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JOHN/ABBOTT MASTER PLAN

TRANSPORTATION IMPACT ANALYSIS

ADMINISTRATIVE DRAFT REPORT (REVISED)

SALINAS, CALIFORNIA

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1 INTRODUCTION

The Salinas Mixed Use Master Plan project is being proposed to be located at the southeast corner of the John Street (State Route 68, i.e., SR 68) / Abbott Street intersection in Salinas, California. The Project site covers approximately 21 acres and will be composed of residential, commercial, office land uses and a hotel on multiple parcels. It is currently occupied by a variety of agricultural industrial developments.

The locations of the Project site and study area are indicated in **Exhibit 1**. The Project site plan is shown in **Exhibit 2A.** The project phasing is shown in **Exhibit 2B.**

This report summarizes the analysis of potential traffic operations and adverse effects associated with the proposed Project as well as cumulative effects. Existing and Cumulative conditions are analyzed with and without the Project. Vehicular, pedestrian, bicycle and transit circulation are evaluated at the Project site and the immediate surrounding street network.

A Vehicle Miles Traveled (VMT) analysis is also included to comply with current California Environmental Quality Act (CEQA) requirements.

1.1 Scope of Work

This report addresses the following topics:

1. Existing vehicular, pedestrian and bicycle circulation on the surrounding street network.
2. Assessment of potential adverse effects to vehicular, pedestrian, bicycle, and transit circulation due to the Project, and recommendations to minimize or alleviate those effects.
3. Assessment of potential cumulative traffic effects.
4. Site access and on-site circulation assessment.
5. VMT analysis.

1.2 Study Network

The AM and PM peak periods were analyzed at the following 19 intersections. The agency having jurisdiction over each intersection is indicated in parentheses. Their locations are indicated on **Exhibit 1**.

1. Intersection 1 – E Market Street–Sherwood Drive / Market Way–E Market Street (City of Salinas)
2. Intersection 2 – Front Street / E Alisal Street (City of Salinas)
3. Intersection 3 – Abbott Street / John Street (SR 68) (Caltrans)
4. Intersection 4 – Spring Street / John Street (SR 68) (Caltrans)
5. Intersection 5 – S Sanborn Road / John Street (City of Salinas)
6. Intersection 6 – Abbott Street / Maple Street (City of Salinas)
7. Intersection 7 – Abbott Street / Spicer Street (City of Salinas)
8. Intersection 8 – Abbott Street / Alameda Avenue (City of Salinas)
9. Intersection 9 – Abbott Street / Los Palos Drive – Malarin Street (City of Salinas)
10. Intersection 10 – Abbott Street / E Romie Lane – Abbott Place (City of Salinas)
11. Intersection 11 – E Blanco Road – S Sanborn Road / Abbott Street (City of Salinas)

1.3 Analysis Scenarios

Traffic operations for the following analysis scenarios were analyzed:

1. Existing Conditions
2. Existing Plus Project Conditions
3. Cumulative Without Project Conditions
4. Cumulative Plus Project Conditions

Improvements recommended to offset adverse effects for each development scenario are recommended where warranted.

1.4 Traffic Operation Evaluation Methodologies

Intersection traffic operations were evaluated based upon the level of service (LOS) concept. LOS is a qualitative description of an intersection's operations, ranging from LOS A to LOS F. Level of Service "A" represents free flow uncongested traffic conditions. Level of Service "F" represents highly congested traffic conditions with unacceptable delay to vehicles at intersections. The intermediate levels of service represent incremental levels of congestion and delay between these two extremes. LOS descriptions for each type of existing traffic control at the study intersections (i.e., signal, all-way stop and one-/two-way stop) are included as **Appendix A**.

Intersection traffic operations were evaluated using the Synchro© traffic analysis software (Version 10) using both the 2010 and 2000 Highway Capacity Manual (HCM) methodologies. The average delay is then correlated to a level of service. For two-way stop-controlled intersections, only the vehicle delay for side street traffic is analyzed. LOS for each side street movement is based on the distribution of gaps in the major street traffic stream and driver judgment in selecting gaps. When using the HCM 2010 and 2000 methods for the analysis of signalized and all-way stop-controlled intersections, the overall intersection delay is used to determine LOS.

1.5 Level of Service Standards - Study Network

This study assesses operations at intersections located in two different jurisdictions – City of Salinas and Caltrans. The City of Salinas has an overall level of service (LOS) standard of Level of Service (LOS) D. The overall Caltrans level of service standard is the transition between LOS C and LOS D, abbreviated herein as LOS C-D.

As noted in Section 1.4, the Highway Capacity Manual does not provide overall levels of service for one-way stop-controlled intersections; rather, it only provides side-street operations for this type of traffic control. Side-street operations represent delay for the entire stop-controlled approach, regardless of the number of lanes. Also, side street traffic volumes are typically much lower than volumes on the major street and only represent a small portion of the overall intersection operations.

1.6 Significance Criteria

Two different criteria have been used to assess the impacts and adverse effects of this Project – one for environmental impacts and one for local adverse effects. The environmental impacts refer to impacts assessed per California Environmental Quality Act (CEQA) guidelines. Local adverse

effects are assessed relative to the City of Salinas General Plan and Caltrans level of service standards. The following criteria and thresholds have been used in this study:

1.6.1 Environmental (CEQA)

Effective as of July 2020, Senate Bill (SB) 743 requires that transportation impacts for projects per the California Environmental Quality Act (CEQA) be based on a project's Vehicle Miles Traveled (VMT), rather than level of service. The publication *Technical Advisory on Evaluating Transportation Impacts in CEQA,* State of California Governor's Office of Planning and Research, December 2018, suggests that a significant environmental (CEQA) VMT threshold for various land use categories. The *Senate Bill 743 Vehicle Miles Traveled Implementation Policy - City of Salinas, Final Interim Policy*, October 13, 2020, is the basis for the evaluation of the Project's VMT impact significance.

1.6.2 City of Salinas (Local)

For the purposes of this analysis, an adverse effect would occur at any study intersection under the jurisdiction of the City of Salinas under the following circumstances:

Signalized or All-Way Stop-Controlled Intersection (Intersections 1-3, 5, and 9-11):

- An adverse effect would occur if an intersection operating at LOS A, B, C, or D pre-Project degrades to E or F with the addition of Project traffic.
- For intersections already operating at unacceptable level E or F pre-Project, any increase (one vehicle) in traffic is considered to be an adverse effect.

One- or Two-Way Stop-Controlled Intersection (Intersections 6-8):

- An adverse effect would occur if the side-street at an intersection operating at LOS A, B, C or D pre-Project degrades to LOS E or F with Project traffic AND if any traffic signal warrant is met with the addition of Project traffic; or
- For side-streets already operating at LOS E or F pre-Project, an adverse effect would occur with the addition of any Project traffic during the deficient peak hour AND if any traffic signal warrant is met with the addition of Project traffic.

1.6.3 Caltrans (local)

For the purposes of this analysis, an adverse effect would occur at any intersection under the jurisdictions of Caltrans under the following circumstances:

One- or Two-Way Stop-Controlled Intersection (Intersection 4,12):

- An adverse effect would occur if the side-street at an intersection operating at LOS A, B or C pre-Project degrades to LOS D, E or F with Project traffic; or
- For side-streets already operating at LOS D, E or F pre-Project, the addition of any Project traffic during the deficient peak hour would be considered an adverse effect, regardless of its effects on delay.

1.7 Impact Fees

The Project will be assessed the following two transportation impact fees.

1.7.1 Transportation Agency for Monterey County

The Transportation Agency for Monterey County (TAMC) and its member jurisdictions have adopted a county-wide, regional development impact fee to cover the costs for studies and construction of many roadway improvements throughout Monterey County. This impact fee, which went into effect on August 27, 2008, is applied to new development within Monterey County. The governing document for the fee is the *Regional Impact Fee Nexus Study Update* (March 26, 2008) prepared by Kimley-Horn Associates, Inc. *The Regional Impact Fee Nexus Study Update* was updated in October 2018 by Wood Rodgers.

TAMC, Monterey County and Caltrans have agreed that the payment of the TAMC fee satisfies the Project's fair share contribution to improvements that alleviate cumulative adverse effects throughout the regional highway system. This includes highways that will operate deficiently but no capital improvement project is currently programmed to correct the deficiency. Projects partially funded by the TAMC fee in North Monterey County and the vicinity of Salinas are listed below.

1. TAMC Improvement 2 – SR 156 Widening from US 101 to Castroville Boulevard
2. TAMC Improvement 4 - Davis Road North from Blanco Road to Market Street (SR183)
3. TAMC Improvement 5 – Davis Road South from Blanco Road to Reservation Road, including replacement of bridge over Salinas River
4. TAMC Improvements 7 - US-101 - South County Phase 1 (Frontage Roads - Salinas to Chualar)
5. TAMC Improvement 8 – US-101 South County Phase 2 (Harris Road)
6. TAMC Improvement 10 – US 101 Widening from Airport Boulevard to Boronda Road

Additional funding will be provided by Measure X, the Transportation Sales Tax measure. These local funding sources are anticipated to leverage State and federal funding sources to fully fund the improvements. Toll roads are also being considered as a funding source.

1.7.2 Salinas Traffic Improvement Program

The City of Salinas Traffic Improvement Program – 2010 Update, Wood Rodgers, March 2010, is the technical document used to establish the Salinas Traffic Fee Ordinance (TFO), which is the primary funding source for transportation improvements to offset adverse effects of cumulative development as the City builds out its current General Plan.

Improvements included in the Traffic Improvement Program that are located in the vicinity of the Project site are listed below along with their individual TFO project number.

1. TFO 30 – Rossi Street Widening. Widen W Rossi Street to four lanes between N Main Street and Sherwood Drive.
2. TFO 32 – Widen US 101. Widen US 101 to six lanes between Sala Road and Harris Road.

3. TFO 37A, 37B and 37C – Sanborn Road Improvements. Construct the following:
    a. Widen Sanborn Road to six lanes between John Street and Abbott Street;
    b. Signalize the S Sanborn Road / US 101 Northbound Off-Ramp – Fairview Avenue intersection. This improvement was completed in 2017;
    c. Widen Fairview Avenue to three lanes between S Sanborn Road and US 101 Northbound Ramps; and
    d. Construct Elvee Drive extension between Work Street and 925 feet east of Work Street, including a new bridge over an existing drainage ditch, plus disconnect Elvee Drive at S Sanborn Road.
4. TFO 38 – Airport Boulevard / US 101 Interchange Upgrade. Implement the previously approved Caltrans Project Study Report (PSR) improvements to the US 101 Southbound ramps at Airport Boulevard.
5. TFO 39 – Harris Road / US 101 Interchange. Construct a full interchange on US 101 at Harris Road, replacing the existing partial interchange at Abbott Street.
6. TFO 41 – Blanco Road Widening. Widen W Blanco Road to four lanes between Reservation Road near Marina and W Alisal Street in Salinas.
7. TFO 42 – Abbott Street Widening – John Street to Romie Lane. Add left turn channelization along Abbott Street by widening Abbott Street where feasible and eliminating on-street parking in both directions between John Street and Romie Lane.
8. TFO 43 – Alisal Street Improvements. Add left turn channelization at major intersections between Monterey Street and Front Street.
9. TFO 44 – John Street Improvements. Add left turn channelization and eliminate street parking between Abbott Street and Alisal Street.
10. TFO 59 – Main Street (RTE 68) / Blanco Road Intersection. Construct various improvements at the S Main Street (SR 68) / E Blanco Road intersection.
11. TFO 64 – Romie Lane (Pajaro to Alameda). Widen E Romie Lane to four lanes between Pajaro Street and California Street.
12. TFO 65 – John Street at US 101 (Overpass). Widen the existing John Street overpass of US 101 to four lanes.
13. TFO 66 – Elvee Drive (Work Street to Reclamation Ditch). Included in TFO 37B – Construct Elvee Drive extension between Work Street and 925 feet east of Work Street.
14. TFO 67 – Work Street / Terven Avenue / Sanborn Road Intersection. Construct various intersection improvements at the S Sanborn Road / Work Street – Terven Avenue intersection.
15. TFO 68 – Abbott Street / E. Blanco Road / Sanborn Road Intersection. Construct various intersection improvements at the E Blanco Road – S Sanborn Road / Abbott Street intersection.

16. TFO 69 – Hansen Street / Airport Boulevard Intersection. Construct various intersection improvements at the Hansen Street / Airport Boulevard intersection.
17. TFO 70 – Hansen Street / Harkins Road Intersection. Construct various intersection improvements at the Hansen Street / Harkins Road intersection.
18. TFO 71 – Abbott Street / Harkins Road Intersection. Construct various intersection improvements at the Abbott Street / Harkins Road intersection.
19. TFO 72 – Abbott Street / Merrill Street Intersection. Construct various intersection improvements at the Abbott Street / Merrill Street intersection.
20. TFO 73 – Davis Road / Blanco Road Intersection. Construct various intersection improvements at the S Davis Road / W Blanco Road intersection.
21. TFO 74 – Abbott Street Widening – Harkins Road to Harris Road. Widen and reconstruct the northeast frontage of Abbott Street between Harkins Road and Harris Road.
22. TFO 75 – Airport Boulevard / US 101 Southbound Off-Ramp Widening. Widen the existing US 101 southbound offramp at Airport Boulevard to two lanes. This is part of TFO 38 – Airport Boulevard / US 101 Interchange Upgrade.

2 EXISTING TRAFFIC CONDITIONS

This chapter evaluates Existing traffic conditions and includes a description of the Project setting.

2.1 Existing Traffic Network

The Project is located at the southeast corner of Abbott Street and John Street (SR 68) in the City of Salinas. It is approximately a half-mile southeast of downtown Salinas and one-third mile west of US 101.

The key roadways in the vicinity of the Project include US 101, Abbott Street, John Street (SR 68), E Market Street, Sherwood Drive, Front Street, E Alisal Street, S Sanborn Road, E Romie Lane and E Blanco Road. Other roadways in the study area include Market Way, Spring Street, Maple Street, Spicer Street, Alameda Avenue, Los Palos Drive, Malarin Street, and Abbott Place. These facilities are described below, in alphabetical order:

Abbott Place is a two-lane local street providing access to various industrial and ag industrial facilities that is a frontage street immediately east of Abbott Street near East Romie Lane. Its unposted speed limit is 25 miles per hour (mph).

Abbott Street is a four-lane major arterial street providing access to residential neighborhoods, commercial uses, and industrial and ag industrial facilities west of the Union Pacific railroad tracks. Its posted speed limit is 35 mph.

Alameda Avenue is a two-lane residential collector street providing access to neighborhoods west of Abbott Street and north and south of E Romie Lane. It also provides access to commercial properties near its intersection with Abbott Street and medical offices near its intersection with E Romie Lane. Its presumed speed limit is 25 mph.

East Alisal Street is a two- to four-lane major arterial street providing access to residential neighborhoods and commercial properties east and west of downtown Salinas. It also provides access into the heart of downtown Salinas. Its posted speed limit is 35 mph east of Front Street and 25 mph west of Front Street.

East Blanco Road is a three- to four-lane major arterial street in southern Salinas, connecting the industrial and ag industrial facilities in southern Salinas with Marina and the greater Monterey Peninsula. The posted speed limit on Blanco Road in the study area is 45 mph.

Front Street is a two- to four-lane street in Salinas. North of Abbott Street, Front Street is a four-lane major arterial street providing access to residential and commercial properties. South of Abbott Street, Front Street is a two-lane local street that also provides access to residential neighborhoods and commercial properties. The posted speed limit on Front Street is 35 mph between East Alisal Street and Abbott Street and 25 mph north of East Alisal Street. The presumed speed limit on Front Street south of Abbott Street is 25 mph.

John Street is a two- to four-lane major arterial south of downtown Salinas. It provides access to residential neighborhoods, commercial uses and industrial and ag industrial facilities. Between S Main Street and S Wood Street, John Street is also SR 68, which connects Salinas and Monterey via Spreckels and Toro Park. The posted speed limit on John Street is 30 mph west of Abbott Street and 35 mph east of Abbott Street.

Los Palos Drive is a two-lane collector street providing access to residential neighborhoods and medical offices near Salinas Valley Memorial Hospital (SVMH). It also provides access to the emergency room at SVMH via its connection to San Jose Street. Its speed limit is 25 mph.

Malarin Street is a two-lane collector street providing access to medical offices, industrial and ag industrial facilities east of Abbott Street near Los Palos Drive. Its speed limit is 25 mph.

Maple Street is a two-lane primarily residential collector street, providing access to residential neighborhoods south of John Street (SR 68) between South Main Street (SR 68) and Abbott Street. It also provides access to various commercial uses near its intersections with South Main Street and Abbott Street. The presumed speed limit on Maple Street is 25 mph.

East Market Street is a two- to four-lane major arterial street through central Salinas. West of downtown Salinas, it provides access to various commercial and industrial areas, as well as the Salinas Amtrak train station. East of downtown Salinas, it provides access to commercial and industrial areas and residential neighborhoods, including the Alisal district of eastern Salinas. In addition, Market Street west of Salinas Street is also State Route 183 (SR 183), which provides direct access to the unincorporated community of Castroville and connections to Monterey and Santa Cruz. The posted speed limit on East Market Street is 25 mph west of Sherwood Drive and 35 mph east of Sherwood Drive.

Market Way is a two-lane local street serving the Chinatown district of Salinas. The presumed speed limit is 25 mph.

East Romie Lane is a two- to four-lane street extending between Abbott Street and west of South Main Street (SR 68). It is a minor arterial between S Main Street (SR 68) and Abbott Street, and a collector street west of S Main Street (SR 68). East Romie Lane is four lanes wide east of Alameda Avenue and two lanes wide west of Alameda Avenue. East Romie Lane provides access to residential neighborhoods north and south of it, SVMH and the various medical offices near the hospital, and commercial properties. The posted speed limit on East Romie Lane in the study area is 35 mph east of California Street and 25 mph west of California Street.

South Sanborn Road is a four- to five-lane major arterial street provides the primary access to the Boronda area from North Davis Road. It is a two-lane east-west arterial that extends from the Davis Road/Laurel Drive intersection to Boronda Road. The posted speed limit on South Sanborn Road is 45 mph.

Sherwood Drive is a four-lane major arterial street connecting northern and downtown Salinas. At East Bernal Drive, its name changes to **Natividad Road**. It provides access to residential neighborhoods and commercial uses. In the vicinity of the study area, the posted speed limit on Sherwood Drive is 35 mph.

Spicer Street is a two-lane collector street providing access to commercial, industrial, and ag industrial facilities east of Abbott Street and south of John Street (SR 68). The presumed speed limit on Spicer Street is 25 miles per hour (mph).

Spring Street is a two-lane local street providing access to its fronting residential, commercial, and industrial properties. The presumed speed limit is 25 mph.

US 101 is a regional north-south facility through the City of Salinas. It is currently a four-lane roadway with interchanges in the city. The posted speed limit through the city is 65 mph. The nearest and most direct interchange access point to the Project from US 101 is the John Street (SR 68) interchange.

2.2 Existing Pedestrian Network

Sidewalks are nearly continuous throughout the entire study area. There is an approximately 5-foot sidewalk along the Project frontages of both Abbott and John Streets (SR 68). These sidewalks connect to nearly all of the other sidewalks in the study area. The only gaps in sidewalks in the study are as follows:

1. John Street (SR 68) at the at-grade Union Pacific railroad crossing (both directions)

Crosswalks are striped at all signalized study intersections and some unsignalized study intersections. Near the Project site, crosswalks are striped across all approaches at the Abbott Street / John Street (SR 68), as well as at the following unsignalized intersections:

1. Spring Street / John Street (SR 68) – only across north leg of Spring Street;
2. Front Street / John Street (SR 68) – only across north and south legs of Front Street;
3. Abbott Street / Maple Street – across Maple Street and only across north leg of Abbott Street;
4. Abbott Street / Alameda Avenue – across west leg of Alameda Avenue and only across north leg of Abbott Street .

2.3 Existing Bicycle Network

There are four types of bicycle facilities defined by Caltrans. Each type is described below:

1. Bike path (Class I) – A separate right-of-way designed for the exclusive use of bicycle and pedestrian traffic with crossflow minimized.
2. Bike lane (Class II) – A striped lane for one-way bike travel on a street or highway, typically including signs placed along the street segment.
3. Bike route (Class III) – Provides a shared use with pedestrian or motor vehicle traffic. Typically, these facilities are city streets with signage designating the segment for Bike Route without additional striping or facilities.
4. Separated Bikeways (Class IV) – A bikeway for the exclusive use of bicycles and includes a separation between the bikeway and the through vehicular traffic. The separation may include, but is not limited to, grade separation, flexible posts, inflexible posts, inflexible barriers, or on-street parking.

A bicycle network map for Monterey County is included in **Appendix B**. This map is cited from *Transportation Agency for Monterey County Bicycle and Pedestrian Master Plan,* Alta Planning + Design, December 2011 (“TAMC Bicycle and Pedestrian Master Plan”).

Bicycle facilities are provided along the following roadways in the study network:

- Bike Lane (Class II):

a. Abbott Street, between Harkins Road and Front Street (both directions). This includes the Project frontage.
b. John Street, generally between Wood Street and S Sanborn Road as well as between the Union Pacific Railroad (UPRR) tracks and Work Street.
c. Front Street, between Abbott Street and E Alisal Street.
d. E Alisal Street, between Front Street and Griffin Street (both directions).
e. Sherwood Drive, between E Market Street and E Bernal Drive.

- Bike Route (Class III):
  a. Maple Street, between Abbott Street and S Main Street (SR 68) (both directions).
  b. All of SR 68 in Salinas is also designated as a Caltrans bike route. This includes John Street between Main Street and the UPRR tracks, which includes the Project's John Street frontage. However, there are no physical bicycle facilities or signs on either John Street indicating this designation.

Pavement delineation of the signed Class II bike lanes in the study area is poor or non-existent in some parts of the study area. This includes southbound Abbott Street between John Street (SR 68) and Maple Street, where there is no bike lane striping at all, despite the "Bike Lane" sign just south of John Street (SR 68).

2.4 Existing Transit Service

Monterey-Salinas Transit (MST) provides fixed-route bus service in Monterey County and Peninsula cities. Three MST bus lines provides service near the study Project site:

c. Line 23 (Salinas – King City). This line provides weekday and weekend service roughly every 30-120 minutes between roughly 4:00 AM – 10:30 PM.
d. Line 82 (Fort Hunter Liggett – Salinas Express). This line provides weekday service via just five runs (two AM runs and three PM runs) and weekend service via just three runs (one AM run and two PM runs).
e. Line 86 (King City – San Jose/SJ Airport). This line provides weekday service via just four runs (two AM runs and two PM runs) and weekend service via just eight runs (four AM runs and four PM runs).

There are three bus stops in the vicinity of the Project – all are on Abbott Street, and all are only serviced by Line 23. These bus stops locations are as follows:

f. Abbott Street northbound, just north of Maple Street. This is adjacent to the Project site.
g. Abbott Street southbound, just south of John Street (SR 68). This is located directly across the street from the Project site.
h. Abbott Street northbound, just north of Summer Street. This is located about 700 feet north of the Project site, or a less than a 5-minute walk from the Project site.

2.5 Existing Conditions Traffic Circulation

2.5.1 Intersection Operations

Traffic volumes were counted at the study intersections during the AM (7:00 – 9:00 AM) and PM (4:00 – 6:00) 2-hour peak periods on Thursday, November 21, 2019. Traffic data was collected for cars, trucks, buses, bicyclists, and pedestrians. From these counts, the AM and PM peak hour volumes were derived. Traffic volumes at immediately adjacent study intersections were also balanced as necessary. **Exhibit 3** depicts the peak turning movement volumes for the study intersections under Existing Conditions. **Appendix C** contains the traffic count data collected at these study intersections.

The traffic counts at the study intersections were collected in November 2019, outside of the peak agricultural harvest season of the summer months. The high number of agricultural processing and distribution facilities in and near the study network increases traffic in and through the area during the peak season, principally along Abbott Street, Sanborn Road and Blanco Road. To account for this, seasonal adjustments were applied to the study network volumes. These adjustments were developed based on recent and historical peak-season traffic counts at study intersections that were collected for other traffic studies and by the City of Salinas. In addition, review of the Existing condition (Off Season) volumes (**Exhibit 3**) and Caltrans ramp volumes indicate that many vehicles to and from the agricultural industrial corridors on Abbott Street and Sanborn Road use the John Street ramps at US 101 rather than the Sanborn Road or Airport Boulevard ramps, likely to avoid existing congestion at those other ramps. In total, these adjustments represent an average volume increase of approximately 10.7% over non-seasonal volumes. As a comparison, a review of the volumes in *Salinas Ag-Industrial Center Traffic Impact Analysis,* Higgins Associates, September 2, 2008, indicates that peak season volumes were approximately 9% higher than the off-peak volumes in that analysis. Seasonal growth calculations are included in **Appendix D**.

Exhibit 4 contains the resulting seasonal volume adjustments at each of the study intersections. These were added to the Existing volumes (Off Season) to estimate the Existing Peak Season condition volumes depicted in **Exhibit 5**. All analysis scenarios in this report are based on the peak season adjustment volumes in **Exhibit 5**. The warrant worksheet evaluations (**Appendix I**) also use the intersection volumes with the peak season adjustments.

Existing Peak Season intersection lane configurations, traffic controls and levels of service at the study intersections are summarized in **Exhibit 6A**. Recommended intersection improvements are summarized in **Exhibit 6B**. The LOS calculation sheets for Existing Peak Season conditions can be found in **Appendix E**.

Most of the study intersections currently operate at or better than their level of service standards. However, the following four intersections currently operate below their respective standards:

1. Intersection 3 – Abbott Street / John Street (SR 68) – LOS D (AM), LOS E (PM).
2. Intersection 4 – Spring Street / John Street (SR 68) – Side-Street LOS D (AM), LOS F (PM).
3. Intersection 6 – Abbott Street / Maple Street – Side-Street LOS F (AM), LOS E (PM).

4. Intersection 8 – Abbott Street / Alameda Avenue – Side-Street LOS E (AM, PM)

The recommended improvements at these four intersections are as follows. With these improvements all study intersections would operate at acceptable levels of service.

1. Intersection 3 – Abbott Street / John Street (SR 68):
    a. Add second westbound John left turn lane; and
2. Intersection 4 – Spring Street / John Street (SR 68) – Modify John Street median to:
    a. Prevent eastbound John left turn movement;
    b. Prevent northbound Spring left and through movements; and
    c. Prevent southbound Spring left and through movements.
3. Intersection 13 – Abbott Street / Maple Street – Project Driveway:
    a. Add eastbound Maple right turn lane. This improvement can be implemented by prohibiting on-street parking along approximately 75 feet of Maple Street near the intersection;
    b. Add northbound Abbott left turn lane (Salinas TFO 42); and
    c. Add southbound Abbott left turn lane (Salinas TFO 42).
4. Intersection 15 – Abbott Street / Alameda Avenue:

    No improvements required.

2.5.2 Pedestrian Circulation

There is a moderate level of pedestrian activity at many of the study intersections. The study intersections average about 19 pedestrian crossings during both the AM and PM peak hours. The highest overall crossing activity occurs near schools (e.g., S Sanborn Road / John Street – 57 crossings (AM) and 104 crossings (PM)). Nearer to the Project, pedestrian activity is much lower (e.g., Abbott Street / Maple Street – 14 crossings (AM and PM)).

2.5.3 Bicycle Circulation

There is little to no bicycle traffic at any of the study intersections. On average, only two bicyclists traveled through each of the study intersections during the AM and PM peak hours. The highest amount of bicycle traffic during the peak hours was four bicyclists, which occurred at Front Street / E Alisal Street (AM and PM peak hours), Abbott Street / Spicer Street (PM peak hour) and Abbott Street / Alameda Avenue (PM peak hour).

3 EXISTING PLUS PROJECT CONDITIONS

3.1 Project Description

The Project will include residential, commercial, restaurant, general office, medical office, and hotel uses. The quantities of each of the land uses are as follows.

1. 242 apartments
2. 118,400 square feet of general commercial space
3. 30,900 square feet of office space
4. 111-room hotel

The Project is proposed to be developed in 7 phases. A future phase may include the redevelopment of a parcel at the corner of Spicer Street and Brunken Avenue. The land use, size and timing of this phase has not been determined. In addition, this potential future development area is currently fully occupied by an active industrial use. It is likely that there will not be an increase in traffic if this site is redeveloped in the future. It is assumed to remain with its current use in this analysis. **Exhibit 2B** depicts the Project site plan by Project phase. The following section summarizes the trip generation and Project access for each of these phases.

The specific commercial and office land uses within each building are not defined for many of the proposed Project buildings. Where uses are defined (e.g., bank, market), trip generation for that specific use is incorporated into the Project trip generation. Otherwise, for the purpose of estimating the Project trip generation, the generic commercial and office uses are split between Variety Store, Fast Food Restaurant without Drive-Through, Quality Restaurant, General Office, and Medical Office.

The Project proposes two access points as described below.

1. West Access: Addition of a Project Driveway that would expand the existing driveway, which is the fourth leg at the existing Abbott Street / Maple Street intersection.
2. North Access: Existing Spring Street south of John Street (SR 68), which will be limited to right turns in and out.

The Project does not propose any full-access connections to Spicer Street near Brunken Avenue. An emergency vehicle access or pedestrian/bicycle access to Spicer Street is possible. This would not affect traffic operations in the study area. No Spicer Street connection is included in this analysis.

3.2 Project Trip Generation

The following discussion describes each of the seven phases of the Project and its corresponding trip generation. The associated traffic generation for each phase and at full buildout is tabulated on **Exhibit 7.** Sheet 1 of **Exhibit 7** provides trip generation rates for each land use referenced from *Trip Generation Manual,* 10th Edition, Institute of Transportation Engineers (ITE), 2018, unless otherwise noted in the discussions of each Project phase. Sheet 1 also provides an incremental estimate of total Project trips with the addition of each Project phase. Sheet 2 of **Exhibit 7** provides a breakdown of trip generation by land use for each individual phase. Project access for each phase is also discussed below.

1. Phase 1 – Home 2 Suites Hotel

Phase 1 of the Project will include the 111-room Hilton Home 2 Suites Hotel, an extended-stay hotel. It is expected to generate about 693 daily trips with 53 during the AM peak hour and 58 during the PM peak hour, based on the ITE All Suites Hotel (ITE Land Use Category 311) trip generation rate. This assumes a worst case 100% occupancy. In comparison, average occupancy, and corresponding hotel trip generation, will be about 74% of this amount, per ITE.

Project access for Phase 1 will be primarily via a new driveway that will create the east (fourth) leg of the existing Abbott Street / Maple Street intersection. The existing driveway that is the fourth leg of the existing John Street (SR68) / Spring Street intersection is proposed to remain as a full-access driveway.

2. Phase 2 – Buildings 1F, 1H and 1J

Phase 2 of the Project will include:

a. Building 1F (7,900 square feet of variety store and 14 apartments)
b. Building 1H (6,000 square feet of variety store and 6 apartments)
c. Building 1J (7,500 square feet of variety store and 8 apartments)

They are expected to generate a total of about 1,563 daily trips with 81 during the AM peak hour and 161 during the PM peak hour. This will be added to Phase 1. The net trip generation total for Phases 1 and 2, assuming 5% internal trips, is expected to be about 2,143 daily trips with 127 during the AM peak hour and 208 during the PM peak hour.

Project access for Phases 1 and 2 is proposed to be the same as Phase 1.

3. Phase 3 – Buildings 1G and 1I

Phase 3 of the Project will include:

a. Building 1G (12,800 square feet total, envisioned to include 3,200 square feet of variety store, 3,200 square foot fast food restaurant without drive-through, 4,480 square feet of general office and 1,920 square feet of medical office)
b. Building 1I (12,800 square feet total, envisioned to include 3,200 square feet of variety store, 3,200 square foot quality restaurant, 4,480 square feet of general office and 1,920 square feet of medical office)

They are expected to generate a total of about 2,004 daily trips with 122 during the AM peak hour and 184 during the PM peak hour. This will be added to Phases 1 and 2. The net trip generation total for Phases 1 through 3, assuming 10% internal trips, is expected to be about 3,834 daily trips with 230 during the AM peak hour and 362 during the PM peak hour.

Project access for Phases 1 through 3 is proposed to be the same as Phase 1.

4. Phase 4 – Buildings 1D and 1E

Phase 4 of the Project will include:

a. Building 1D (8,500 square feet total, envisioned to include a 4,250 square feet of variety store and 4,250 square foot fast food restaurant without drive-through)
b. Building 1E (5,500 square feet total, envisioned to include a 2,750 square feet of variety store and 2,750 square foot quality restaurant)

They are expected to generate a total of about 2,147 daily trips with 132 during the AM peak hour and 189 during the PM peak hour. This will be added to Phases 1 through 3. The net trip

generation total for Phases 1 through 4, assuming 10% internal trips, is expected to be about 5,766 daily trips with 349 during the AM peak hour and 533 during the PM peak hour.

Project access for Phase 4 will be the same as for Phases 1 through 3 plus the conversion of the Project's existing Spring Street driveway of John Street (SR 68) into a right-in / right-out driveway for the Project.

5. Phase 5 – Buildings 1B and 1C

Phase 5 of the project will include:

a. Building 1B (5,500 square feet total, envisioned to include 2,750 square feet of variety store and 2,750 square foot fast food restaurant without drive-through)
b. Building 1C (5,000 square feet total, envisioned to include 2,500 square feet of variety store and 2,500 square foot quality restaurant)

They are expected to generate a total of about 1,496 daily trips with 88 during the AM peak hour and 134 during the PM peak hour. This will be added to Phases 1 through 4. The net trip generation total for Phases 1 through 5, assuming 10% internal trips, is expected to be about 7,121 daily trips with 432 during the AM peak hour and 657 during the PM peak hour.

Project access for Phase 5 will be the same as for Phases 1 through 4.

6. Phase 6 – Buildings 3A, 3B, 3C, 3D, Butler Building, 3E, 3F and 4

Phase 6 of the Project will include:

a. Building 3A (4,800 square feet of variety store and 4 apartments)
b. Building 3B (5,400 square feet of variety store and 18 apartments)
c. Building 3C (6,000 square feet of variety store and 6 apartments)
d. Building 3D (13,000 square feet of variety store and 36 apartments)
e. Butler Building (covered parking area)
f. Building 3E (7,000 square feet of variety store and 16 apartments)
g. Building 3F (3,800 square foot bank and 4 apartments)
h. Building 4 (50 apartments)

They are expected to generate a total of about 3,659 daily trips with 222 during the AM peak hour and 422 during the PM peak hour. This will be added to Phases 1 through 5. The net trip generation total, assuming 10% internal trips, is expected to be about 10,405 daily trips with 628 during the AM peak hour and 1,033 during the PM peak hour.

Project access for Phase 6 will be the same as for Phases 1 through 5.

7. Phase 7 – Buildings

Phase 7 of the Project will include:

a. Building 2A (80 apartments)
b. Building 2B (17,000 square feet total, with 8,500 square feet of variety store and 8,500 square feet of general office
c. Building 2C (20,800 square feet total, with 11,200 square foot market and 9,600 square feet of medical office)

They are expected to generate a total of about 2,738 daily trips with 144 during the AM peak hour and 249 during the PM peak hour. This will be added to Phases 1 through 6 and will result in Project buildout. The net trip generation total for the entire Project (Phases 1-7), assuming

10% internal trips, is expected to be about 12,870 daily trips with 758 during the AM peak hour and 1,257 during the PM peak hour.

Project access for Phase 7 is proposed to be the same as Phases 1-6.

Note: The operational analysis in this report uses a slightly higher project trip generation, which is based on a prior and now superseded project definition. The net analyzed trip generation total for the entire Project (Phases 1-7), assuming 10% internal trips, is 13,029 daily trips with 776 during the AM peak hour and 1,280 during the PM peak hour. Therefore, the analysis represents a slightly more conservative analysis.

3.3 Project Trip Distribution and Assignment

Exhibit 8 depicts the trip distribution for the Project at full buildout. The trip distribution was combined with the Project trip generation to derive the Project trip assignment depicted in **Exhibit 9**.

3.4 Existing Plus Project Condition Traffic Circulation

3.4.1 Intersection Operations

The Project trip assignment (**Exhibit 9**) was added to the Existing Peak Season traffic volumes in **Exhibit 5** to estimate the Existing Plus Project volumes on **Exhibit 10**.

Existing Plus Project condition intersection levels of service are summarized on **Exhibit 4A**. Recommended intersection improvements are summarized on **Exhibit 4B**. The LOS calculation sheets for Existing Plus Project conditions can be found in **Appendix F**.

Most of the study intersections will operate at or better than their level of service standards. However, the following nine intersections will operate below their respective standards:

1. Intersection 3 – Abbott Street / John Street (SR 68) – LOS E (AM, PM)
2. Intersection 4 – Spring Street / John Street (SR 68) – Side-Street LOS F (PM)
3. Intersection 6 – Abbott Street / Maple Street – Side-Street LOS F (AM, PM)
4. Intersection 8 – Abbott Street / Alameda Avenue – Side-Street LOS F (AM, PM)

Below is a discussion of the recommended improvements needed to improve operations to an acceptable or better level of service under Existing Plus Project conditions.

1. Intersection 3 – Abbott Street / John Street (SR 68):

   The overall level of service under Existing Plus Project conditions would be LOS E (AM, PM), compared to LOS D (AM) and LOS E (PM) without the Project. Per the criteria in Section 1.6, the Project would result in an adverse effect at this intersection.

   - Recommendation:
     a. Add a second westbound John left turn lane; and
     b. Add a second northbound Abbott right turn lane.

- Operations after implementation of Improvement: LOS D (PM). Although the resulting LOS with improvement is still deficient per Caltrans standards, delay is better than pre-project conditions and meets City of Salinas standards.
- Responsibility for Improvement: The Project will be responsible for implementation of this improvement.
- Just a single northbound right turn lane (Alternative 1) would only achieve LOS E during PM peak hour, hence a second right turn lane (Alternative 2) is recommended. A single northbound right turn lane with a right turn overlap (right turn green arrow current with the westbound John left turn lane) could be considered. However, westbound to eastbound U-turns would need to be prohibited. This will be an important movement to minimize the southbound Abbott left turn volume at the Project's Maple Street entrance.

2. Intersection 4 – Spring Street / John Street (SR 68):

   The side-street (Spring Street) level of service under Existing Plus Project conditions would be LOS LOS F (PM), compared to LOS D (AM) and LOS F (PM) without the Project. The Caltrans peak hour signal warrant will not be met at this intersection as indicated in **Appendix I**. Per the criteria in Section 1.6, the Project would result in an adverse effect at this intersection.

   - Recommendation:
     a. Fully Close the John Street Median to:
        i. Prevent the eastbound John left turn movement;
        ii. Eliminate the existing westbound John left turn movement;
        iii. Prevent the northbound Spring left and through movements; and
        iv. Prevent the southbound Spring left and through movements.
   - Operations after implementation of Improvement: LOS C (PM), LOS F near E (PM).
   - Responsibility for Improvement: The Project will be responsible for implementation of this improvement.

3. Intersection 6 – Abbott Street / Maple Street – Project Driveway:

   The side-street level of service under Existing Plus Project conditions would be LOS F (AM, PM), compared to LOS F (AM) and LOS E (PM) without the Project. The Caltrans peak hour signal warrant will be met at this intersection as indicated in **Appendix I**. Per the criteria in Section 1.6, the Project would result in an adverse effect at this intersection.

- Recommendation:
  a. Add eastbound Maple right turn lane. This improvement can be implemented by prohibiting on-street parking along approximately 75 feet of Maple Street near the intersection, which includes the 7-11 convenience store driveway and one parallel parking space west of the driveway. Parking is already prohibited between the 7-11 driveway and Abbott at the existing fire hydrant.
  b. Add northbound Abbott left turn lane (included in Salinas TFO 42);
  c. Add southbound Abbott left turn lane (included in Salinas TFO 42);
  d. Provide separate westbound Maple (Project Exit) left/through and right turn lanes;
  e. Signalize Intersection; and
  f. Add westbound right turn overlap signal phase.
- Operations after Implementation of Improvement: LOS B (AM), LOS D (PM).
- Responsibility for Improvement: The Project will be responsible for implementation of this improvement. The Project would also be eligible for a reduction in its applicable TFO fee through implementation of recommended TFO improvements, if not already implemented by the City of Salinas.
- Signalization, along with the other improvements, is the preferred option for improving operations not only under the Existing Plus Project scenario but also under Cumulative Without Project conditions. The existing Abbott / John (SR 68) intersection will create some additional gaps in traffic that would accommodate some traffic to and from Maple, but not enough gaps to adequately reduce delays on its own. Eastbound and westbound left-turn prohibitions are not recommended due to a lack of desirable alternative routes for these movements. For example, northbound Abbott at John (SR 68) currently prohibits U-turns, precluding this as an alternative for existing northbound Abbott left turns at Maple.

4. Intersection 8 – Abbott Street / Alameda Avenue:

   The level of service under Existing Plus Project conditions would be LOS E/F (AM) and LOS F (PM), compared to LOS E (AM, PM) without the Project. The Caltrans Peak Hour signal warrant will not be met at this intersection as indicated in **Appendix I**. The calculations also do not consider that gaps in northbound and southbound Abbott Street traffic will be provided by the existing traffic signals at John Street (1,700 feet to the north) and Los Palos Drive (1,300 feet to the south). In addition, more distinct gaps will be provided by the proposed traffic signal that will be implemented by the Project at the Maple Street intersection (900 feet to the north). This will at least partially offset the additional delay at this intersection resulting from the Project.

   Per the criteria in Section 1.6, because the intersection will not warrant a traffic signal with Project traffic, the Project would not result in an adverse effect at this intersection. However, the Project will be responsible for the payment of Salinas TFO fees which

will be the funding source for the following (or some equivalent) improvements by the City of Salinas

a. Add a northbound left turn lane (Salinas TFO 42); and

b. Add a northbound Abbott median acceleration lane north of the intersection. This could also be in the form of a two-way left turn if preferred by the City of Salinas (Salinas TFO 42).

c. Consider adding an eastbound Alameda right turn lane. This improvement can be implemented by prohibiting on-street parking along approximately 75 feet of both sides of Alameda Avenue near the intersection. Most on-street parking in this area is already prohibited in this area.

3.4.2 Pedestrian Circulation

Pedestrian activity is anticipated to increase in the Project vicinity due to the Project. This will include students living on the Project site who will walk to nearby schools. The existing signal at the Abbott Street / John Street (SR 68) intersection and the recommended signal at the Abbott Street / Maple Street intersection will facilitate pedestrians to cross both Abbott Street and John Street (SR 68). The existing sidewalks along the project frontage will also provide adequate pedestrian circulation to the Project site. Therefore, the Project would not represent an adverse effect to pedestrian circulation.

3.4.3 Bicycle Circulation

The Project is anticipated to generate a minor amount of bicycle traffic. Bike lanes are present on Abbott Street along the project frontage, continuing north and south of the Project site. Maple Street is currently designated as a bike route. This facilitates bicycle traffic between the Project site and nearby schools. John Street, as SR 68, is also designated as a Caltrans bike route, although there are no physical bicycle facilities or signs on this street along the Project frontage. These facilities and designations are consistent with the bike and pedestrian master plans discussed in **Section 2.3 - Existing Bicycle Network** earlier in the report. The existing facilities will accommodate the increase in bicycle traffic generated by the Project. Therefore, the Project would not represent an adverse effect to bicycle circulation.

3.4.4 Transit Circulation

The Project is anticipated to generate minimal transit demand. The existing transit service and bus stops in the vicinity of the Project site can accommodate this additional demand. Therefore, the Project would not represent an adverse effect to transit service.

3.5 Impact Fees

The Project will be required to pay its applicable City of Salinas Traffic Fee Ordinance (Salinas TFO) and Transportation Agency for Monterey County Regional Development Impact Fee (TAMC RDIF) transportation impact fees. Part of the recommended intersection improvements are funded improvements by the Salinas TFO. Therefore, if the Project implements any TFO improvements, the Project would be eligible for corresponding credits toward its TFO fees.

4 CUMULATIVE WITHOUT PROJECT CONDITIONS

This section describes anticipated Cumulative Without Project traffic conditions, which is based on forecasted traffic conditions at buildout of the City of Salinas and Monterey County General Plans. This scenario does not include trips from the study Project. This condition represents conditions in approximately the Year 2045 during the peak season.

4.1 Derivation of Cumulative Without Project Condition Volumes

Traffic volumes under Cumulative Without Project conditions were estimated using volume forecasts from the following four traffic studies that analyzed the study network:

1. *The Draft West Area Specific Plan Transportation Impact Analysis,* Fehr & Peers, June 2018.
2. *Rodeo Property Traffic Impact Analysis,* Mott MacDonald, June 12, 2019.
3. *Salinas Travel Center Draft Traffic Impact Analysis,* Hexagon Transportation Consultants, November 7, 2017.
4. *City of Salinas General Plan Circulation Element and Environmental Impact Report Traffic Study,* Higgins Associates, June 11, 2002.

The Cumulative Without Project scenario also includes vehicle traffic from redevelopment of the Chapin Property, located north of John Street directly across from the study Project. It is anticipated that this property will redevelop with similar uses to the proposed study Project, proportional to its size, which is about 5 acres.

Overall, the Cumulative Plus Project volumes represent an average of 25% growth over the Existing (seasonal) volumes.

The Cumulative Without Project traffic volumes are depicted on **Exhibit 11.**

4.2 Network Modifications under Cumulative Conditions

Cumulative Without Project and Cumulative Plus Project conditions include multiple street network modifications near the study network, which are listed in Section 1.7.2 Salinas Traffic Improvement Program (TFO). The following TFO improvements will divert traffic away from the study network resulting in a beneficial effect on traffic operations in the study area. Nevertheless, General Plan Buildout traffic volumes are ultimately expected to be higher than existing volumes in the study network.

The network modifications are:

1. TFO 30 – Rossi Street Widening. Widen W Rossi Street to four lanes between N Main Street and Sherwood Drive.
2. TFO 32 – Widen US 101. Widen US 101 to six lanes between Sala Road and Harris Road.
3. TFO 37A, 37B and 37C – Sanborn Road Improvements. Construct the following:
    a. Widen Sanborn Road to six lanes between John Street and Abbott Street;

b. Widen Fairview Avenue to three lanes between S Sanborn Road and US 101 Northbound Ramps; and

c. Construct Elvee Drive extension between Work Street and 925 feet east of Work Street, including a new bridge over an existing drainage ditch, plus disconnect Elvee Drive at S Sanborn Road. This improvement is currently under construction.

4. TFO 38 – Airport Boulevard / US 101 Interchange Upgrade. Implement the approved Caltrans Project Study Report improvements to the US 101 Southbound ramps at Airport Boulevard.
5. TFO 39 – Harris Road / US 101 Interchange. Construct a full interchange on US 101 at Harris Road, replacing the existing partial interchange at Abbott Street.
6. TFO 41 – Blanco Road Widening. Widen W Blanco Road to four lanes between Reservation Road near Marina and W Alisal Street in Salinas.
7. TFO 43 – Alisal Street Improvements. Add left turn channelization at major intersections between Monterey Street and Front Street.
8. TFO 64 – Romie Lane (Pajaro to Alameda). Widen E Romie Lane to four lanes between Pajaro Street and California Street.
9. TFO 66 – Elvee Drive (Work Street to Reclamation Ditch). This improvement is part of TFO 37B – Construct Elvee Drive extension between Work Street and 925 feet east of Work Street.
10. TFO 74 – Abbott Street Widening – Harkins Road to Harris Road. Widen and reconstruct the northeast frontage of Abbott Street between Harkins Road and Harris Road.
11. TFO 75 – Airport Boulevard / US 101 Southbound Off-Ramp Widening. Widen the existing US 101 southbound offramp at Airport Boulevard to two lanes. This is part of TFO 38 – Airport Boulevard / US 101 Interchange Upgrade.

The Cumulative Without Project and Cumulative Plus Project traffic forecasts reflect the traffic diversions that would occur due to these network modifications.

4.3 Cumulative Without Project Traffic Conditions

4.3.1 Intersection Operations

Cumulative Without Project intersection levels of service are summarized in **Exhibit 4A**. Recommended intersection improvements are summarized in **Exhibit 4B**. The LOS calculation sheets for Cumulative Without Project traffic conditions can be found in **Appendix G**.

Some of the study intersections are expected to operate at or better than their level of service standards. However, the following nine intersections are expected to operate below their respective standards:

1. Intersection 1 – E Market Street – Sherwood Drive / Market Way – E Market Street – LOS E (PM)
2. Intersection 2 – Front Street / E Alisal Street – LOS E (PM)

3. Intersection 3 – Abbott Street / John Street (SR 68) – LOS F (AM, PM)
4. Intersection 4 – Spring Street / John Street (SR 68) – Side-Street LOS F (AM, PM)
5. Intersection 5 – S Sanborn Road / John Street – LOS F (PM)
6. Intersection 6 – Abbott Street / Maple Street – Side-Street LOS F (AM, PM)
7. Intersection 7 – Abbott Street / Spicer Street – Side-Street LOS F (PM)
8. Intersection 8 – Abbott Street / Alameda Avenue – Side-Street LOS F (AM, PM)
9. Intersection 11 – E Blanco Road – S Sanborn Road / Abbott Street – LOS E (AM)

The recommended improvements at the above intersections are as follows.

1. Intersection 1 – E Market Street – Sherwood Drive / Market Way – E Market Street – Add a westbound E Market right turn overlap signal phase.
2. Intersection 2 – Front Street / E Alisal Street – Add an eastbound E Alisal right turn overlap signal phase.
3. Intersection 3 – Abbott Street / John Street (SR 68):
    i. Add a second westbound John left turn lane; and
    ii. Add a second northbound Abbott right turn lane.

    Abbott Street / John Street intersection would operate at LOS D (AM and PM) with improvements, which is below the Caltrans threshold of LOS C/D. However, this LOS would be acceptable based on City of Salinas standards.

    Just a single northbound right turn lane (Alternative 1) would only achieve LOS E during PM peak hour, hence a second right turn lane (Alternative 2) is necessary.
4. Intersection 4 – Spring Street / John Street (SR 68) – Modify John median to:
    a. Prevent eastbound and westbound John left turn movements;
    b. Prevent northbound Spring left turn and through movements; and
    c. Prevent southbound Spring left turn and through movements.
5. Intersection 5 – S Sanborn Road / John Street – Add a northbound S Sanborn right turn overlap signal phase
6. Intersection 6 – Abbott Street / Maple Street:
    a. Add eastbound Maple right turn lane. This improvement can be implemented by prohibiting on-street parking along approximately 75 feet of northbound Front Street near the intersection;
    b. Add a northbound Abbott left turn lane (Salinas TFO 42);
    c. Add a southbound Abbott left turn lane (Salinas TFO 42); and
    d. Signalize Intersection.

Signalization, along with the other improvements, is the preferred option for improving operations not only under the Existing Plus Project scenario but also under Cumulative Without Project conditions. The existing Abbott / John (SR 68) intersection will create some additional gaps in traffic that would accommodate some traffic to and from Maple, but not enough gaps to adequately reduce delays on its own. Eastbound and westbound left-turn prohibitions are not recommended due to a lack of desirable alternative routes for these movements. For example, northbound Abbott at John (SR 68) currently prohibits U-turns, precluding this as an alternative for existing northbound Abbott left turns at Maple.

7. Intersection 7 – Abbott Street / Spicer Street:

   No improvements required.

8. Intersection 8 – Abbott Street / Alameda Avenue:

   a. Add a northbound left turn lane (Salinas TFO 42); and

   b. Add a northbound Abbott median acceleration lane north of the intersection. This could also be in the form of a two-way left turn if preferred by the City of Salinas (Salinas TFO 42).

   c. Consider adding an eastbound Alameda right turn lane. This improvement can be implemented by prohibiting on-street parking along approximately 75 feet of both sides of Alameda Avenue near the intersection. Most on-street parking in this area is already prohibited. Although the side-street operations are still below the City of Salinas standard, the existing Abbott / Los Palos – Malarin and Abbott / John (SR 68) signals will provide breaks in traffic that will be sufficient to result in acceptable delays for eastbound Alameda left turns onto northbound Abbott Street.

9. Intersection 11 – E Blanco Road – S Sanborn Road / Abbott Street – Implement Salinas TFO 68 improvements:

   a. Add a second eastbound Abbott left turn lane;

   b. Add a second westbound Abbott left turn lane; and

   c. Convert eastbound and westbound Abbott left turn signal phasing to Protected phasing.

4.3.2 Pedestrian Circulation

There are no planned pedestrian improvements in the study area under Cumulative Without Project conditions.

4.3.3 Bicycle Circulation

The TAMC Bicycle and Pedestrian Master Plan proposes the following future bicycle improvements in the study area.

1. Bike Lane (Class II):
   a. E Blanco Road: between Abbott Street and S Davis Road (both directions)

2. Bike Route (Class III):
    a. Los Palos Drive: between Abbott Street and E Romie Lane (both directions)

4.3.4 Transit Circulation

There are no anticipated transit improvements in the study area.

5 CUMULATIVE PLUS PROJECT CONDITIONS

This section describes the analysis results under Cumulative Plus Project traffic conditions, which combines the Cumulative Without Project volumes with trips from the study Project.

5.1 Derivation of Cumulative Plus Project Condition Traffic Volumes

The Project trip assignment (**Exhibit 9**) was added to the Cumulative Without Project volumes (**Exhibit 11**) to create the Cumulative Plus Project traffic volumes depicted on **Exhibit 12.**

5.2 Cumulative Plus Project Traffic Conditions

5.2.1 Intersection Operations

Cumulative Plus Project AM and PM intersection levels of service are summarized in **Exhibit 6A**. Recommended intersection improvements are summarized in **Exhibit 6B**. The LOS calculation sheets for Cumulative Plus Project traffic conditions can be found in **Appendix H**.

Some of the study intersections currently operate at or better than their level of service standards. However, the following ten intersections currently operate below their respective standards:

1. Intersection 1 – E Market Street – Sherwood Drive / Market Way – E Market Street – LOS E (PM)
2. Intersection 2 – Front Street / E Alisal Street – LOS F (AM), LOS E (PM)
3. Intersection 3 – Abbot Street / John Street (SR 68) – LOS F (PM)
4. Intersection 4 – Spring Street / John Street (SR 68) – Side-Street LOS F (PM)
5. Intersection 5 – S Sanborn Road / John Street – LOS F (PM)
6. Intersection 6 – Abbott Street / Maple Street – Side-Street LOS F (AM, PM)
7. Intersection 7 – Abbott Street / Spicer Street – Side-Street LOS F (PM)
8. Intersection 8 – Abbott Street / Alameda Avenue – Side-Street LOS F (AM, PM)
9. Intersection 11 – E Blanco Road – S Sanborn Road / Abbott Street – LOS E (AM, PM)

Below is a discussion of the recommended improvements under Cumulative Plus Project conditions.

1. Intersection 1 – E Market Street – Sherwood Drive / Market Way – E Market Street:

   The overall level of service under Cumulative Plus Project conditions would be LOS E (PM), compared to LOS E (PM) without the Project. Per the criteria in Section 1.6, the Project would result in an adverse effect at this intersection.

   - Recommendation:
     a. Add a westbound E Market right turn overlap signal phase. This is the same recommendation as Cumulative without Project.
   - Operations after Implementation of Improvement: LOS C (AM, PM).

- Responsibility for Improvement: The Project will be responsible for a fair-share contribution towards this improvement.

2. Intersection 2 – Front Street / E Alisal Street:

   The overall level of service under Cumulative Plus Project conditions would be LOS F (AM) and LOS E (PM), compared to LOS E (PM) without the Project. Per the criteria in Section 1.6, the Project would result in an adverse effect at this intersection.

   - Recommendation:
     a. Add an eastbound E Alisal right turn overlap signal phase. This is the same recommendation as Cumulative without Project.
   - Operations after Implementation of Improvement: LOS D (AM, PM).
   - Responsibility for Improvement: The Project will be responsible for a fair-share contribution towards this improvement.

3. Intersection 3 – Abbott Street / John Street (SR 68):

   The overall level of service under Cumulative Plus Project conditions would be LOS F (AM, PM), compared to LOS F (AM, PM) without the Project. Per the criteria in Section 1.6, the Project would result in an adverse effect at this intersection.

   - Recommendation:
     i. Add second westbound John left turn lane; and
     ii. Add second northbound Abbott right turn lane.
   - Operations after Implementation of Improvement: LOS D (AM), LOS E (PM). (Although LOS with improvement is still deficient during the PM peak hour, delay is better than pre-project conditions.)
   - Responsibility for Improvement: The Project will be responsible for implementation of this improvement.
   - Just a single northbound right turn lane (Alternative 1) would only achieve LOS F with a reduced volume during PM peak hour, hence a second right turn lane (Alternative 2) is necessary.

4. Intersection 4 – Spring Street / John Street (SR 68):

   The side-street level of service under Cumulative Plus Project conditions would be LOS F (PM), compared to LOS F (PM) without the Project. The Caltrans Peak Hour signal warrant was not found to be met at this intersection – see **Appendix I** for the warrant. Per the criteria in Section 1.6, the Project would result in an adverse effect at this intersection.

   - Recommendation:
     a. Fully close John median to:

i. Prevent eastbound and westbound John left turn movement; and

ii. Prevent northbound and southbound Spring left and through movements.

- Operations after Implementation of Improvement: Side Street LOS C (AM) and LOS F (PM). Operations during PM are improved compared to without project condition. The LOS F does not account for gaps created by the Abbott /John traffic signal.
- Responsibility for Improvement: The Project will be responsible for implementation of this improvement.

5. Intersection 5 – S Sanborn Road / John Street:

   The side-street level of service under Cumulative Plus Project conditions would be LOS F (PM), compared to LOS F (PM) without the Project. Per the criteria in Section 1.6, the Project would result in an adverse effect at this intersection.

   - Recommendation:
     a. Add a northbound S Sanborn right turn overlap signal phase. This is the same recommendation as Cumulative without Project.
   - Operations after Implementation of Improvement: LOS C (AM), LOS D (PM).
   - Responsibility for Improvement: The Project will be responsible for a fair-share contribution towards this improvement.

6. Intersection 6 – Abbott Street / Maple Street:

   The side-street level of service under Cumulative Plus Project conditions would be LOS F (AM, PM), compared to LOS F (AM, PM) without the Project. The Caltrans Peak Hour signal warrant was found to be met at this intersection – see **Appendix I** for the warrant. Per the criteria in Section 1.6, the Project would result in an adverse effect at this intersection.

   - Recommendation:
     a. Add eastbound Maple right turn lane. This improvement can be implemented by prohibiting on-street parking along approximately 75 feet of Maple Street near the intersection;
     b. Add northbound Abbott left turn lane (Salinas TFO 42);
     c. Add southbound Abbott left turn lane (Salinas TFO 42);
     d. Add westbound Maple right turn lane; and
     e. Signalize Intersection.
   - Operations after Implementation of Improvement: LOS C (AM), LOS D (PM).
   - Responsibility for Improvement: The Project will be responsible for implementation of this improvement. The Project would also be eligible for a reduction in its

applicable TFO fee through implementation of recommended TFO improvements that are included in this improvement.

7. Intersection 7 – Abbott Street / Spicer Street:

   The level of service under Cumulative Plus Project conditions would be LOS F (PM), compared to LOS F (PM) without the Project. The Caltrans Peak Hour signal warrant was not found to be met at this intersection – see **Appendix I** for the warrant. Per the criteria in Section 1.6, the Project would not result in an adverse effect at this intersection. No improvement would be required at this intersection.

   The City of Salinas is considering the addition of a median closure at this intersection. This improvement will reduce side-street delays at this intersection, although it would also likely divert traffic to other intersections along Abbott Street.

8. Intersection 8 – Abbott Street / Alameda Avenue:

   The level of service under Cumulative Plus Project conditions would be LOS F (AM, PM), compared to LOS F (AM, PM) without the Project. The Caltrans Peak Hour signal warrant was found to be met at this intersection – see **Appendix I** for the warrant. Per the criteria in Section 1.6, the Project would result in an adverse effect at this intersection.

   - Recommendations, which are the same recommendations as Cumulative without Project:

     a. Add eastbound Alameda right turn lane. This improvement can be implemented by prohibiting on-street parking along approximately 75 feet of Maple Street near the intersection;

     b. Add northbound Abbott left turn lane (Salinas TFO 42); and

     c. Add a northbound Abbott median acceleration lane north of the intersection. This could also be in the form of a two-way left turn if preferred by the City of Salinas.

   - Operations after Implementation of Improvement: LOS E (AM), LOS F (PM). Although the side-street operations are still below the City of Salinas standard, the existing Abbott / Los Palos – Malarin and future Abbott / Maple signals will provide breaks in traffic that will provide additional breaks in traffic sufficient to result in acceptable delay for Alameda approach traffic to turn left onto northbound Abbott Street.

   - Responsibility for Improvement: The Project will be responsible for contributing its TFO fee which will represent its contribution towards the recommended TFO improvements.

9. Intersection 11 – E Blanco Road – S Sanborn Road / Abbott Street:

   The level of service under Cumulative Plus Project conditions would be LOS E (AM, PM), compared to LOS E (AM) and LOS D (PM) without the Project. Per the criteria in Section 1.6, the Project would result in an adverse effect at this intersection.

   - Recommendation:
     a. Implement Salinas TFO 68 improvements, which are the same recommendations as Cumulative without Project conditions:
        i. Add second eastbound Abbott left turn lane;
        ii. Add second westbound Abbott left turn lane; and
        iii. Convert eastbound and westbound Abbott left turn signal phasing to Protected phasing.
   - Operations after Implementation of Improvement: LOS D (AM, PM).
   - Responsibility for Improvement: Payment of the Project's applicable TFO fee will constitute its share of the cost to implement this improvement.

5.2.2 Pedestrian Circulation

Pedestrian activity would moderately increase under Cumulative Plus Project conditions as compared to Cumulative Without Project conditions, similar to increases between Existing and Existing Plus Project conditions. Pedestrian circulation can be accommodated with implementation of the proposed and recommended pedestrian improvements under Existing Plus Project conditions. Therefore, the Project would not represent an adverse effect to pedestrian circulation under Cumulative Plus Project conditions.

5.2.3 Bicycle Circulation

Bicycle activity is not anticipated to increase significantly under Cumulative Plus Project conditions as compared to Cumulative Without Project conditions. Therefore, the Project would not represent an adverse effect to bicycle circulation under Cumulative Plus Project conditions.

5.2.4 Transit Circulation

Transit demand from the Project is not anticipated to increase significantly under Cumulative Plus Project conditions. As such, the Project would not represent a cumulative adverse effect to transit circulation.

6 SITE ACCESS AND INTERNAL CIRCULATION

This section summarizes the site access and internal circulation analysis, including Project driveway operations. Reference **Exhibit 2A** for the Project site plan.

6.1 Vehicle Circulation

6.1.1 Vehicle Site Access

The Project driveway at Maple Street will serve as the backbone for Project access and internal circulation. All parking areas on the Project site connect to that street. The right-in/right-out driveway on John Street (SR 68) across from the existing Spring Street will serve as a secondary access to the Project site.

Exhibit 6A summarizes the operations of the Project access points with the surrounding street network. With the recommended improvements stated on **Exhibit 6B**, both access points would operate acceptably.

6.1.2 Vehicle Internal Circulation

The internal street network provides primary and secondary access to all of the Project buildings. The proposed traffic circle or mini roundabout near Buildings 3F and 4 will carry low volumes and operate with little or no delay. Care will need to be taken to provide acceptable geometrics such as corner radii to accommodate trucks. Traffic control at this and other onsite intersections, such as the location of stop signs, will be determined during final design.

Exhibit 13 depicts the volumes at Project buildout at the major internal intersections closest to the public street access points. The first is the Spring Street driveway intersection with the cross aisle about 180 feet south of John Street. This is proposed to have a raised crosswalk, raised intersection (which will result in very low approach speeds) or all-way stop control. The second is the Maple Street driveway intersection with the "Internal Private Driveway," about 350 feet east of Abbott Street.

Exhibit 14 summarizes the operations at the two on-site study intersections. **Appendix H** contains the level of service calculations. Both intersections will operate acceptably at Project buildout as proposed.

The site plan indicates that the Maple Street driveway will include three travel lanes between the "Internal Private Driveway" and Abbott Street. The middle lane can be striped as an eastbound left turn lane. The intersection will have four-way stop control, which eliminates the need to provide transitions on the east side of this intersection. The warrant criterion is based on a random arrival rate, which would result in a relatively uniform traffic flow during the peak hour. However, this first cross aisle intersection on the Maple Street extension is 350 feet away from Abbott Street. This distance will minimize any queuing effects at the internal intersection on traffic entering the site via Maple Street.

6.2 Pedestrian Circulation

Sidewalks are proposed along both sides of the Abbott Street driveway within the Project site. Sidewalks and open plazas, patios and other pedestrian-oriented open spaces are proposed

around most Project buildings. These will connect to the existing sidewalks surrounding the Project site on Abbott Street and John Street (SR 68). There will be a continuous connection between the offsite and onsite pedestrian network, enabling pedestrians to seamlessly travel to and from the Project site as well as within the Project site. The recommended traffic signal at the Abbott Street / Maple Street intersection will also facilitate easy pedestrian crossings between the Project site and the adjacent neighborhoods.

6.3 Bicycle Circulation

The Project site plan does not indicate locations of any bicycle racks or other bicycle storage facilities on the Project site, either inside or outside of any of the Project buildings. The number of required bicycle parking spaces – per City of Salinas Municipal Code Section 37-50.400 (b) – is 10% of the required automobile parking spaces, not to exceed 50 spaces. Per the Project site plan, this would be 50 bicycle spaces.

7 VEHICLE MILES TRAVELED ANALYSIS

7.1 City of Salinas VMT Policy

SB 743, which was signed into law in 2013 and codified in Public Resources Code 21099, tasked the State Office of Planning and Research (OPR) with establishing new criteria for determining the significance of transportation impacts under CEQA. SB 743 requires the new criteria to "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." SB 743 changes the way that public agencies evaluate the transportation impacts of projects under CEQA, recognizing that roadway congestion, while an inconvenience to drivers, is not itself an environmental impact (see Pub. Resource Code, § 21099, subdivision (b)(2)).

In addition to new exemptions for projects that are consistent with specific plans, SB 743 led to changes in that state CEQA guidelines, released in December 2018 and described in new Section 15064.3 of the CEQA Guidelines that apply statewide as of July 1, 2020. The new CEQA guidelines replaces congestion-based metrics, such as auto delay and level of service, with Vehicle Miles Traveled (VMT) as the basis for determining significant impacts, unless the guidelines provide specific exceptions.

7.2 City of Salinas VMT Policy

The Project is now required to perform a VMT evaluation, but no longer required to perform a LOS analysis under CEQA. However, the City of Salinas, like most other local agencies, continues to require LOS analyses to determine consistency with General Plan policies for infrastructure planning purposes. The LOS analysis no longer falls under the guidelines and policies of CEQA.

The City of Salinas adopted "Senate Bill 743 Vehicle Miles Traveled Implementation Policy – City of Salinas – Final Interim Policy," October 13, 2020 (Salinas VMT Guidelines) as its current tool to implement SB 743. The Salinas VMT Guidelines requires the following elements in a Project VMT analysis.

1. Two distinct analysis approaches, those that relate to land use projects (Salinas VMT Guidelines Section 3.0) and those that relate to transportation improvement projects (Salinas VMT Guidelines Section 4.0). If a project includes both land use and transportation improvement elements, analyses are to be carried out for both.

2. Mixed Use Projects – If there are multiple distinct land uses within the project (residential, office, retail, etc.), they are required to be analyzed separately unless they are determined to be insignificant to the total VMT. Mixed use projects are permitted to account for internal capture which, depending on the methodology, may require a distinct approach not covered in the Salinas VMT Guidelines. This analysis would be the responsibility of the applicant and must be prepared by a qualified transportation professional and approved by the City of Salinas.

3. Redevelopment Projects – As described under the Non-Significant Screening Criteria section, redevelopment projects which have lower VMT than the existing on-site use can be

determined to have a non-significant impact. In other words, VMT generated by the existing land uses at the site can be deducted to determine the net increase in VMT that will result from the proposed project.

7.3 Project VMT Analysis

The John/Abbott Master Plan is a mixed-use project that requires a VMT analysis for each land use within the Project. It also will be responsible for constructing off-site improvements which also require a VMT analysis in accordance with City of Salinas VMT Policy as discussed above. These analyses are described below.

7.3.1 Project Land Use VMT Analysis

Exhibit 1 tabulates the VMT analysis criteria for each Project land use type, including the screening criteria and screening threshold, compared with the corresponding Project land use characteristic. This comparison is used as a basis for determining whether the Project has a significant VMT impact. If the specific land use has a significant impact, mitigation is recommended.

The Project retail and medical office buildings are all under the city's 50,000 square-foot threshold. The Project's Medical Office, Restaurants and Retail buildings are all well under 50,000 square feet in size. They are considered by the City to be local serving and will not generate a significant VMT impact. The Project's General Office buildings all will generate below the threshold of 110 daily trips and will therefore have a less-than-significant VMT impact. The Project is located in an area indicated on the "Residential VMT per Capita Map" on page 24 of the Salinas VMT Guidelines to have residential VMT per capita that is at or below the County Threshold. The Project's Residential components will therefore have a less-than-significant VMT impact.

The Project Hotel is a land use that does not have a specific land use designation in the Salinas VMT Guidelines. The Project Hotel will not have conference facilities other than small meeting rooms and will only provide meals to guests. It is most similar to All Suites Hotels (ITE Land Use Category 311) and Business Hotels (ITE Land Use Category 312) as described "Trip Generation Manual," Institute of Transportation Engineers, 10th Edition, September 2017 (ITE Trip Manual). Trips generated by the Hotel would fall into the following four categories.

1. Guest arrivals and departures – These include hotel guests arriving from or departing to their points of origin, which could involve long road trips or travel to and from nearby airports. Their trip purpose could be business or personal. Some guests could stay as they pass through Salinas on the way to a primary destination.
2. Hotel-based trips during the stay at the hotel – These could be for business meetings or for day trips to attractions in the greater Salinas area.
3. Deliveries – The proposed hotel will have minimal meal service and only incidental deliveries associated with hotel room service will have limited delivery and service vehicle traffic.
4. Employee trips – These would include travel to and from work and occasional personal business or meals similar to blue collar employees at any other business.

Trips associated with hotel guests are rarely new trips on the local street network. This is because hotels are not a destination in themselves but provide lodging while in the hotel vicinity for some primary reason such as business meetings, tourism, visiting family or friends or passing through Salinas. The hotel could reduce VMT associated with hotel guests by providing a more convenient place of lodging to their destination. Employee and delivery trips are the only hotel trip purpose with typical VMT trip lengths and the only trip purpose that is new trips on the network. Based on ratios derived from the ITE Trip Manual, business hotels have an average of about one employee for every eight hotel rooms. The Project Hotel is proposed to have a total of 111 rooms, which computes to about 14 employees. To be conservative, it is assumed that the Project Hotel will have about 20 employees. The average trip generation per employee at employment centers for all traffic including employee trips as well as deliveries and visitors is estimated to be about 3.5 trip ends per day for a total of about 70 daily employee trips. This is well below the 110 trip-per-day threshold of significance. The Project Hotel therefore will likely result in net trip generation that is less than significant.

In summary, all of the Project land uses will have an insignificant VMT impact. No further VMT analysis is required.

Although the Project will have an insignificant VMT impact, the project will implement 19 Transportation Demand Management (TDM) strategies listed in the Salinas VMT Guidelines. These improvements are listed on **Exhibit 1.**

7.3.2 Project Off-Site Transportation Improvements VMT Analysis

The Project will implement or contribute financially toward off-site traffic operations improvements at the following locations.

1. Intersection 1 – E Market Street – Sherwood Drive / Market Way – E Market Street (City of Salinas)
2. Intersection 2 – Front Street / E Alisal Street (City of Salinas)
3. Intersection 3 – Abbott Street / John Street (SR 68) (Caltrans)
4. Intersection 4 – Spring Street / John Street (SR 68) (Caltrans)
5. Intersection 5 – S Sanborn Road / John Street (City of Salinas)
6. Intersection 6 – Abbott Street / Maple Street (City of Salinas)
7. Intersection 7 – Abbott Street / Spicer Street (City of Salinas)
8. Intersection 8 – Abbott Street / Alameda Avenue (City of Salinas)
9. Intersection 11 – E Blanco Road – S Sanborn Road / Abbott Street (City of Salinas)

The Salinas VMT Guidelines require that these be screened regarding whether they could result VMT impacts by altering trip patterns, trip lengths, or trip generation, which is commonly referred to as “induced demand.” The above improvements include adding turn lanes, modifying traffic signal phasing, and installing new traffic signals. According to the Salinas VMT Guidelines, page

12, all of these are presumed to result in a non-significant impact. No further study is necessary of transportation improvements that will be required to be implemented by the Project.

8 SUMMARY OF RECOMMENDED IMPROVEMENTS

8.1 Project Responsibilities

The following is a summary of the Project responsibilities regarding traffic issues, impacts and adverse effects, based upon the recommendations discussed earlier in this report.

1. Pay the TAMC Regional Development Impact Fee (RDIF) and the City of Salinas Traffic Fee Ordinance (TFO) fee. City of Salinas staff will quantify the applicable fees to the Project at the time of development. The Project would be eligible for reductions to its applicable TFO fee through implementation of or fair-share contributions towards TFO improvements to address the project's contributions to cumulative adverse effects throughout the study street network, as described in many of the recommended improvements below.
2. The Project would be responsible for implementation of the following improvements:
    a. Intersection 3 – Abbott Street / John Street (SR 68): This would be required to be implemented prior to constructing the fourth phase of the Project.
        i. Add second westbound John left turn lane; and
        ii. Add a second northbound Abbott right turn lane.
    b. Intersection 4 – Spring Street / John Street (SR 68): This would be required to be implemented prior to constructing the fourth phase of the Project.
        i. Fully close the John Street median opening to:
            1. Prevent the eastbound and westbound John left turn movements; and
            2. Prevent southbound and northbound Spring left and through movements.
    c. Intersection 6 – Abbott Street / Maple Street: This will be required to be implemented with the first phase of the Project.
        i. Add an eastbound Maple right turn lane. This improvement can be implemented by prohibiting on-street parking along approximately 75 feet of Maple Street near the intersection.
        ii. Add a northbound Abbott left turn lane (Salinas TFO 42);
        iii. Add a southbound Abbott left turn lane (Salinas TFO 42);
        iv. Add a westbound Maple right turn lane; and
        v. Signalize Intersection.
3. The Project would be responsible for fair-share contributions towards the following improvements:
    a. Intersection 1 – E Market Street – Sherwood Drive / Market Way – E Market Street:
        i. Add a westbound E Market right turn overlap signal phase.

b. Intersection 2 – Front Street / E Alisal Street:

   i. Add an eastbound E Alisal right turn overlap signal phase.

c. Intersection 5 – South Sanborn Road / John Street:

   i. Add a northbound South Sanborn right turn overlap signal phase.

intersection.

4. The Project's payment of the City of Salinas TFO would constitute its contribution towards the cost of the recommended improvements at the following intersections:

   a. Intersection 8 – Abbott Street / Alameda Avenue: Add northbound and southbound Abbott left turn lanes or two-way left turn lane (Salinas TFO 42) and associated parking prohibitions on Alameda Avenue;

   b. Intersection 11 – E Blanco Road – S Sanborn Road / Abbott Street (Salinas TFO 68).

5. The Project should include the following on-site improvements as discussed in the "Project Access and Internal Circulation" section of this report.

9 REFERENCES

9.1 List of References

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2. *2000 Highway Capacity Manual,* Transportation Research Board, 2000.
3. *City of Salinas General Plan,* Cotton/Bridges/Associates, September 2002.
4. *Guide for the Preparation of Traffic Impact Studies, California Department of Transportation (Caltrans), December 2002.*
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8. *Transportation Agency for Monterey County Bicycle and Pedestrian Master Plan,* Alta Planning + Design, December 2011.
9. Monterey-Salinas Transit web site, http://www.mst.org. Accessed December 19, 2019.
10. *Trip Generation Manual,* 10th Edition, Institute of Transportation Engineers, 2017.
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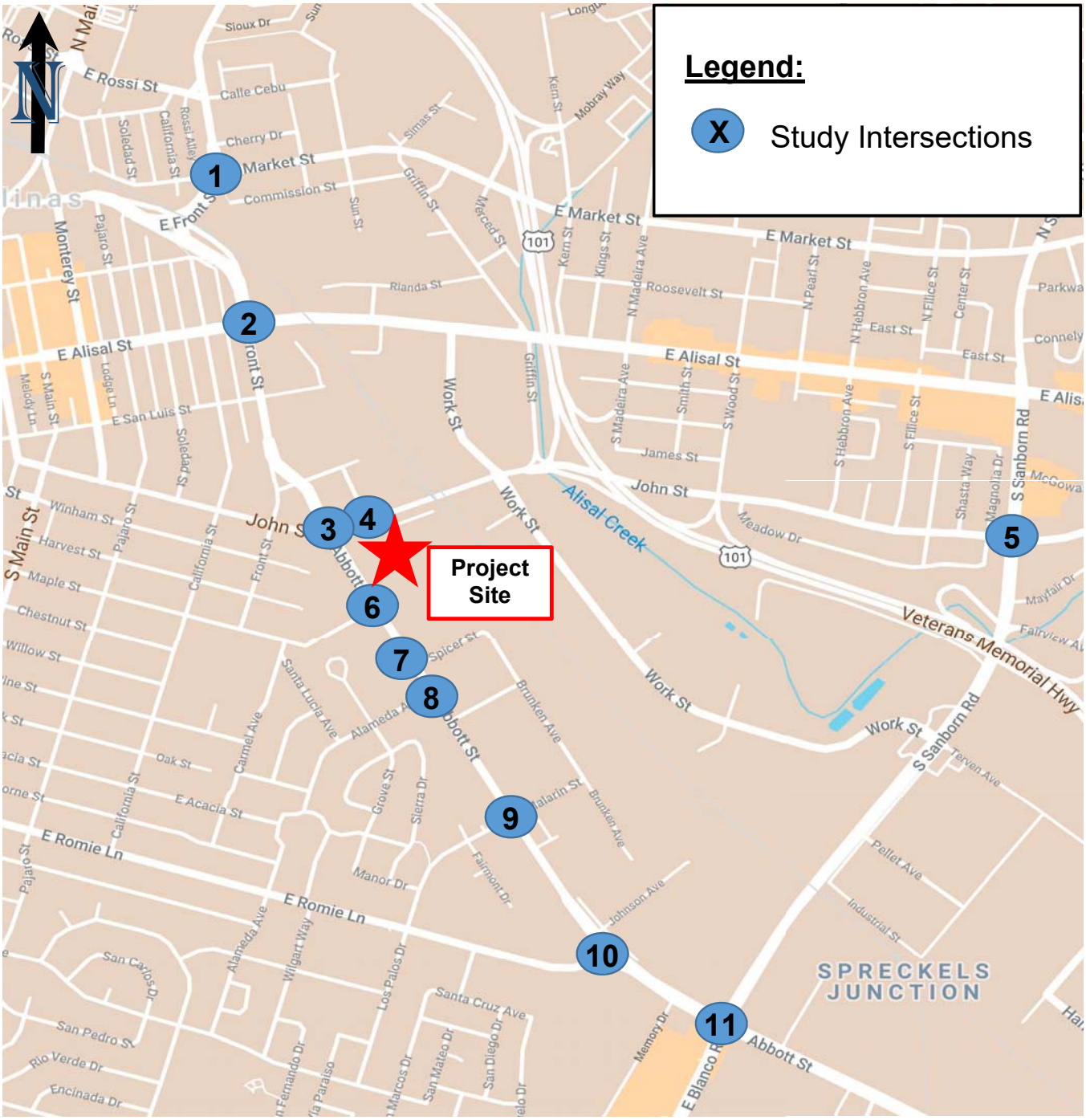
14. *Salinas Ag-Industrial Center Traffic Impact Analysis,* Higgins Associates, September 2, 2008
15. *City of Salinas General Plan Circulation Element and Environmental Impact Report Traffic Study,* Higgins Associates, June 11, 2002.
16. *California Manual on Uniform Traffic Control Devices,* California Department of Transportation (Caltrans), April 2017.
17. *Technical Advisory on Evaluating Transportation Impacts in CEQA,* State of California Governor's Office of Planning and Research, December 2018
18. *Senate Bill 742 Vehicle Miles Traveled Implementation Policy,* Final Interim Policy, City of Salinas, October 13, 2020.

9.2 List of Contacts

1. Carl Sanders, Videre Development, LLC, Salem, Oregon.
2. Greg Allen, Cadius Partners, Bozeman, Montana.
3. Steve Rigor, Arris Studio Architects, San Luis Obispo, California.
4. Chris Stout, L&S Engineering and Surveying, Monterey, California.
5. Jeff Lorentz, L&S Engineering and Surveying, Monterey, California.
6. Andrew Easterling, City of Salinas Public Works Department, Salinas, California.
7. John Olejnik, Senior Transportation Planner, Caltrans District 5, San Luis Obispo, California.
8. Chris Bjornstad, Associate Transportation Planner, Caltrans District 5, San Luis Obispo, California.
9. Roger Barnes, Senior Transportation Engineer, Traffic Operations Branch Chief, Caltrans District 5, San Luis Obispo, California.
10. Bhupendra Patel, Ph.D., Director of Modeling, Association of Monterey Bay Area Governments (AMBAG), Marina, California.



Basemap Source: Google Maps, 2019.

Keith Higgins
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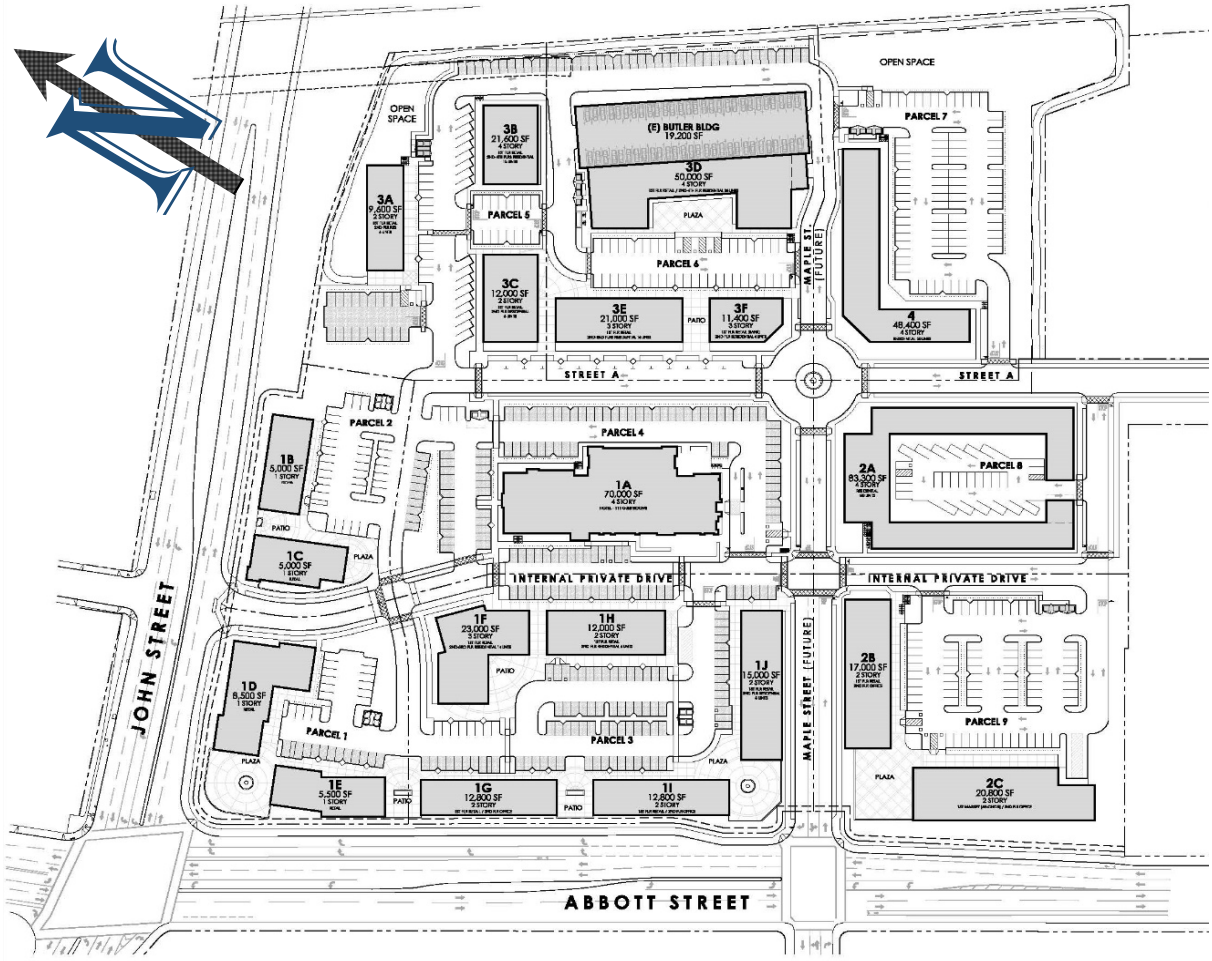
Exhibit 1
Project Location Map and Study Area



Source: Arris Studio Architects, February 2022.

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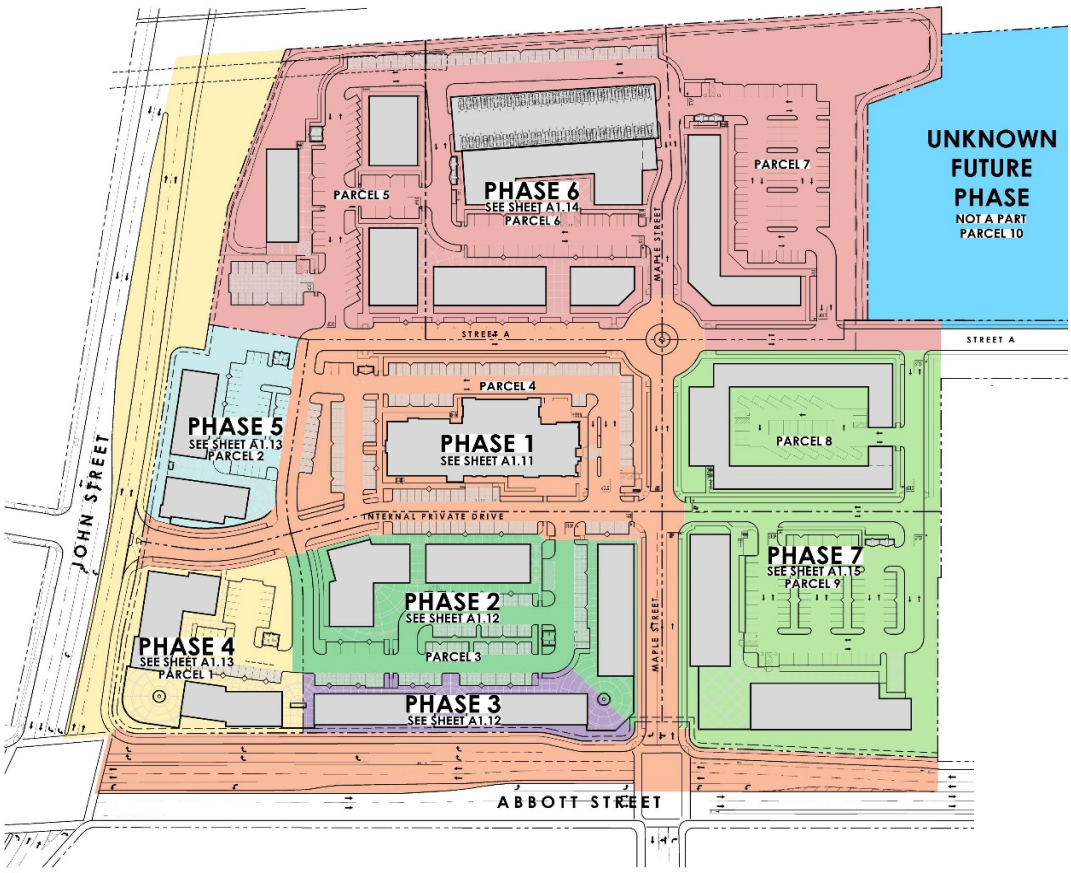
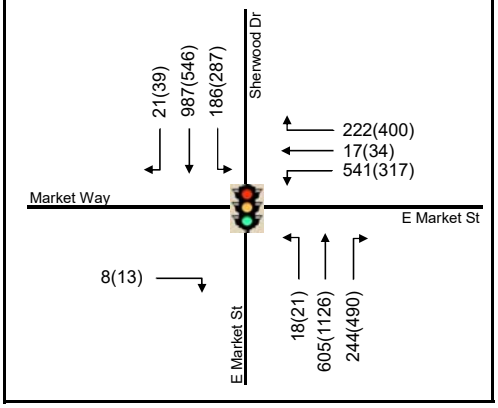
Exhibit 2A
Project Site Plan
(Layout)

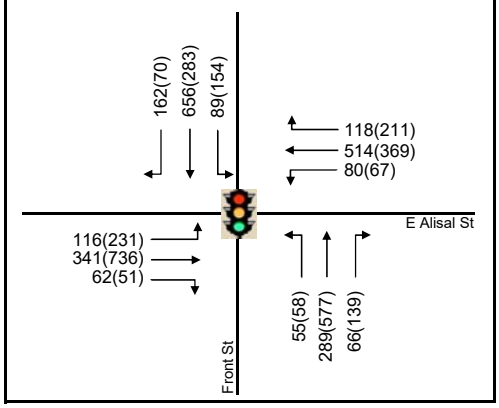


Source: Arris Studio Architects, February 2022.

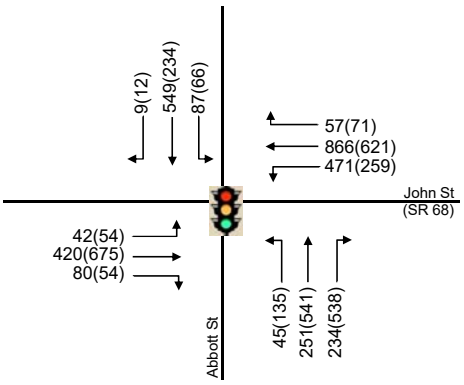
1. E Market Street - Sherwood Drive / Market Way - E Market Street



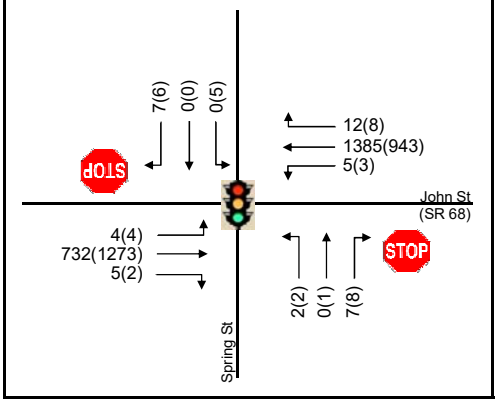
2. Front Street / E Alisal Street



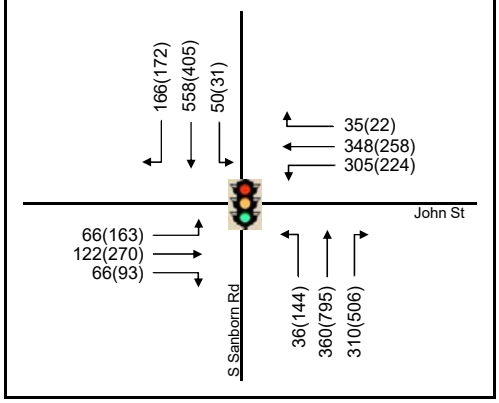
3. Abbott Street / John Street (SR 68)



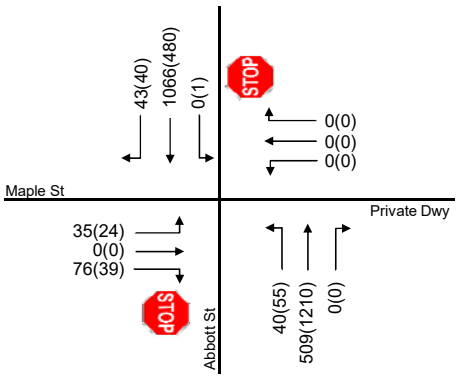
4. Spring Street / John Street (SR 68)



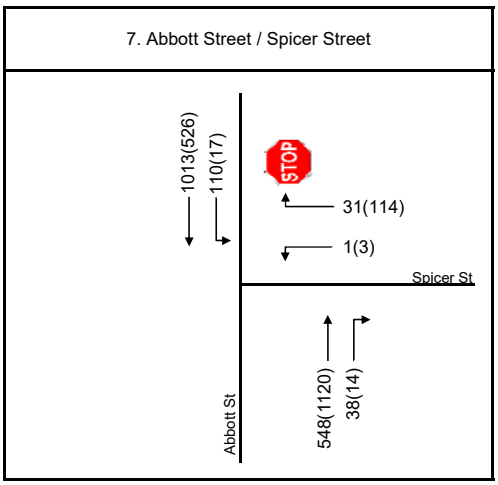
5. S Sanborn Road / John Street



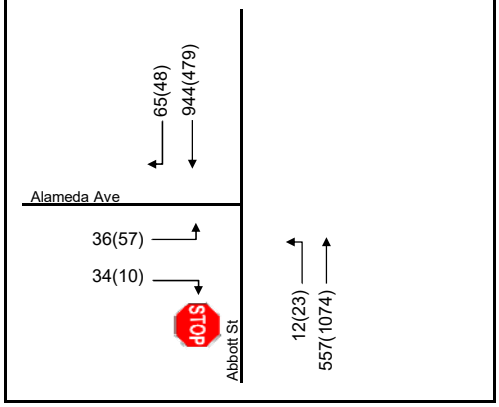
6. Abbott Street / Maple Street



7. Abbott Street / Spicer Street



8. Abbott Street / Alameda Avenue



9. Abbott Street / Los Palos Drive - Malarin Street

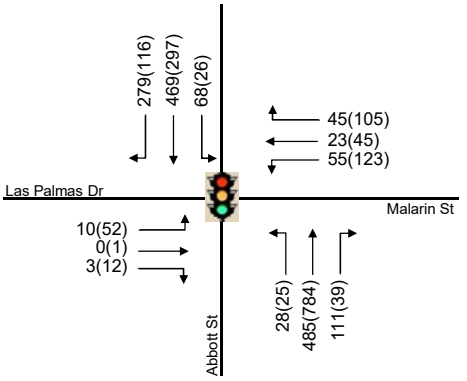


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Exhibit 3
Existing Conditions (Off Season)
AM & PM Peak Hour Volumes
(Page 1 of 2)

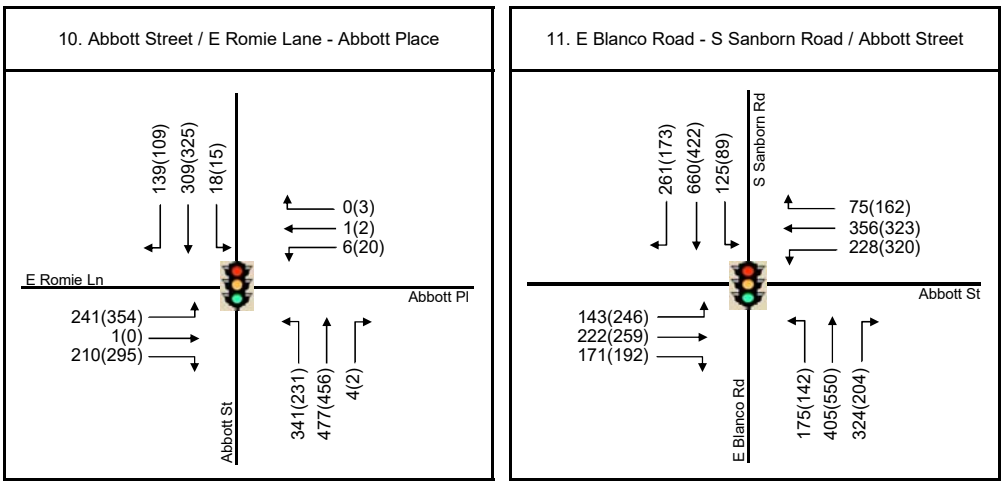

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Exhibit 3
Existing Conditions (Off Season)
AM & PM Peak Hour Volumes
(Page 2 of 2)

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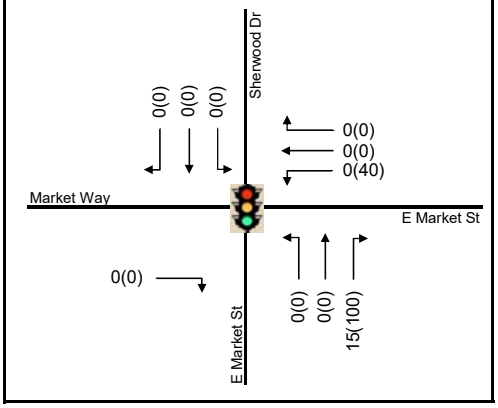
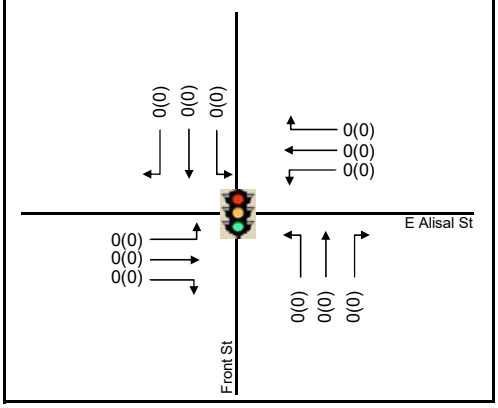
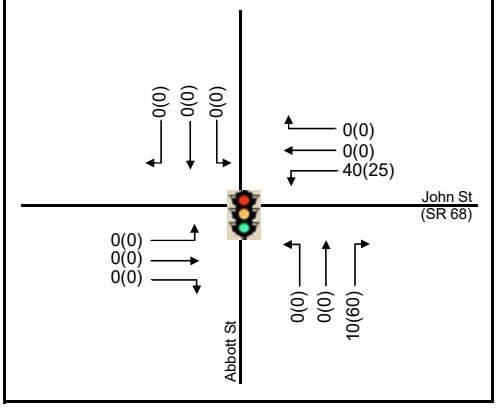


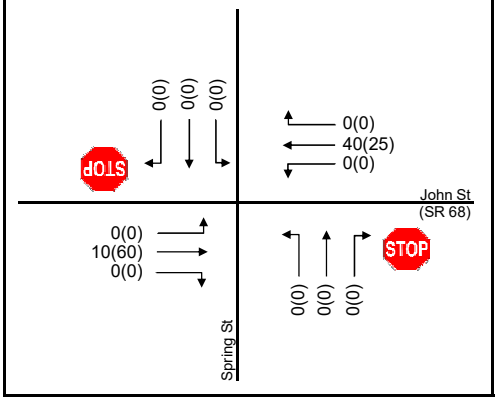
2. Front Street / E Alisal Street



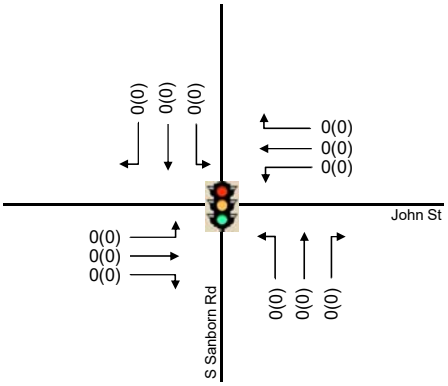
3. Abbott Street / John Street (SR 68)



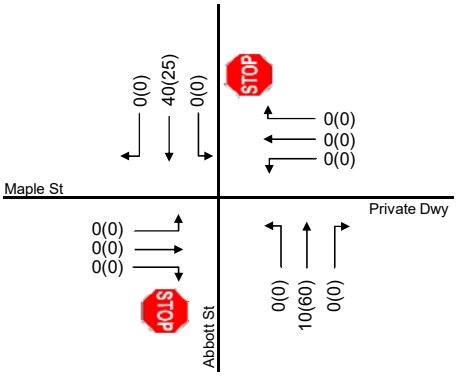
4. Spring Street / John Street (SR 68)



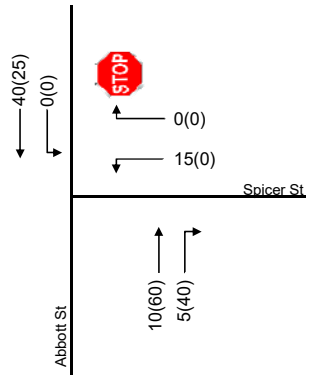
5. S Sanborn Road / John Street



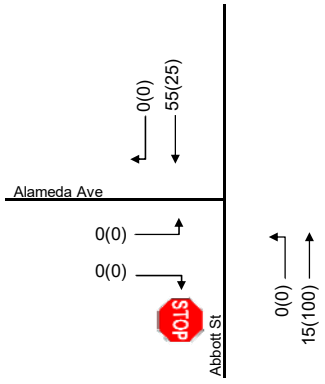
6. Abbott Street / Maple Street



7. Abbott Street / Spicer Street



8. Abbott Street / Alameda Avenue



9. Abbott Street / Los Palos Drive - Malarin Street

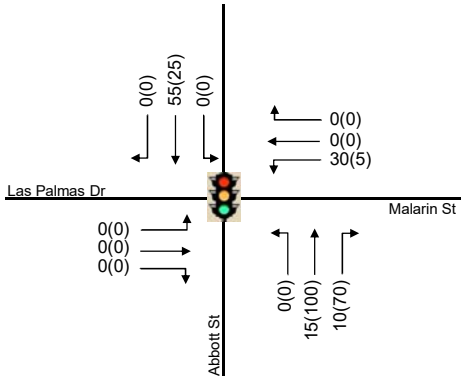


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Exhibit 4
Seasonal Adjustments
AM & PM Peak Hour Volumes
(Page 1 of 2)

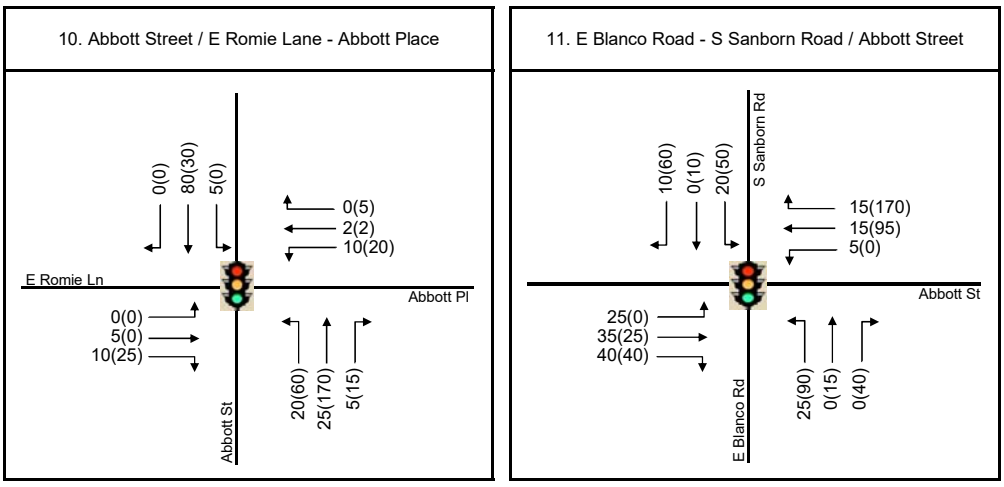

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Exhibit 4
Seasonal Adjustments
AM & PM Peak Hour Volumes
(Page 2 of 2)

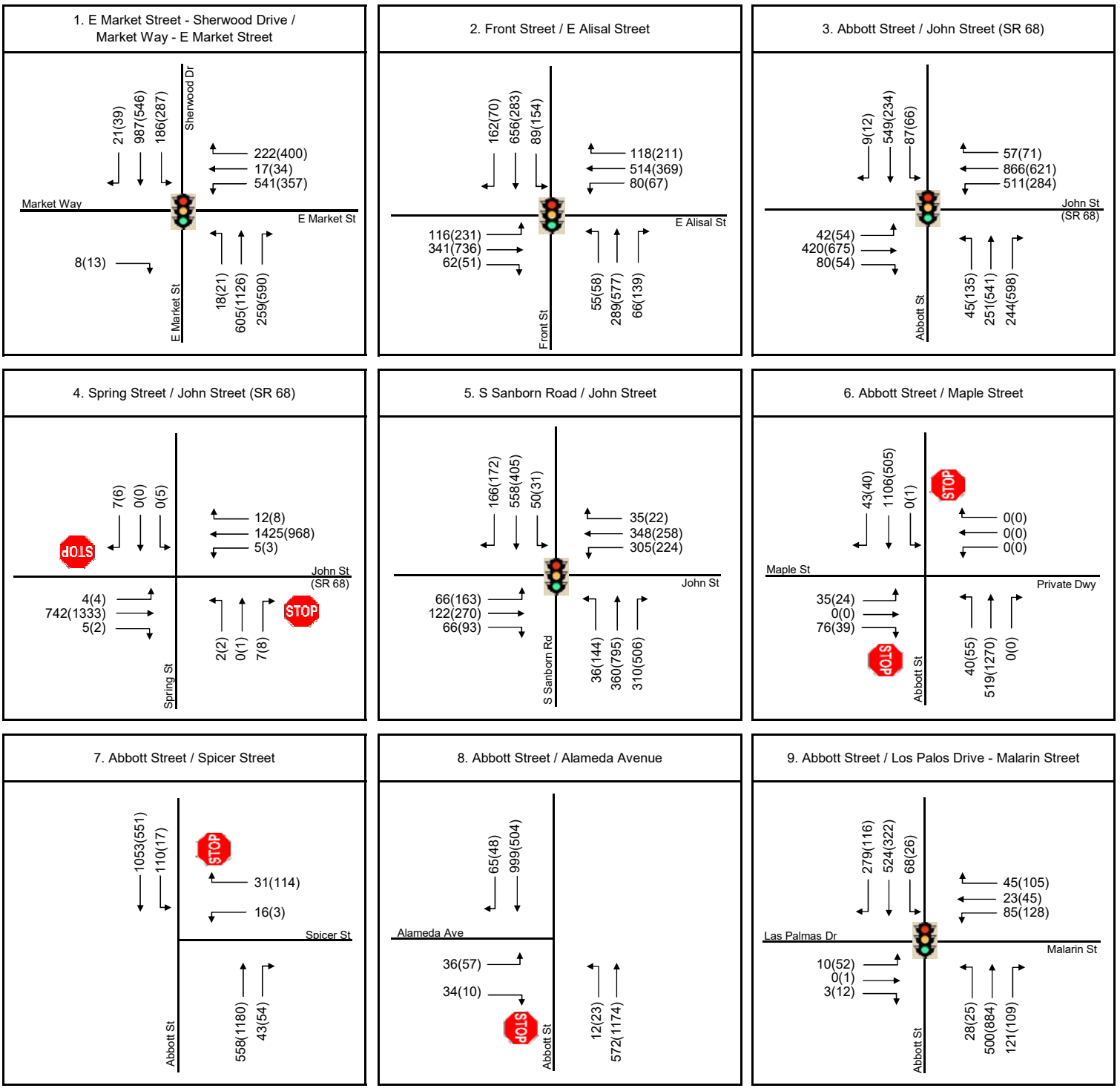

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Exhibit 5
Existing Peak Season Conditions
AM & PM Peak Hour Volumes
(Page 1 of 2)

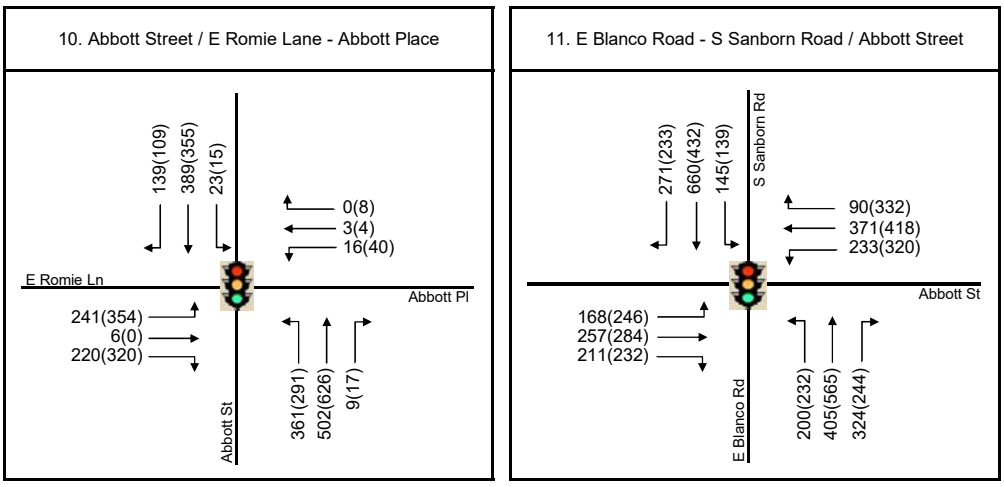

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Exhibit 5
Existing Peak Season Conditions
AM & PM Peak Hour Volumes
(Page 2 of 2)

	N-S Street	E-W Street	Jurisdiction	Existing Lane Configuration	Existing Intersection Control	LOS Standard	Peak Hour	Existing Conditions (Peak Season) Delay	Existing Conditions (Peak Season) LOS	Existing Plus Project Conditions Delay	Existing Plus Project Conditions LOS	Cumulative Without Project Conditions Delay	Cumulative Without Project Conditions LOS	Cumulative Plus Project Conditions Delay	Cumulative Plus Project Conditions LOS
1	E Market Street - Sherwood Drive	Market Way - E Market Street	City of Salinas	NB 1-L, 2-T, 2-R SB 1-L, 1-T, 1-T/R EB 1-R WB 1-L, 1-L/T, 1-R	Signal	D	AM	21.7	C	22.2	C	35.4	D	50.4	D
							PM	20.3	C	21.2	C	69.7	E	78.6	E
					With Improvement		*AM*					*29.7*	*C*	*31.7*	*C*
							PM					*31.6*	*C*	*34.8*	*C*
2	Front Street	E Alisal Street	City of Salinas	NB 1-L, 2-T, 1-R SB 1-L, 2-T, 1-R EB 1-L, 2-T, 1-R WB 1-L, 1-T, 1-T/R	Signal	D	AM	26.2	C	28.9	C	39.5	D	113.1	F
							PM	29.5	C	33.5	C	59.2	E	75.4	E
					With Improvement		*AM*					*33.9*	*C*	*37.6*	*D*
							PM					*43.3*	*D*	*49.3*	*D*
3	Abbott Street	John Street (SR 68)	Caltrans	NB 1-L, 2-T, 1-R SB 1-L, 2-T, 1-R EB 1-L, 2-T, 1-R WB	Signal	C-D	AM	36.4	D	55.1	E	87.1	F	105.8	F
							PM	61.7	E	75.5	E	98.4	F	138.4	F
					With Improvement (Alternative 1)			*27.5*	*C*	*37.6*	*D*	*37.0*	*D*	*53.6*	*D*
								30.1	*C*	*55.9*	*E*	*44.3*	*D*	*89.6*	*F*
					With Improvement (Alternative 2)		*AM*			*37.4*	*D*			*52.5*	*D*
							PM			*42.8*	*D*			*73.1*	*E*
4	Spring Street	John Street (SR 68)	Caltrans	NB 1-L/T/R SB 1-L/T/R EB 1-L/T, 1-T/R WB 1-L, 1-T, 1-T/R	Two-Way Stop	C-D/C-D	AM	34.3/16.6	D/C	19.2/18.5	C/C	43.7/17.8	E/F	16.1/19.9	C/C
							PM	76.6/54.1	F/F	129.4/*	F/F	141.6/99.9	F/F	*/*	F/F
					With Improvement		*AM*	*12.8/16.6*	*B/C*	*19.3/18.5*	*C/C*	*13.4/17.8*	*B/C*	*16.5/19.9*	*C/C*
							PM	*17.6/12.7*	*C/B*	*63.1/14.5*	*F/B*	*19.8/13.8*	*C/B*	*110.9/16.0*	*F/C*
5	S Sanborn Road	John Street	City of Salinas	NB 1-L, 2-T, 1-R SB 1-L, 2-T, 1-R EB 1-L, 1-T, 1-T/R WB 1-L, 2-T, 1-R	Signal	D	AM	22.8	C	23.1	C	32.0	C	48.0	D
							PM	32.0	C	33.0	C	85.8	F	89.9	F
					With Improvement		*AM*					*32.0*	*C*	*33.3*	*C*
							PM					*34.0*	*C*	*40.3*	*D*
6	Abbott Street	Maple Street	City of Salinas	NB 1-L/T, 1-T/R SB 1-L/T, 1-T/R EB 1-L/T/R WB 1-L/T/R	Two-Way Stop	D/D	AM	85.3/0.0	F/A	*/*	F/F	1060.8/0.0	F/A	*/*	F/F
							PM	40.3/0.0	E/A	11.2/*	B/F	*/0.0	F/A	*/*	F/F
					With Improvement		*AM*	*47.5/0.0*	*E/A*	*17.4*	*B*	*8.5*	*A*	*25.6*	*C*
							PM	*29.2/0.0*	*D/A*	*47.3*	*D*	*7.0*	*A*	*47.3*	*D*
7	Abbott Street	Spicer Street	City of Salinas	NB 1-T, 1-T/R SB 1-L/T, 1-T WB 1-L/R	One-Way Stop	D	AM	31.3	D	43.2	D	12.3	B	12.8	B
							PM	20.2	C	23.4	C	187.4	F	413.7	F
8	Abbott Street	Alameda Avenue	City of Salinas	NB 1-L/T, 1-T SB 1-T, 1-T/R EB 1-L/R	One-Way Stop	D	AM	37.5	E	50.5	F	282.6	F	434.6	F
							PM	44.9	E	86.9	F	1,955.9	F	*	F
					With Improvement		*AM*					*37.1*	*E*	*44.2*	*E*
							PM					*65.9*	*F*	*99.9*	*F*
9	Abbott Street	Los Palos Drive - Malarin Street	City of Salinas	NB 1-L, 1-T, 1-T/R SB 1-L, 1-T, 1-T/R EB 1-L/T/R WB 1-L/T, 1-R	Signal	D	AM	5.6	A	5.7	A	6.4	A	6.6	A
							PM	8.9	A	9.1	A	10.4	B	10.9	B
10	Abbott Street	E Romie Lane - Abbott Place	City of Salinas	NB 1-L, 2-T, 1-R SB 1-L, 2-T, 1-R EB 1-L, 1-L/T, 1-R WB 1-L/T/R	Signal	D	AM	22.5	C	25.4	C	41.4	D	41.4	D
							PM	26.7	C	26.6	C	31.4	C	31.7	C
11	E Blanco Road - S Sanborn Road	Abbott Street	City of Salinas	NB 1-L, 2-T, 1-R SB 1-L, 2-T, 1-R EB 1-L, 1-L/T, 1-T, 1-R WB 1-L, 1-L/T, 1-T, 1-R	Signal	D	AM	35.6	D	36.9	D	76.2	E	78.0	E
							PM	35.3	D	37.0	D	50.5	D	56.5	E
					With Improvement		*AM*					*41.2*	*D*	*43.4*	*D*
							PM					*39.0*	*D*	*42.4*	*D*

Notes:

1. L, T, R = Left, Through, Right.
2. NB, SB, EB, WB = Left, Through, Right, Northbound, Southbound, Eastbound, Westbound.
3. * = Delay exceeds 3000 seconds
4. Overall Caltrans level of service standard is the transition between LOS C and LOS D, abbreviated as "LOS C-D". Caltrans side-street standard assumed as LOS C-D. City of Salinas overall and side-streeet level of service standards are LOS D.
5. For signalized and all-way stop intersection analysis, delay is average overall delay in seconds per vehicle (sec/veh). For one- and two-way stop intersections, delays are side-street approach operations, also in seconds per vehicle (sec/veh).
6. Alternatives 1 and 2 refer to different improvement alternatives for the same intersection. See **Exhibit 6B** for details.
7. N/A = Not Applicable. Intersection does not existi under this scenario.
8. Analysis performed using 2010 and 2000 Highway Capacity Manual methodologies.
9. Level of service calculations can be found in **Appendices E - H.**
10. LOS highlighted in **red** indicates intersection operating below level of service standard.
11. LOS with a thick black border represents a significant impact. Resulting levels of service with recommended improvements noted under "With Improvements". A list of applied improvements can be found on **Exhibit 6B**.

Keith Higgins
Traffic Engineer

Exhibit 6A
Intersection
Levels of Service

	N-S Street	E-W Street	Jurisdiction	Existing Conditions (Peak Season)	Existing Plus Project Conditions	Cumulative Without Project Conditions	Cumulative Plus Project Conditions
1	E Market Street - Sherwood Drive	Market Way - E Market Street	City of Salinas	None Required	None Required	Add WB RTO Signal Phase	Add WB RTO Signal Phase
2	Front Street	E Alisal Street	City of Salinas	None Required	None Required	Add EB RTO Signal Phase	Add EB RTO Signal Phase
3	Abbott Street	John Street (SR 68)	Caltrans	a. Add 2nd WB L	Alternative 1: Same as Existing Plus Project Alternative 2: Same as Existing Plus Project PLUS c. Add 2nd NB R	a. Add 2nd WB L	Alternative 1: Same as Existing Plus Project Alternative 2: Same as Existing Plus Project PLUS c. Add 2nd NB R
4	Spring Street	John Street (SR 68)	Caltrans	Modify John Median to: a. Prevent EB L, WB L b. Prevent NB L, NB T c. Prevent SB L, SB T	Modify John Median to: a. Prevent EB L, WB L b. Prevent NB L, NB T c. Prevent SB L, SB T	Modify John Median to: a. Prevent EB L, WB L b. Prevent NB L, NB T c. Prevent SB L, SB T	Modify John Median to: a. Prevent EB L, WB L b. Prevent SB L, SB T c. Prevent NB L, NB T
5	S Sanborn Road	John Street	City of Salinas	None Required	None Required	Add NB RTO Signal Phase	Add NB RTO Signal Phase
6	Abbott Street	Maple Street	City of Salinas	a. Add EB R b. Add NB L (TFO 42) c. Add SB L (TFO 42)	a. Add EB R b. Add NB L (TFO 42) c. Add SB L (TFO 42) d. Add WB R e. Signalize Intersection f. Add WB RTO Signal Phase	a. Add EB R b. Add NB L (TFO 42) c. Add SB L (TFO 42) d. Signalize Intersection	a. Add EB R b. Add NB L (TFO 42) c. Add SB L (TFO 42) d. Add WB R e. Signalize Intersection f. Add WB RTO Signal Phase
7	Abbott Street	Spicer Street	City of Salinas	None Required	None Required	None Required	None Required
8	Abbott Street	Alameda Avenue	City of Salinas	None Required	a. Add EB R b. Add Median Acceleration Lane or Two-Way Left Turn Lane	None Required	a. Add EB R b. Add Median Acceleration Lane or Two-Way Left Turn Lane
9	Abbott Street	Los Palos Drive - Malarin Street	City of Salinas	None Required	None Required	None Required	None Required
10	Abbott Street	E Romie Lane - Abbott Place	City of Salinas	None Required	None Required	None Required	None Required
11	E Blanco Road - S Sanborn Road	Abbott Street	City of Salinas	None Required	None Required	Implement Salinas TFO 68: a. Add 2nd EB L b. Add 2nd WB L c. Convert Abbott Left Turn Signal Phasing to Protected	Implement Salinas TFO 68: a. Add 2nd EB L b. Add 2nd WB L c. Convert Abbott Left Turn Signal Phasing to Protected

Notes:

1. L, T, R = Left, Through, Right.
2. NB, SB, EB, WB, RTO, TWLTL = Left, Through, Right, Northbound, Southbound, Eastbound, Westbound Right Turn Overlap, Two-Way Left Turn Lane.
3. N/A = Not Applicable. Intersection does not exist under this scenario.
4. "TFO xx" refers to City of Salinas Traffic Fee Ordinance project.

Keith Higgins
Traffic Engineer

Exhibit 6B
Recommended
Intersection Improvements

TRIP GENERATION RATES	ITE LAND USE CODE	DAILY TRIP RATE	AM PEAK HOUR PEAK HOUR RATE	AM PEAK HOUR % OF ADT	AM PEAK HOUR % IN	AM PEAK HOUR % OUT	PM PEAK HOUR PEAK HOUR RATE	PM PEAK HOUR % OF ADT	PM PEAK HOUR % IN	PM PEAK HOUR % OUT
All Suites Hotel (per occupied room)	311	6.24	0.48	8%	0.67	0.33	0.52	8%	0.43	0.57
Variety Store (per 1,000 sq. ft.)	814	63.47	3.18	5%	0.57	0.43	6.84	11%	0.52	0.48
General Office (per 1,000 sq. ft.)	710	9.74	1.16	12%	0.86	0.14	1.15	12%	0.16	0.84
Medical - Dental Office (per 1,000 sq. ft.)	720	34.80	2.78	8%	0.78	0.22	3.46	10%	0.28	0.72
Fast Casual Restaurant (per 1,000 sq. ft.)	930	315.17	22.06	7%	0.67	0.33	25.21	8%	0.55	0.45
Quality Restaurant (per 1,000 sq. ft.)	931	83.84	0.73	1%	0.60	0.40	7.80	9%	0.50	0.50
Fast Food Restaurant without Drive-Through (per 1,000 sq. ft.)	933	346.23	25.10	7%	0.60	0.40	28.34	8%	0.50	0.50
Supermarket (per 1,000 sq. ft.)	850	106.78	3.82	4%	0.60	0.40	9.24	9%	0.51	0.49
Walk-in Bank (per 1,000 sq. ft.)[4]	911	100.03	12.13	12%	0.44	0.56	26.40	26%	0.51	0.49
Multi-Family Residential (per dwelling unit)	220	7.32	0.46	6%	0.23	0.77	0.56	8%	0.63	0.37

Project Incremental Trip Generation by Phases									
Phase 1 - Gross & Net Trips	693	53	8%	36	17	58	8%	25	33
Phases 1 and 2 - Gross Trips	2,256	134	6%	77	57	219	10%	109	110
Net Trips (5% Internal)	2,143	127	6%	73	54	208	10%	103	104
Phases 1 through 3 - Gross Trips	4,260	256	6%	154	102	403	9%	196	207
Net Trips (10% Internal)	3,834	230	6%	139	92	362	9%	176	186
Phases 1 through 4 - Gross Trips	6,407	388	6%	233	155	592	9%	292	300
Net Trips (10% Internal)	5,766	349	6%	210	140	533	9%	262	270
Phases 1 through 5 - Gross Trips	7,903	476	6%	285	191	726	9%	359	366
Net Trips (10% Internal)	7,112	428	6%	257	172	653	9%	323	330
Phases 1 through 6 - Gross Trips	11,562	698	6%	384	314	1,148	10%	578	569
Net Trips (10% Internal)	10,405	628	6%	346	282	1,033	10%	520	512
Historic Trip Generation									
Vehicles	1,074	161	15%	120	41	150	14%	57	93
Passenger Car Equivalents	1,500	225	15%	168	57	214	14%	82	132

Notes:

1. Trip generation and pass-by rates published by Institute of Transportation Engineers (ITE), *Trip Generation Manual,* 10th Edition, 2017.
2. Pass-By trip rates published by Institute of Transportation Engineers (ITE), Trip Generation Handbook, 3rd Edition, 2017.
3. Sq. Ft. = square feet
4. ITE does not provide daily trip generation rate for Walk-In Bank (ITE Land Use 911). Daily rate estimated from Drive-In Bank (ITE Land Use 912).

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Traffic Engineer

Exhibit 7
Project Trip Generation
(Page 1 of 2 - Trip Generation Rates and Cumulative Trip Generation by Phase)

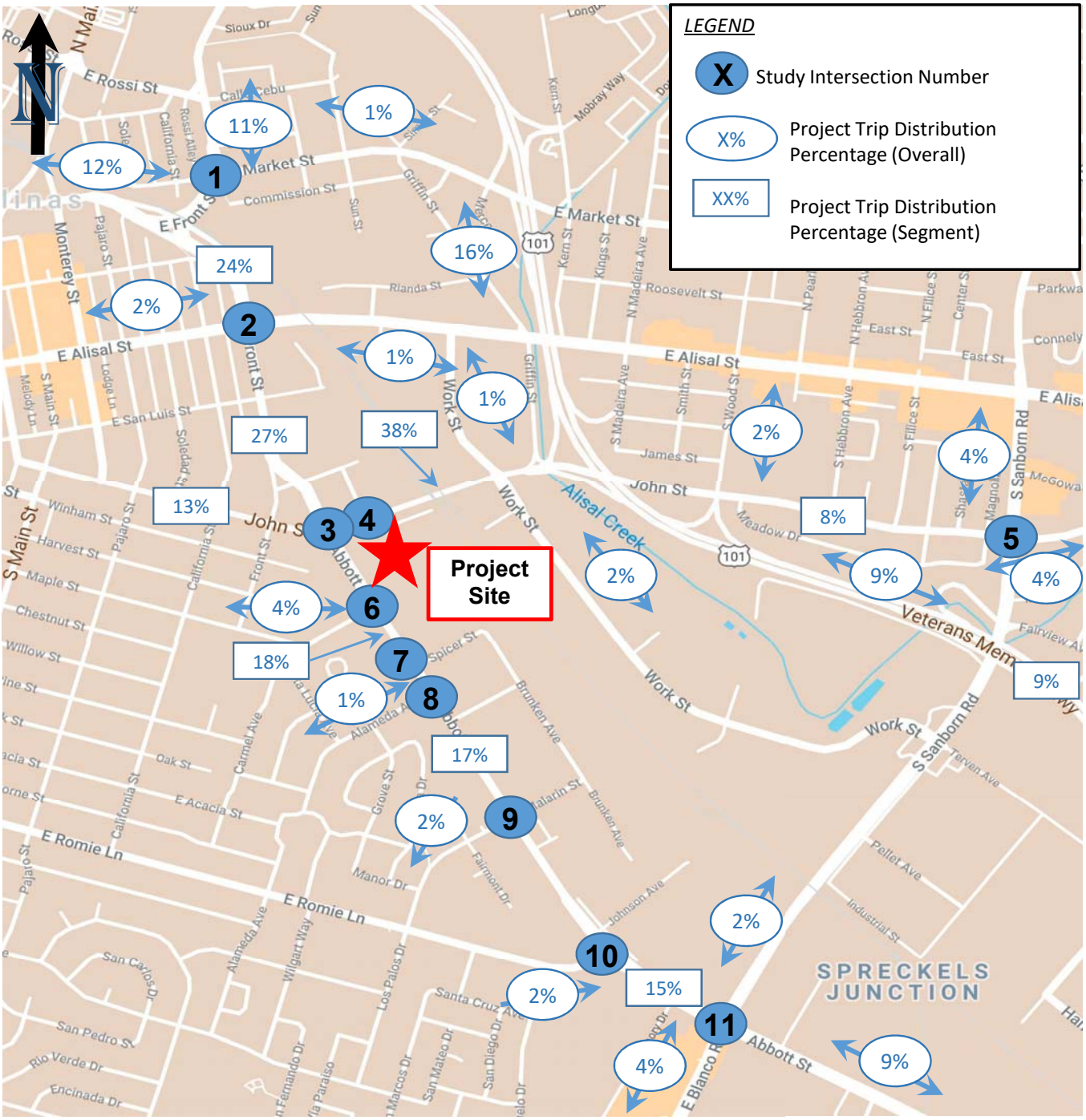
PROPOSED USE	PROJECT SIZE	DAILY TRIPS	WEEKDAY AM PEAK HOUR PEAK HOUR TRIPS	AM PEAK HOUR % OF ADT	AM PEAK HOUR TRIPS IN	AM PEAK HOUR TRIPS OUT	PM PEAK HOUR PEAK HOUR TRIPS	PM PEAK HOUR % OF ADT	PM PEAK HOUR TRIPS IN	PM PEAK HOUR TRIPS OUT
A. INITIAL PROJECT - PHASES 1 THROUGH 5										
1. PHASE 1										
Hilton Home2 Suites	111 Rooms	693	53	8%	36	17	58	8%	25	33
2. PHASE 2										
Building 1F - Variety Store	7,900 Sq. Ft.	501	25	5%	14	11	54	11%	28	26
- Multi-Family Residential	14 Units	102	6	6%	1	5	8	8%	4	4
Building 1H - Variety Store	6,000 Sq. Ft.	381	19	5%	11	8	41	11%	21	20
- Multi-Family Residential	6 Units	44	3	7%	1	2	3	7%	2	1
Building 1J - Variety Store	7,500 Sq. Ft.	476	24	5%	14	10	51	11%	27	24
- Multi-Family Residential	8 Units	59	4	7%	1	3	4	7%	2	2
Phase 2 Subtotal		1,563	81	5%	42	39	161	10%	84	77
3. PHASE 3										
Building 1G (12,800 s.f.) - Variety Store	3,200 Sq. Ft.	203	10	5%	6	4	22	11%	11	11
- Fast Food Restaurant without Drive-Through	3,200 Sq. Ft.	1,108	80	7%	48	32	91	8%	46	46
- 70% General Office	4,480 Sq. Ft.	44	5	11%	4	1	5	11%	1	4
- 30% Medical Office	1,920 Sq. Ft.	67	5	7%	4	1	7	10%	2	5
Building 1I (12,800 s.f.) - Variety Store	3,200 Sq. Ft.	203	10	5%	6	4	22	11%	11	11
- Quality Restaurant	3,200 Sq. Ft.	268	2	1%	1	1	25	9%	13	12
- 70% General Office	4,480 Sq. Ft.	44	5	11%	4	1	5	11%	1	4
- 30% Medical Office	1,920 Sq. Ft.	67	5	7%	4	1	7	10%	2	5
Phase 3 Subtotal	25,600 Sq. Ft.	2,004	122	6%	77	45	184	9%	87	97
4. PHASE 4										
Building 1D (8,500 s.f.) - Variety Store	4,250 Sq. Ft.	270	14	5%	8	6	29	11%	15	14
- Fast Food Restaurant without Drive-Through	4,250 Sq. Ft.	1,471	107	7%	64	43	120	8%	60	60
Building 1E (5,500 s.f.) - Variety Store	2,750 Sq. Ft.	175	9	5%	5	4	19	11%	10	9
- Quality Restaurant	2,750 Sq. Ft.	231	2	1%	1	1	21	9%	11	10
Phase 4 - Subtotal	14,000 Sq. Ft.	2,147	132	6%	79	53	189	9%	96	93
5. PHASE 5										
Building 1B (5,500 s.f.) - Variety Store	2,750 Sq. Ft.	175	9	5%	5	4	19	11%	10	9
- Fast Food Restaurant without Drive-Through	2,750 Sq. Ft.	952	69	7%	41	28	78	8%	39	39
Building 1C (5,000 s.f.) - Variety Store	2,500 Sq. Ft.	159	8	5%	5	3	17	11%	9	8
- Quality Restaurant	2,500 Sq. Ft.	210	2	1%	1	1	20	10%	10	10
Phase 5 Subtotal	10,500 Sq. Ft.	1,496	88	6%	52	36	134	9%	68	66
6. PHASE 6										
Building 3A - Variety Store	4,800 Sq. Ft.	305	15	5%	9	6	33	11%	17	16
- Multi-Family Residential	4 Units	29	2	7%	0	2	2	7%	1	1
Building 3B - Variety Store	5,400 Sq. Ft.	343	17	5%	10	7	37	11%	19	18
- Multi-Family Residential	18 Units	132	8	6%	2	6	10	8%	5	5
Building 3C - Variety Store	6,000 Sq. Ft.	381	19	5%	11	8	41	11%	21	20
- Multi-Family Residential	6 Units	44	3	7%	1	2	3	7%	2	1
Building 3D - Variety Store	13,000 Sq. Ft.	825	41	5%	23	18	89	11%	46	43
- Multi-Family Residential	36 Units	264	17	6%	4	13	20	8%	10	10
Building 3E - Variety Store	7,000 Sq. Ft.	444	22	5%	13	9	48	11%	25	23
- Multi-Family Residential	16 Units	117	7	6%	2	5	9	8%	5	4
Building 3F - Bank	3,800 Sq. Ft.	380	46	12%	20	26	100	26%	51	49
- Multi-Family Residential	4 Units	29	2	7%	0	2	2	7%	1	1
Building 4 - Multi-Family Residential	50 Units	366	23	6%	5	18	28	8%	15	13
Phase 6 Subtotal		3,659	222	6%	99	123	422	12%	219	203
7. PHASE 7										
Building 2A - Multi-Family Residential	80 Units	586	37	6%	9	28	45	8%	23	22
Builidng 2B (17,000 s.f.) - Variety Store	8,500 Sq. Ft.	539	27	5%	15	12	58	11%	30	28
- General Office	8,500 Sq. Ft.	83	10	12%	9	1	10	12%	2	8
Builidng 2C (20,800 s.f.) - Market	11,200 Sq. Ft.	1,196	43	4%	26	17	103	9%	53	50
- Medical Office	9,600 Sq. Ft.	334	27	8%	21	6	33	10%	9	24
Phase 7 Subtotal		2,738	144	5%	80	64	249	9%	117	132
PROJECT GRAND TOTAL (PHASES 1-7) - GROSS TRIPS		14,300	842	6%	464	378	1,397	10%	695	702
NET TRIPS (10% Internal)		12,870	758	6%	418	340	1,257	10%	625	632
ANALYZED TRIP GENERATION										
PROJECT GRAND TOTAL (PHASES 1-7) - GROSS TRIPS		14,477	862	6%	475	387	1,423	10%	708	715
NET TRIPS (10% Internal)		13,029	776	6%	427	349	1,280	10%	637	643

Note:

1. Analyzed Trip Generation is based on a prior project definition. Analysis of this prior definition consititues a slightly more conservative analysis of the project.

Keith Higgins
Traffic Engineer

Exhibit 7
Project Trip Generation
(Page 2 of 2 - Individual Trip Generation by Phase)

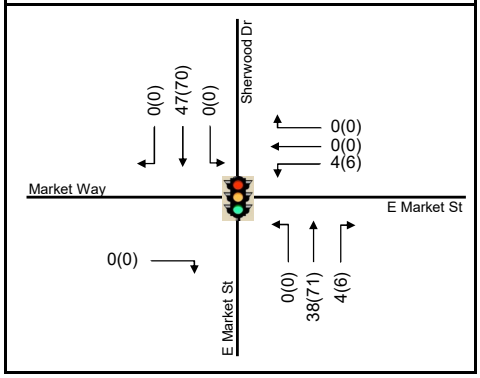


Basemap Source: Google Maps, 2019.

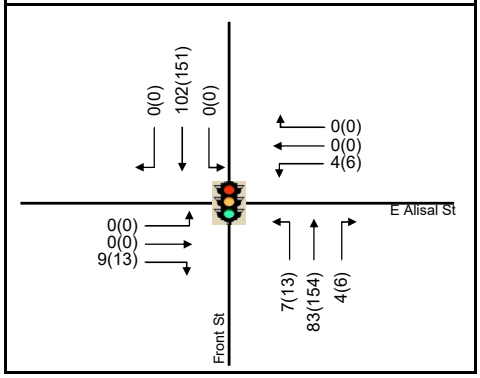
Keith Higgins
Traffic Engineer

Exhibit 8
Project Trip Distribution

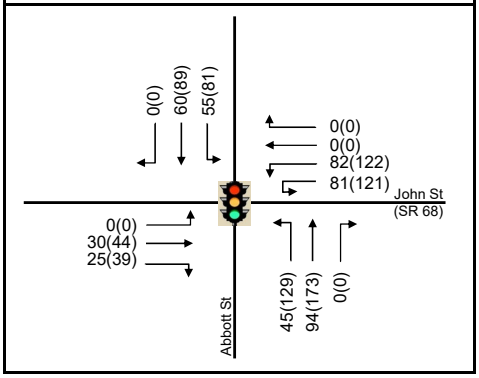
1. E Market Street - Sherwood Drive / Market Way - E Market Street



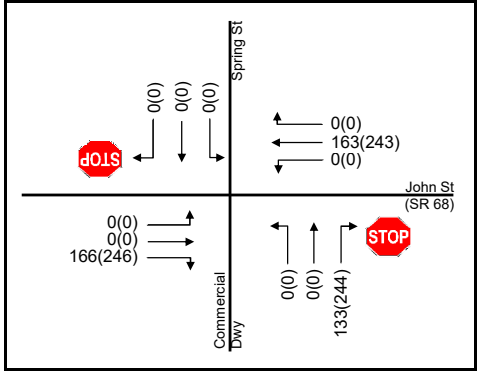
2. Front Street / E Alisal Street



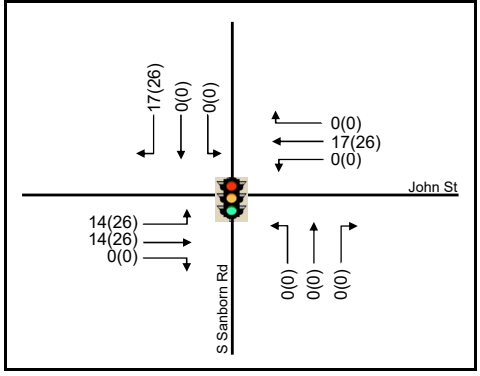
3. Abbott Street / John Street (SR 68)



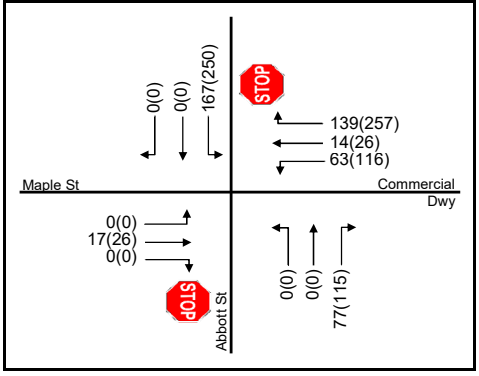
4. Spring Street / John Street (SR 68)



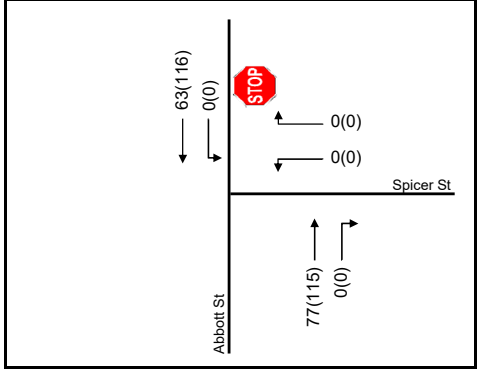
5. S Sanborn Road / John Street



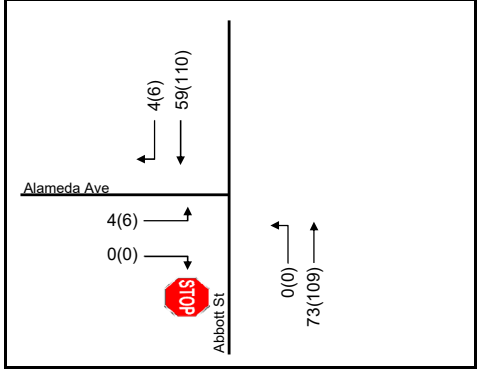
6. Abbott Street / Maple Street



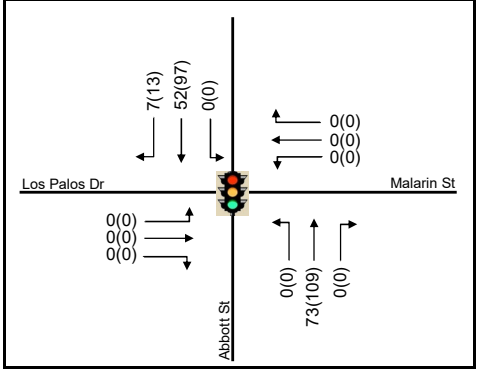
7. Abbott Street / Spicer Street



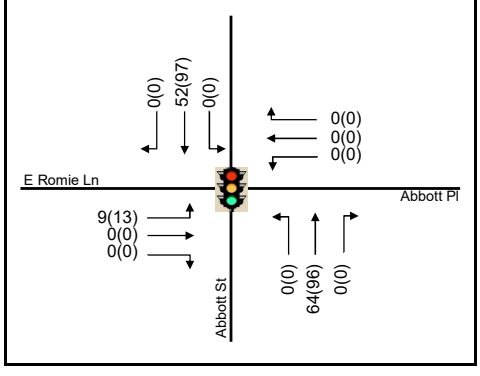
8. Abbott Street / Alameda Avenue



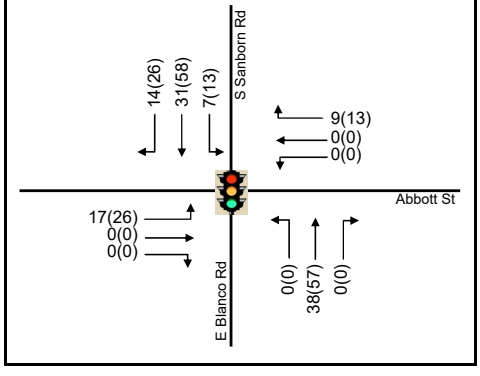
9. Abbott Street / Los Palos Drive - Malarin Street



10. Abbott Street / E Romie Lane - Abbott Place



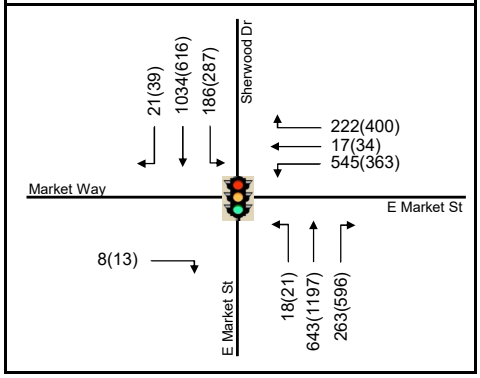
11. E Blanco Road - S Sanborn Road / Abbott Street



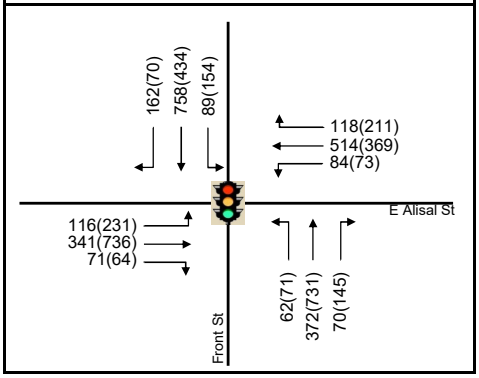
Keith Higgins
Traffic Engineer

Exhibit 9
Project Trip Assignment
AM & PM Peak Hour Volumes

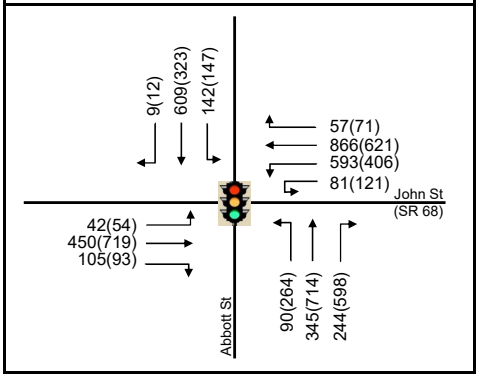
1. E Market Street - Sherwood Drive / Market Way - E Market Street



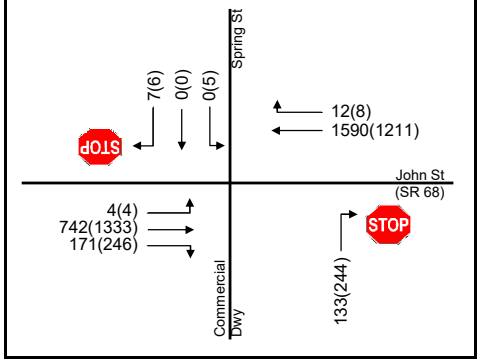
2. Front Street / E Alisal Street



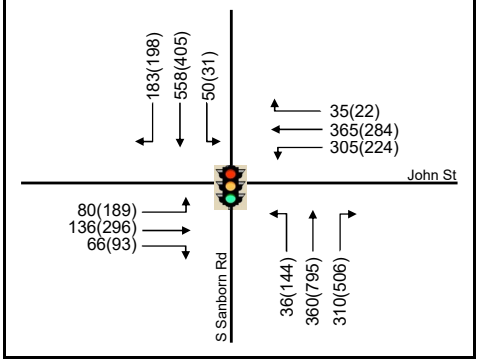
3. Abbott Street / John Street (SR 68)



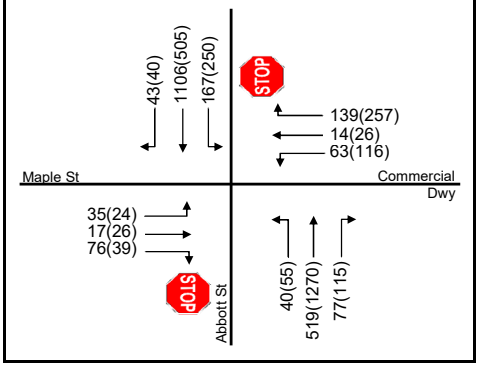
4. Spring Street / John Street (SR 68)



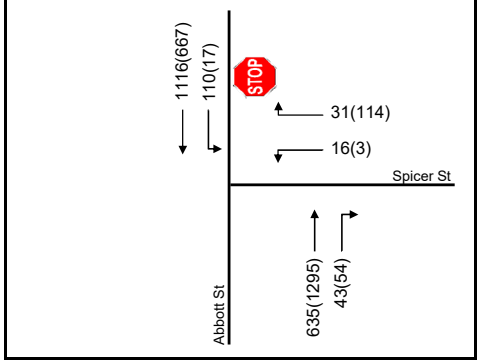
5. S Sanborn Road / John Street



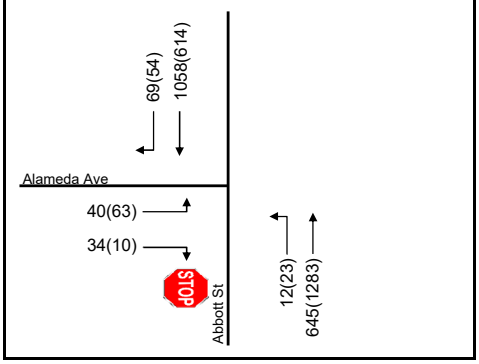
6. Abbott Street / Maple Street



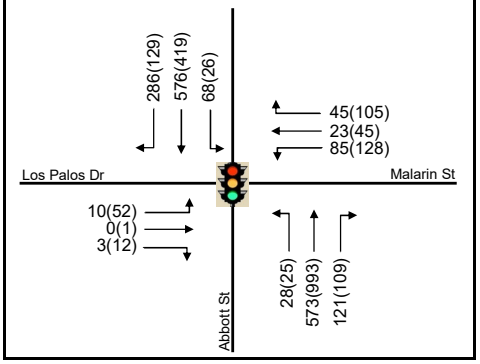
7. Abbott Street / Spicer Street



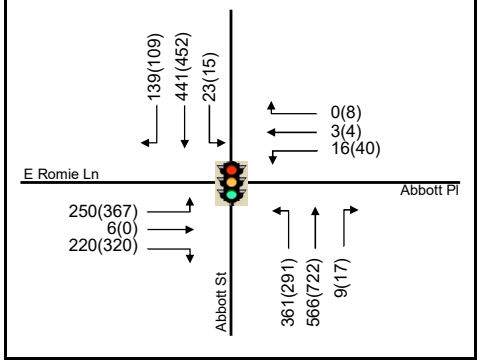
8. Abbott Street / Alameda Avenue



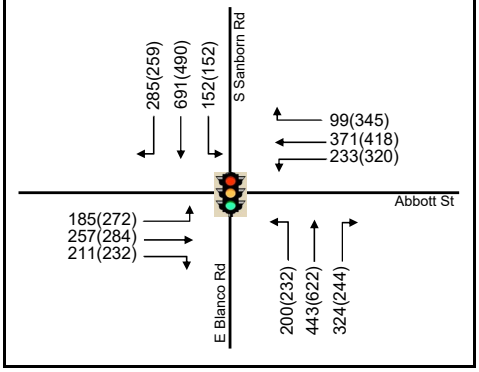
9. Abbott Street / Los Palos Drive - Malarin Street



10. Abbott Street / E Romie Lane - Abbott Place

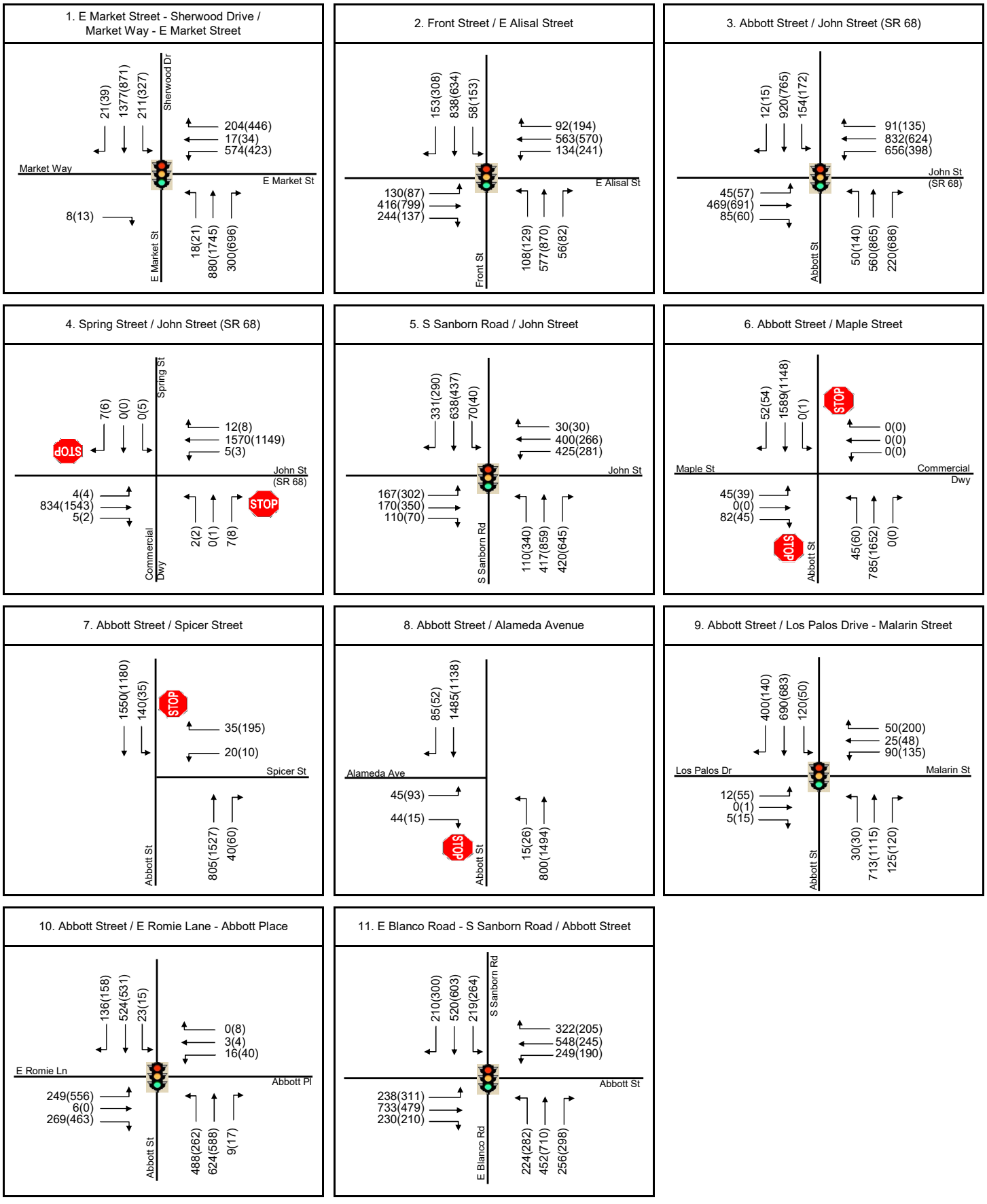


11. E Blanco Road - S Sanborn Road / Abbott Street



Keith Higgins
Traffic Engineer

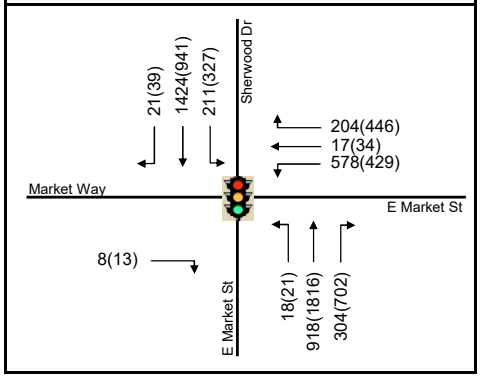
Exhibit 10
Existing Plus Project Conditions
AM & PM Peak Hour Volumes



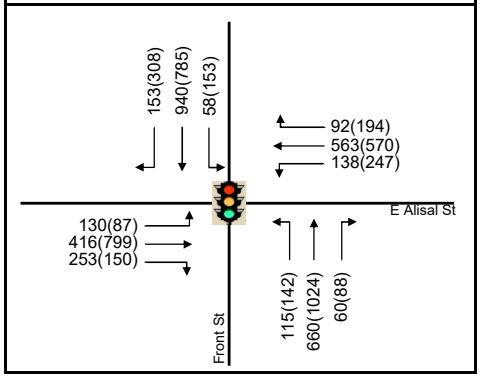
Keith Higgins
Traffic Engineer

Exhibit 11
Cumulative Without Project Conditions
AM & PM Peak Hour Volumes

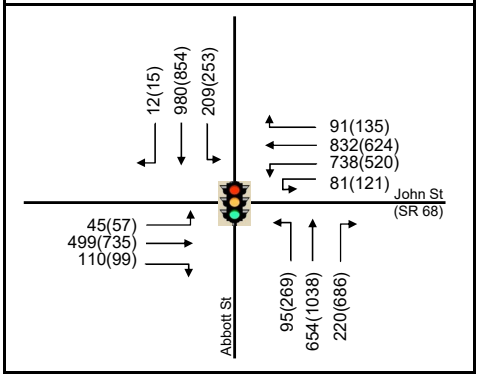
1. E Market Street - Sherwood Drive / Market Way - E Market Street



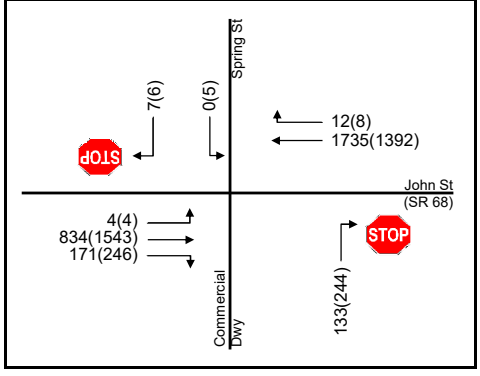
2. Front Street / E Alisal Street



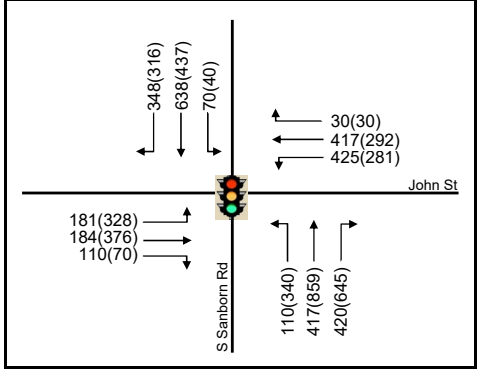
3. Abbott Street / John Street (SR 68)



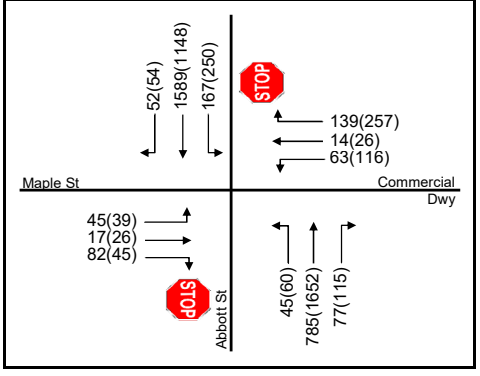
4. Spring Street / John Street (SR 68)



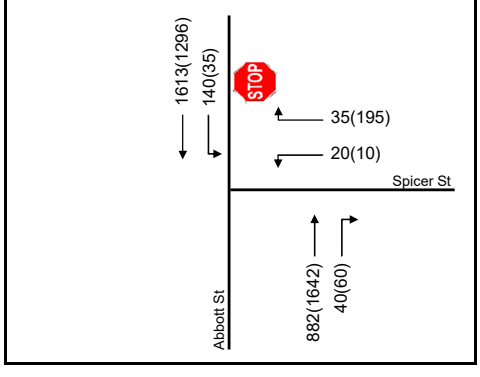
5. S Sanborn Road / John Street



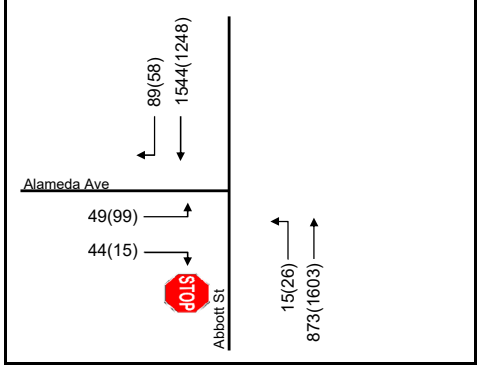
6. Abbott Street / Maple Street



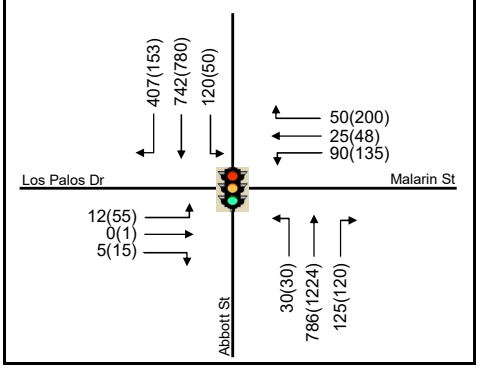
7. Abbott Street / Spicer Street



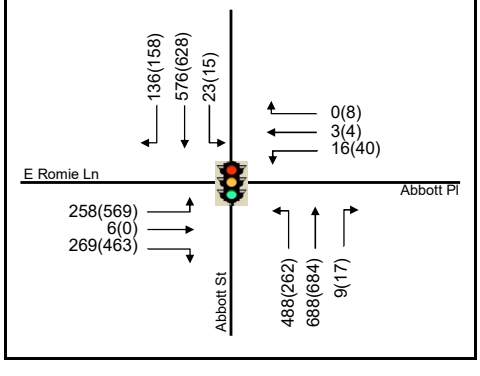
8. Abbott Street / Alameda Avenue



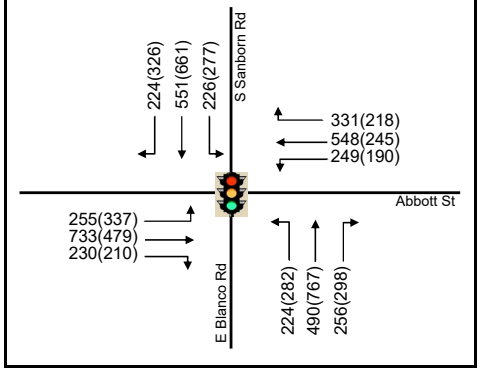
9. Abbott Street / Los Palos Drive - Malarin Street



10. Abbott Street / E Romie Lane - Abbott Place

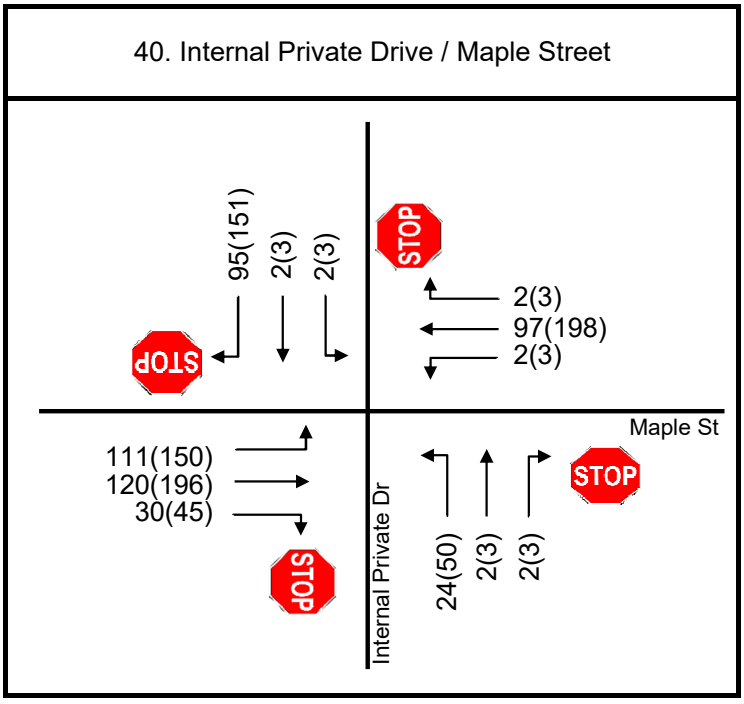


11. E Blanco Road - S Sanborn Road / Abbott Street



Keith Higgins
Traffic Engineer

Exhibit 12
Cumulative Plus Project Conditions
AM & PM Peak Hour Volumes



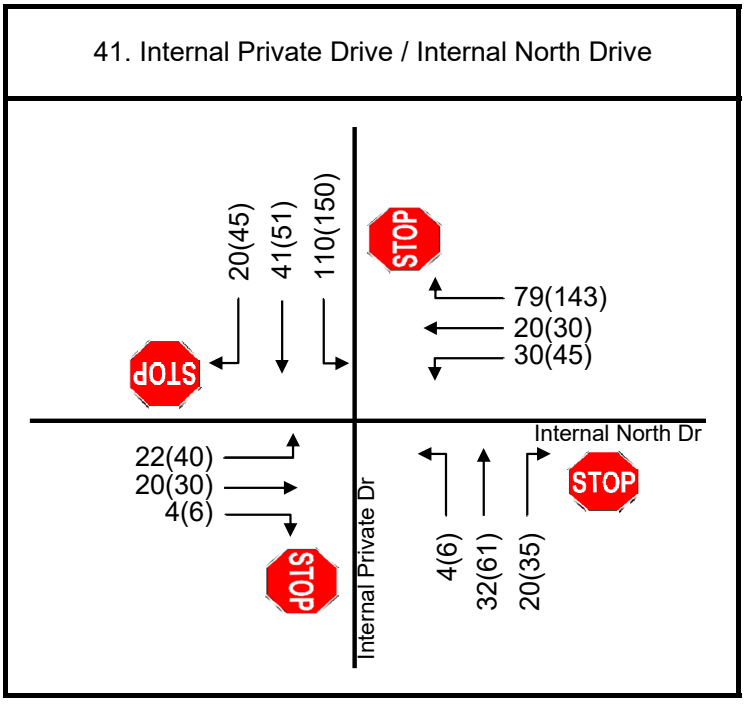


Exhibit 13
Internal Project Driveways
at Project Buildout
(Cumulative Plus Project Conditions)
AM & PM Peak Hour Volumes

Keith Higgins
Traffic Engineer

	N-S Street	E-W Street	Proposed Lane Configuration	Proposed Intersection Control	LOS Standard	Peak Hour	Cumulative Plus Project Conditions	
							Delay	LOS
40	Internal Driveways West	Maple Street	NB 1-L/T/R SB 1-L/T/R EB 1-L/T/R WB 1-L/T/R	All Way Stop	D	AM	9.0	A
						PM	12.2	B
41	Spring Street	Internal Driveways North	NB 1-L/T/R SB 1-L/T/R EB 1-L/T/R WB 1-L/T/R	All Way Stop	D	AM	8.4	A
						PM	9.8	A

Notes:

1. L, T, R = Left, Through, Right.
2. NB, SB, EB, WB = Left, Through, Right, Northbound, Southbound, Eastbound, Westbound.
3. Overall Caltrans level of service standard is the transition between LOS C and LOS D, abbreviated as "LOS C-D". Caltrans side-street st assumed as LOS C-D. City of Salinas overall and side-streeet level of service standards are LOS D.
4. For one- and two-way stop intersections, delays are side-street approach operations, also in seconds per vehicle (sec/veh).
5. Analysis performed using 2010 Highway Capacity Manual methodologies.
6. Level of service calculations can be found in **Appendix H.**
7. LOS highlighted in **red** indicates intersection operating below level of service standard.

Appendix A

Level of Service

Descriptions

APPENDIX A1

LEVEL OF SERVICE (LOS) DESCRIPTION
SIGNALIZED INTERSECTIONS

The capacity of an urban street is related primarily to the signal timing and the geometric characteristics of the facility as well as to the composition of traffic on the facility. Geometrics are a fixed characteristic of a facility. Thus, while traffic composition may vary somewhat over time, the capacity of a facility is generally a stable value that can be significantly improved only by initiating geometric improvements. A traffic signal essentially allocates time among conflicting traffic movements that seek to use the same space. The way in which time is allocated significantly affects the operation and the capacity of the intersection and its approaches.

The methodology for signalized intersection is designed to consider individual intersection approaches and individual lane groups within approaches. A lane group consists of one or more lanes on an intersection approach. The outputs from application of the method described in the HCM 2010 and 2000 are reported on the basis of each lane. For a given lane group at a signalized intersection, three indications are displayed: green, yellow and red. The red indication may include a short period during which all indications are red, referred to as an all-red interval and the yellow indication forms the change and clearance interval between two green phases.

The methodology for analyzing the capacity and level of service must consider a wide variety of prevailing conditions, including the amount and distribution of traffic movements, traffic composition, geometric characteristics, and details of intersection signalization. The methodology addresses the capacity, LOS, and other performance measures for lane groups and the intersection approaches and the LOS for the intersection as a whole.

Capacity is evaluated in terms of the ratio of demand flow rate to capacity (v/c ratio), whereas LOS is evaluated on the basis of control delay per vehicle (in seconds per vehicle). The methodology does not take into account the potential impact of downstream congestion on intersection operation, nor does the methodology detect and adjust for the impacts of turn-pocket overflows on through traffic and intersection operation.

LEVEL OF SERVICE (LOS) CRITERIA FOR SIGNALIZED INTERSECTIONS

(Reference 2010 and 2000 Highway Capacity Manual)

Level of Service	Control Delay (seconds / vehicle)
A	**<10**
B	**>10 - 20**
C	**>20 - 35**
D	**>35 - 55**
E	**>55 - 80**
F	**>80**

APPENDIX A2

LEVEL OF SERVICE (LOS) DESCRIPTION
UNSIGNALIZED INTERSECTIONS WITH ALL-WAY STOP CONTROL (AWSC)

AWSC intersections require every vehicle to stop at the intersection before proceeding. Since each driver must stop, the judgement as to whether to proceed into the intersection is a function of traffic conditions on the other approaches. While giving priority to the driver on the right is a recognized rule in some areas, it is not a good descriptor of actual intersection operations. What happens is the development of a consensus of right-of-way that alternates between the drivers on the intersection approaches, a consensus that depends primarily on the intersection geometry and the arrival patterns at the stop line.

If no traffic is present on the other approaches, a driver can proceed immediately after the stop is made. If there is traffic on one or more of the other approaches, a driver proceeds only after determining that there are no vehicles currently in the intersection and that it is the driver's turn to proceed. Since no traffic signal controls the stream movement or allocates the right-of-way to each conflicting stream, the rate of departure is controlled by the interaction between the traffic streams themselves.

For AWSC intersections, the average control delay (in seconds per vehicle) is used as the primary measure of performance. Control delay is the increased time of travel for a vehicle approaching and passing through an AWSC intersection, compared with a free-flow vehicle if it were not required to slow down or stop at the intersection.

The criteria for AWSC intersections have different threshold values than do those for signalized intersections, primarily because drivers expect different levels of performance from different kinds of traffic control devices (i.e., traffic signals, two way stop or all way stop, etc.). The expectation is that a signalized intersection is designed to carry higher traffic volumes than an AWSC intersection and a higher level of control delay is acceptable at a signalized intersection for the same LOS.

For AWSC analysis using the HCM 2010 method, the LOS shown reflects the weighted average of the delay on each of the approaches.

LEVEL OF SERVICE (LOS) CRITERIA FOR AWSC INTERSECTIONS
(Reference 2010 Highway Capacity Manual)

Level of Service	Control Delay (seconds / vehicle)
A	**0 - 10**
B	**>10 - 15**
C	**>15 - 25**
D	**>25 - 35**
E	**>35 - 50**
F	**>50**

APPENDIX A3

LEVEL OF SERVICE (LOS) DESCRIPTION
UNSIGNALIZED INTERSECTIONS WITH TWO-WAY STOP CONTROL (TWSC)

TWSC intersections are widely used and stop signs are used to control vehicle movements at such intersections. At TWSC intersections, the stop-controlled approaches are referred to as the minor street approaches; they can be either public streets or private driveways. The intersection approaches that are not controlled by stop signs are referred to as the major street approaches. A three-leg intersection is considered to be a standard type of TWSC intersection if the single minor street approach (i.e. the stem of the T configuration) is controlled by a stop sign. Three-leg intersections where two of the three approaches are controlled by stop signs are a special form of unsignalized intersection control.

At TWSC intersections, drivers on the controlled approaches are required to select gaps in the major street flow through which to execute crossing or turning maneuvers on the basis of judgment. In the presence of a queue, each driver on the controlled approach must use some time to move into the front-of-queue position and prepare to evaluate gaps in the major street flow. Capacity analysis at TWSC intersections depends on a clear description and understanding of the interaction of drivers on the minor or stop-controlled approach with drivers on the major street. Both gap acceptance and empirical models have been developed to describe this interaction.

Thus, the capacity of the controlled legs is based on three factors:

- the distribution of gaps in the major street traffic stream;
- driver judgment in selecting gaps through which to execute the desired maneuvers; and
- the follow-up time required by each driver in a queue.

The delay experienced by a motorist is made up of a number of factors that relate to control, geometrics, traffic and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during base conditions, in the absence of incident, control, traffic or geometric delay. Average control delay for any particular minor movement is a function of the capacity of the approach and the degree of saturation and referred to as level of service.

LEVEL OF SERVICE (LOS) CRITERIA FOR TWSC INTERSECTIONS

(Reference 2010 Highway Capacity Manual)

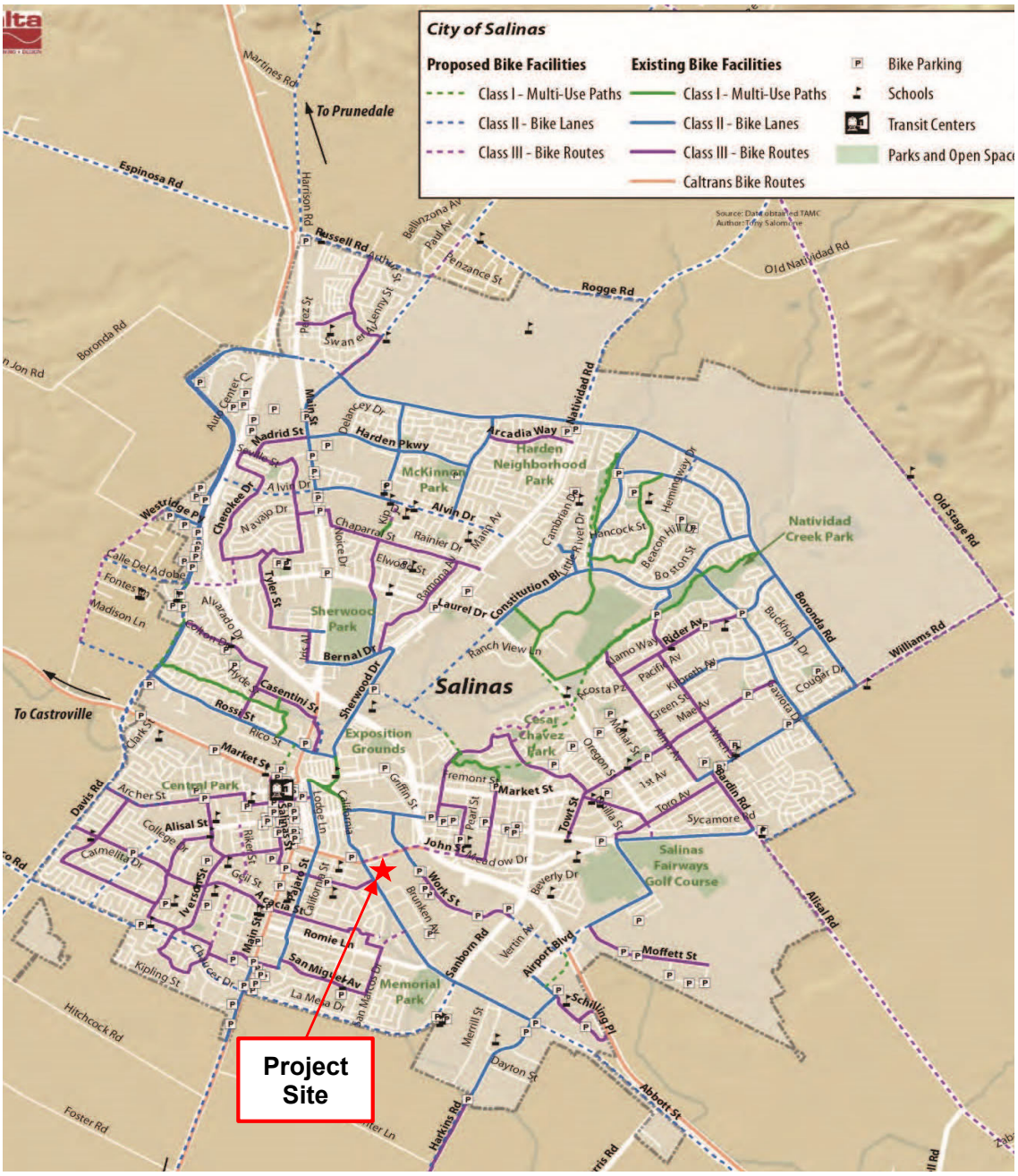
Level of Service	Control Delay (seconds / vehicle)
A	**0 - 10**
B	**>10 - 15**
C	**>15 - 25**
D	**>25 - 35**
E	**>35 - 50**
F	**>50**

Appendix B

Existing and Proposed

Bicycle Facilities

near Project Site



Basemap Source: *Transportation Agency for Monterey County Bicycle and Pedestrian Master Plan,* Alta Planning + Design, December 2011.

Appendix C

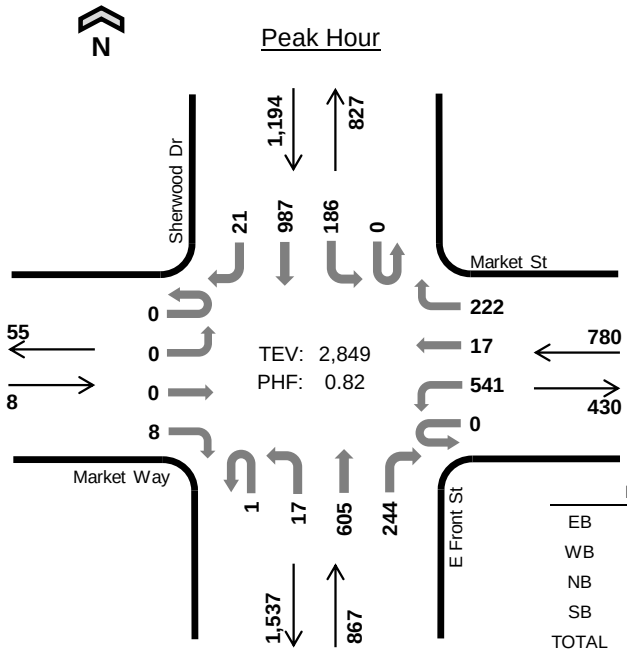
Intersection

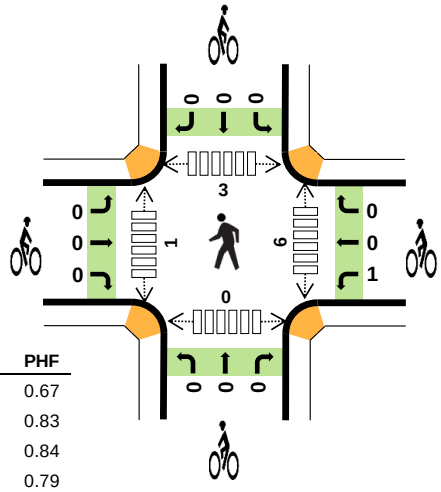
Traffic Volume

Counts

E Front St
Market Way

Date: 11-21-2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM





	HV %:	PHF
EB	0.0%	0.67
WB	3.3%	0.83
NB	3.2%	0.84
SB	1.8%	0.79
TOTAL	2.6%	0.82

Two-Hour Count Summaries

Interval Start		Market Way Eastbound				Market St Westbound				E Front St Northbound				Sherwood Dr Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	62	1	30	0	4	56	35	0	29	128	2	347	0
7:15 AM		0	0	0	0	0	82	3	29	0	4	102	42	0	39	182	5	488	0
7:30 AM		**0**	**0**	**0**	**1**	**0**	**153**	**4**	**57**	**1**	**4**	**150**	**44**	**0**	**22**	**272**	**1**	**709**	0
7:45 AM		**0**	**0**	**0**	**3**	**0**	**187**	**3**	**44**	**0**	**7**	**169**	**81**	**0**	**64**	**303**	**9**	**870**	2,414
8:00 AM		**0**	**0**	**0**	**3**	**0**	**121**	**4**	**60**	**0**	**2**	**145**	**71**	**0**	**54**	**212**	**8**	**680**	2,747
8:15 AM		**0**	**0**	**0**	**1**	**0**	**80**	**6**	**61**	**0**	**4**	**141**	**48**	**0**	**46**	**200**	**3**	**590**	**2,849**
8:30 AM		0	0	0	0	0	92	8	46	0	2	130	85	0	55	179	7	604	2,744
8:45 AM		0	0	0	2	0	82	15	59	0	3	130	54	0	62	173	7	587	2,461
Count Total		0	0	0	10	0	859	44	386	1	30	1,023	460	0	371	1,649	42	4,875	0
Peak Hour	**All**	**0**	**0**	**0**	**8**	**0**	**541**	**17**	**222**	**1**	**17**	**605**	**244**	**0**	**186**	**987**	**21**	**2,849**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**19**	**0**	**7**	**0**	**0**	**16**	**12**	**0**	**9**	**12**	**0**	**75**	**0**
	HV%	**-**	**-**	**-**	**0%**	**-**	**4%**	**0%**	**3%**	**0%**	**0%**	**3%**	**5%**	**-**	**5%**	**1%**	**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	2	16	4	*22*	0	0	1	0	*1*	0	0	0	0	*0*
7:15 AM	0	5	7	3	*15*	0	0	0	0	*0*	4	1	0	0	*5*
7:30 AM	**0**	**7**	**5**	**4**	***16***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
7:45 AM	**0**	**9**	**12**	**4**	***25***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**1**	**0**	*3*
8:00 AM	**0**	**6**	**3**	**6**	***15***	**0**	**1**	**0**	**0**	***1***	**2**	**1**	**2**	**0**	*5*
8:15 AM	**0**	**4**	**8**	**7**	***19***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	***1***
8:30 AM	0	10	10	2	*22*	0	0	0	0	*0*	1	0	2	0	*3*
8:45 AM	0	7	3	2	*12*	0	0	0	0	*0*	2	0	3	0	*5*
Count Total	0	50	64	32	*146*	0	1	1	0	*2*	13	2	8	0	*23*
Peak Hour	**0**	**26**	**28**	**21**	***75***	**0**	**1**	**0**	**0**	***1***	**6**	**1**	**3**	**0**	***10***

Two-Hour Count Summaries - Heavy Vehicles

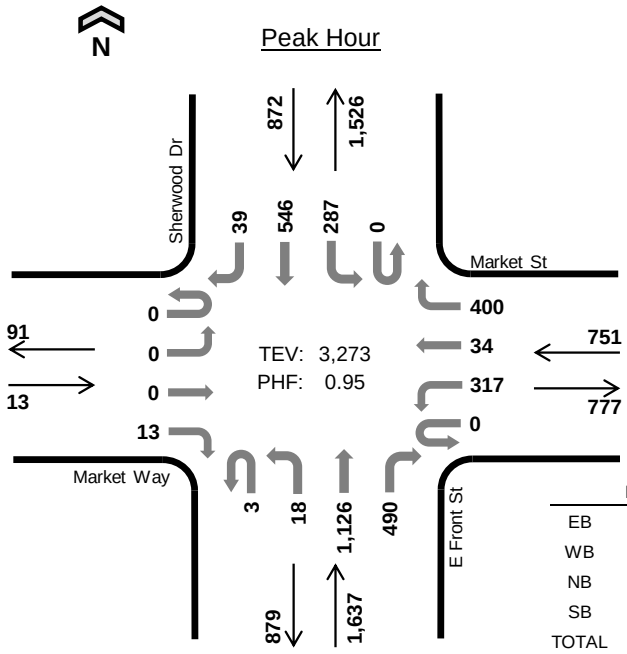
Interval Start	Market Way				Market St				E Front St				Sherwood Dr				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	1	0	1	0	0	3	13	0	1	3	0	22	0
7:15 AM	0	0	0	0	0	5	0	0	0	0	4	3	0	1	2	0	15	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**3**	**0**	**0**	**4**	**1**	**0**	**2**	**2**	**0**	**16**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**2**	**0**	**0**	**6**	**6**	**0**	**2**	**2**	**0**	**25**	78
8:00 AM	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**1**	**0**	**0**	**1**	**2**	**0**	**2**	**4**	**0**	**15**	71
8:15 AM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**1**	**0**	**0**	**5**	**3**	**0**	**3**	**4**	**0**	**19**	**75**
8:30 AM	0	0	0	0	0	9	0	1	0	0	2	8	0	2	0	0	22	81
8:45 AM	0	0	0	0	0	5	1	1	0	0	1	2	0	0	2	0	12	68
Count Total	0	0	0	0	0	39	1	10	0	0	26	38	0	13	19	0	146	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**19**	**0**	**7**	**0**	**0**	**16**	**12**	**0**	**9**	**12**	**0**	**75**	**0**

Two-Hour Count Summaries - Bikes

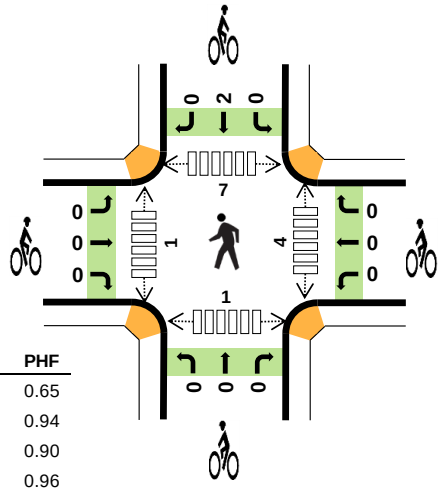
Interval Start	Market Way			Market St			E Front St			Sherwood Dr			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
8:00 AM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	1
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	1	0	0	0	1	0	0	0	0	2	0
Peak Hour	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**

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

E Front St
Market Way



Date: 11-21-2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM



	HV %:	PHF
EB	0.0%	0.65
WB	1.6%	0.94
NB	1.2%	0.90
SB	0.9%	0.96
TOTAL	1.2%	0.95

Two-Hour Count Summaries

Interval Start		Market Way Eastbound				Market St Westbound				E Front St Northbound				Sherwood Dr Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	2	0	88	10	92	0	8	234	106	0	61	129	5	735	0
4:15 PM		0	0	0	4	0	80	3	76	1	3	222	122	0	83	124	8	726	0
4:30 PM		0	0	0	4	0	82	5	78	2	7	241	137	0	69	108	10	743	0
4:45 PM		**0**	**0**	**0**	**2**	**0**	**74**	**4**	**91**	**2**	**5**	**235**	**130**	**0**	**85**	**132**	**10**	**770**	2,974
5:00 PM		**0**	**0**	**0**	**4**	**0**	**80**	**12**	**108**	**1**	**4**	**288**	**110**	**0**	**81**	**128**	**10**	**826**	3,065
5:15 PM		**0**	**0**	**0**	**2**	**0**	**78**	**10**	**103**	**0**	**2**	**313**	**139**	**0**	**60**	**147**	**8**	**862**	3,201
5:30 PM		**0**	**0**	**0**	**5**	**0**	**85**	**8**	**98**	**0**	**7**	**290**	**111**	**0**	**61**	**139**	**11**	**815**	**3,273**
5:45 PM		0	0	0	6	0	68	3	72	0	7	184	107	0	63	120	7	637	3,140
Count Total		0	0	0	29	0	635	55	718	6	43	2,007	962	0	563	1,027	69	6,114	0
Peak Hour	**All**	**0**	**0**	**0**	**13**	**0**	**317**	**34**	**400**	**3**	**18**	**1,126**	**490**	**0**	**287**	**546**	**39**	**3,273**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**7**	**2**	**3**	**0**	**0**	**2**	**17**	**0**	**4**	**4**	**0**	**39**	**0**
	HV%	**-**	**-**	**-**	**0%**	**-**	**2%**	**6%**	**1%**	**0%**	**0%**	**0%**	**3%**	**-**	**1%**	**1%**	**0%**	**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	7	3	3	*13*	2	1	0	1	*4*	2	2	5	0	*9*
4:15 PM	0	6	5	5	*16*	0	0	0	0	*0*	1	1	2	0	*4*
4:30 PM	0	1	10	2	*13*	0	0	0	1	*1*	2	0	5	0	*7*
4:45 PM	**0**	**3**	**4**	**2**	***9***	**0**	**0**	**0**	**1**	***1***	**1**	**1**	**3**	**0**	*5*
5:00 PM	**0**	**3**	**4**	**3**	***10***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**2**	**1**	*4*
5:15 PM	**0**	**5**	**3**	**0**	***8***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	*1*
5:30 PM	**0**	**1**	**8**	**3**	***12***	**0**	**0**	**0**	**1**	***1***	**2**	**0**	**1**	**0**	***3***
5:45 PM	0	2	1	1	*4*	0	0	0	0	*0*	7	0	3	0	*10*
Count Total	0	28	38	19	*85*	2	1	0	4	*7*	16	4	22	1	*43*
Peak Hour	**0**	**12**	**19**	**8**	***39***	**0**	**0**	**0**	**2**	***2***	**4**	**1**	**7**	**1**	***13***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Market Way				Market St				E Front St				Sherwood Dr				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	5	1	1	0	0	1	2	0	1	2	0	13	0
4:15 PM	0	0	0	0	0	6	0	0	0	0	0	5	0	4	1	0	16	0
4:30 PM	0	0	0	0	0	1	0	0	0	0	1	9	0	0	2	0	13	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**4**	**0**	**1**	**1**	**0**	**9**	51
5:00 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**4**	**0**	**1**	**2**	**0**	**10**	48
5:15 PM	**0**	**0**	**0**	**0**	**0**	**3**	**2**	**0**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**8**	40
5:30 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**7**	**0**	**2**	**1**	**0**	**12**	**39**
5:45 PM	0	0	0	0	0	2	0	0	0	0	0	1	0	0	1	0	4	34
Count Total	0	0	0	0	0	21	3	4	0	0	4	34	0	9	10	0	85	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**7**	**2**	**3**	**0**	**0**	**2**	**17**	**0**	**4**	**4**	**0**	**39**	**0**

Two-Hour Count Summaries - Bikes

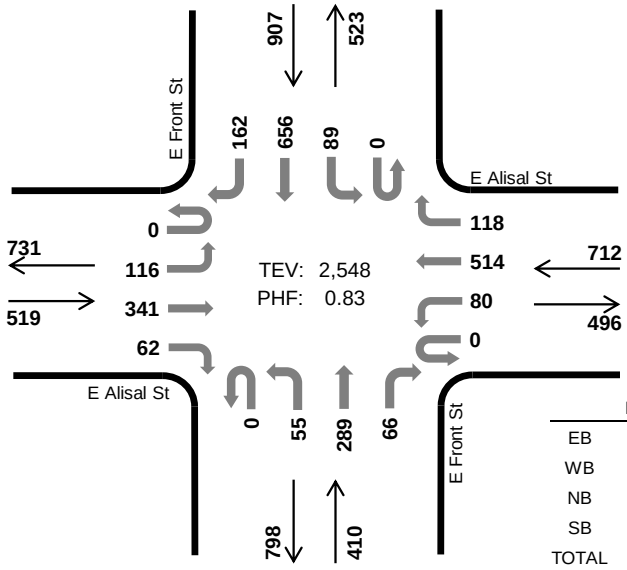
Interval Start	Market Way			Market St			E Front St			Sherwood Dr			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	2	0	0	1	0	0	0	0	0	1	0	4	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	6
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	2
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	2
5:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**2**
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	2	0	0	1	0	0	0	0	0	3	1	7	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**2**	**0**

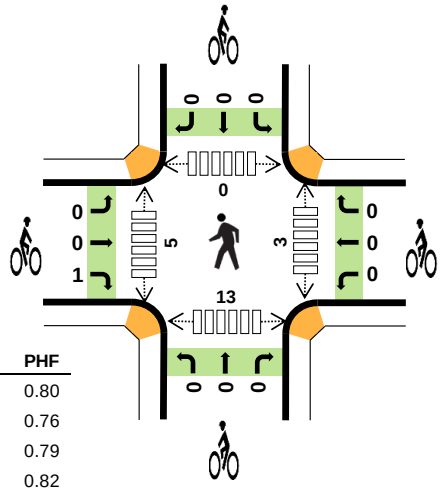
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

E Front St
E Alisal St

Date: 11-21-2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM

Peak Hour





	HV %:	PHF
EB	2.3%	0.80
WB	3.2%	0.76
NB	6.6%	0.79
SB	2.2%	0.82
TOTAL	3.2%	0.83

Two-Hour Count Summaries

Interval Start		E Alisal St Eastbound				E Alisal St Westbound				E Front St Northbound				E Front St Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	8	30	7	0	6	52	21	0	7	32	4	0	18	91	9	285	0
7:15 AM		0	17	44	5	0	8	78	33	0	13	65	11	0	20	111	12	417	0
7:30 AM		0	20	58	11	0	15	129	27	0	8	62	18	0	27	159	32	566	0
7:45 AM		**0**	**38**	**103**	**22**	**0**	**30**	**176**	**27**	**0**	**12**	**66**	**16**	**0**	**21**	**197**	**60**	**768**	2,036
8:00 AM		**0**	**22**	**93**	**10**	**0**	**19**	**127**	**29**	**0**	**11**	**58**	**19**	**0**	**24**	**164**	**53**	**629**	2,380
8:15 AM		**0**	**34**	**83**	**14**	**0**	**17**	**97**	**36**	**0**	**12**	**74**	**12**	**0**	**22**	**159**	**23**	**583**	2,546
8:30 AM		**0**	**22**	**62**	**16**	**0**	**14**	**114**	**26**	**0**	**20**	**91**	**19**	**0**	**22**	**136**	**26**	**568**	**2,548**
8:45 AM		0	24	87	7	0	11	114	42	0	8	71	13	0	30	132	21	560	2,340
Count Total		0	185	560	92	0	120	887	241	0	91	519	112	0	184	1,149	236	4,376	0
Peak Hour	**All**	**0**	**116**	**341**	**62**	**0**	**80**	**514**	**118**	**0**	**55**	**289**	**66**	**0**	**89**	**656**	**162**	**2,548**	**0**
	HV	**0**	**1**	**10**	**1**	**0**	**3**	**12**	**8**	**0**	**2**	**19**	**6**	**0**	**5**	**14**	**1**	**82**	**0**
	HV%	**-**	**1%**	**3%**	**2%**	**-**	**4%**	**2%**	**7%**	**-**	**4%**	**7%**	**9%**	**-**	**6%**	**2%**	**1%**	**3%**	**0**

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	4	2	3	8	*17*	0	0	0	0	*0*	1	0	1	1	*3*
7:15 AM	1	7	8	7	*23*	0	0	0	0	*0*	0	0	1	0	*1*
7:30 AM	6	15	5	5	*31*	0	0	0	0	*0*	0	2	0	6	*8*
7:45 AM	**3**	**5**	**6**	**5**	***19***	**0**	**0**	**0**	**0**	***0***	**0**	**3**	**0**	**10**	*13*
8:00 AM	**2**	**6**	**6**	**5**	***19***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
8:15 AM	**4**	**3**	**5**	**5**	***17***	**1**	**0**	**0**	**0**	***1***	**1**	**1**	**0**	**2**	*4*
8:30 AM	**3**	**9**	**10**	**5**	***27***	**0**	**0**	**0**	**0**	***0***	**1**	**1**	**0**	**1**	***3***
8:45 AM	1	7	4	11	*23*	0	0	1	0	*1*	1	0	0	3	*4*
Count Total	24	54	47	51	*176*	1	0	1	0	*2*	5	7	2	23	*37*
Peak Hour	**12**	**23**	**27**	**20**	***82***	**1**	**0**	**0**	**0**	***1***	**3**	**5**	**0**	**13**	***21***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	E Alisal St				E Alisal St				E Front St				E Front St				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	2	1	0	0	2	0	0	0	3	0	0	4	4	0	17	0
7:15 AM	0	1	0	0	0	2	4	1	0	2	4	2	0	0	7	0	23	0
7:30 AM	0	0	5	1	0	5	7	3	0	1	4	0	0	0	5	0	31	0
7:45 AM	**0**	**1**	**2**	**0**	**0**	**1**	**1**	**3**	**0**	**0**	**5**	**1**	**0**	**2**	**2**	**1**	**19**	90
8:00 AM	**0**	**0**	**1**	**1**	**0**	**2**	**3**	**1**	**0**	**1**	**2**	**3**	**0**	**1**	**4**	**0**	**19**	92
8:15 AM	**0**	**0**	**4**	**0**	**0**	**0**	**2**	**1**	**0**	**0**	**5**	**0**	**0**	**1**	**4**	**0**	**17**	86
8:30 AM	**0**	**0**	**3**	**0**	**0**	**0**	**6**	**3**	**0**	**1**	**7**	**2**	**0**	**1**	**4**	**0**	**27**	**82**
8:45 AM	0	0	1	0	0	0	4	3	0	0	3	1	0	0	10	1	23	86
Count Total	0	3	18	3	0	10	29	15	0	5	33	9	0	9	40	2	176	0
Peak Hour	**0**	**1**	**10**	**1**	**0**	**3**	**12**	**8**	**0**	**2**	**19**	**6**	**0**	**5**	**14**	**1**	**82**	**0**

Two-Hour Count Summaries - Bikes

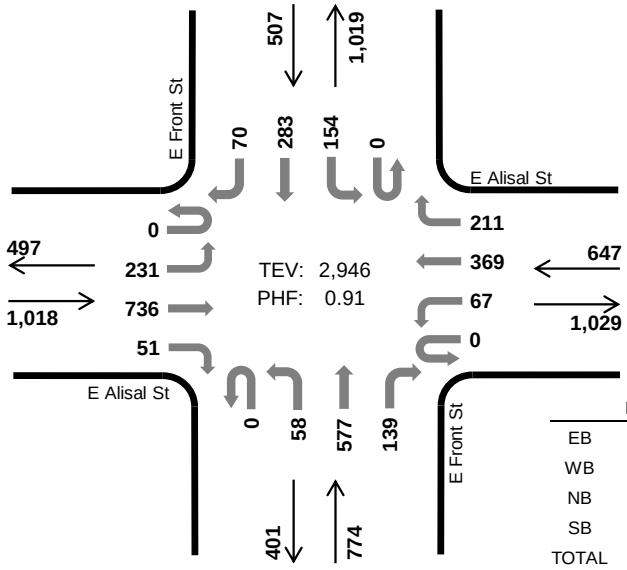
Interval Start	E Alisal St			E Alisal St			E Front St			E Front St			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:15 AM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	1
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
8:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	1	2
Count Total	0	0	1	0	0	0	0	0	1	0	0	0	2	0
Peak Hour	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**

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

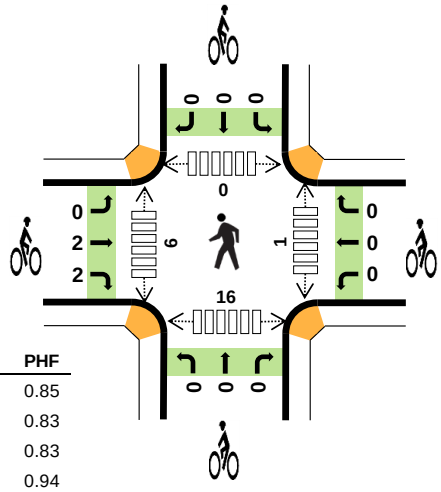
E Front St
E Alisal St

Date: 11-21-2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM

Peak Hour



	HV %:	PHF
EB	1.0%	0.85
WB	1.7%	0.83
NB	1.0%	0.83
SB	4.3%	0.94
TOTAL	1.7%	0.91



Two-Hour Count Summaries

Interval Start		E Alisal St Eastbound				E Alisal St Westbound				E Front St Northbound				E Front St Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	43	179	14	0	13	94	45	0	12	142	33	0	38	84	21	718	0
4:15 PM		0	37	155	9	0	11	77	46	0	14	117	34	0	44	90	25	659	0
4:30 PM		**0**	**44**	**155**	**9**	**0**	**15**	**88**	**54**	**0**	**9**	**145**	**28**	**0**	**38**	**78**	**19**	**682**	0
4:45 PM		**0**	**44**	**179**	**15**	**0**	**20**	**86**	**38**	**0**	**19**	**127**	**22**	**0**	**40**	**64**	**18**	**672**	2,731
5:00 PM		**0**	**78**	**209**	**14**	**0**	**19**	**86**	**47**	**0**	**12**	**173**	**47**	**0**	**36**	**75**	**17**	**813**	2,826
5:15 PM		**0**	**65**	**193**	**13**	**0**	**13**	**109**	**72**	**0**	**18**	**132**	**42**	**0**	**40**	**66**	**16**	**779**	**2,946**
5:30 PM		0	48	139	6	0	8	102	55	0	12	113	23	0	55	91	23	675	2,939
5:45 PM		0	47	121	12	0	14	84	32	0	8	77	14	0	34	69	23	535	2,802
Count Total		0	406	1,330	92	0	113	726	389	0	104	1,026	243	0	325	617	162	5,533	0
Peak Hour	**All**	**0**	**231**	**736**	**51**	**0**	**67**	**369**	**211**	**0**	**58**	**577**	**139**	**0**	**154**	**283**	**70**	**2,946**	**0**
	HV	**0**	**1**	**7**	**2**	**0**	**0**	**8**	**3**	**0**	**1**	**7**	**0**	**0**	**2**	**19**	**1**	**51**	**0**
	HV%	**-**	**0%**	**1%**	**4%**	**-**	**0%**	**2%**	**1%**	**-**	**2%**	**1%**	**0%**	**-**	**1%**	**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
4:00 PM	8	2	3	1	*14*	1	0	0	0	*1*	0	0	0	1	*1*
4:15 PM	4	5	7	7	*23*	0	0	0	0	*0*	0	2	0	9	*11*
4:30 PM	**3**	**3**	**1**	**4**	***11***	**1**	**0**	**0**	**0**	***1***	**1**	**1**	**0**	**6**	*8*
4:45 PM	**2**	**3**	**4**	**5**	***14***	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**2**	*2*
5:00 PM	**2**	**3**	**1**	**8**	***14***	**1**	**0**	**0**	**0**	***1***	**0**	**4**	**0**	**3**	*7*
5:15 PM	**3**	**2**	**2**	**5**	***12***	**1**	**0**	**0**	**0**	***1***	**0**	**1**	**0**	**5**	***6***
5:30 PM	0	3	3	4	*10*	0	1	0	0	*1*	1	4	0	3	*8*
5:45 PM	1	0	3	3	*7*	0	0	0	1	*1*	4	0	2	3	*9*
Count Total	23	21	24	37	*105*	5	1	0	1	*7*	6	12	2	32	*52*
Peak Hour	**10**	**11**	**8**	**22**	***51***	**4**	**0**	**0**	**0**	***4***	**1**	**6**	**0**	**16**	***23***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	E Alisal St				E Alisal St				E Front St				E Front St				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	7	0	0	0	1	1	0	0	3	0	0	0	1	0	14	0
4:15 PM	0	0	4	0	0	0	1	4	0	0	6	1	0	2	5	0	23	0
4:30 PM	**0**	**0**	**3**	**0**	**0**	**0**	**2**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**4**	**0**	**11**	0
4:45 PM	**0**	**0**	**1**	**1**	**0**	**0**	**2**	**1**	**0**	**0**	**4**	**0**	**0**	**0**	**5**	**0**	**14**	62
5:00 PM	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**1**	**0**	**0**	**1**	**0**	**0**	**2**	**6**	**0**	**14**	62
5:15 PM	**0**	**1**	**1**	**1**	**0**	**0**	**2**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**4**	**1**	**12**	**51**
5:30 PM	0	0	0	0	0	0	2	1	0	0	1	2	0	0	4	0	10	50
5:45 PM	0	0	1	0	0	0	0	0	0	0	3	0	0	0	3	0	7	43
Count Total	0	2	19	2	0	0	12	9	0	1	20	3	0	4	32	1	105	0
Peak Hour	**0**	**1**	**7**	**2**	**0**	**0**	**8**	**3**	**0**	**1**	**7**	**0**	**0**	**2**	**19**	**1**	**51**	**0**

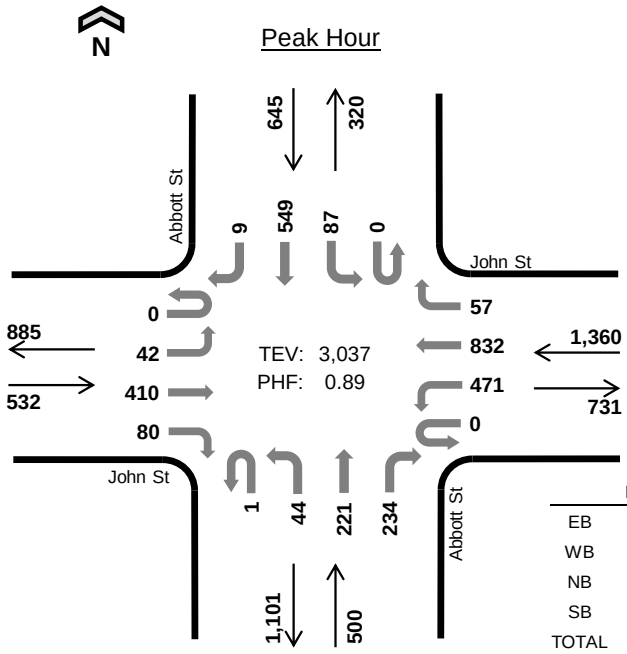
Two-Hour Count Summaries - Bikes

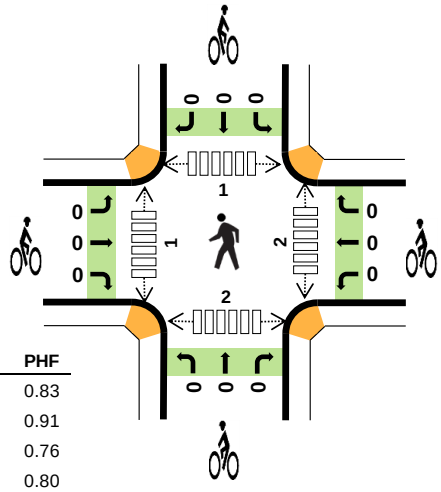
Interval Start	E Alisal St			E Alisal St			E Front St			E Front St			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	0
4:45 PM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	3
5:00 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	3
5:15 PM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**4**
5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	4
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	4
Count Total	0	3	2	0	1	0	0	0	0	1	0	0	7	0
Peak Hour	**0**	**2**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**

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

Abbott St
John St

Date: 11-21-2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM





	HV %:	PHF
EB	1.7%	0.83
WB	1.3%	0.91
NB	4.6%	0.76
SB	2.5%	0.80
TOTAL	2.1%	0.89

Two-Hour Count Summaries

Interval Start	John St Eastbound				John St Westbound				Abbott St Northbound				Abbott St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	2	74	8	0	80	73	11	0	6	31	38	0	11	54	0	388	0
7:15 AM	0	3	77	14	0	99	101	14	0	7	61	46	0	10	97	1	530	0
7:30 AM	**0**	**9**	**102**	**12**	**0**	**95**	**227**	**15**	**1**	**10**	**46**	**50**	**0**	**22**	**110**	**1**	**700**	0
7:45 AM	**0**	**12**	**117**	**32**	**0**	**121**	**238**	**14**	**0**	**13**	**54**	**55**	**0**	**19**	**179**	**3**	**857**	2,475
8:00 AM	**0**	**8**	**110**	**20**	**0**	**138**	**218**	**14**	**0**	**11**	**48**	**48**	**0**	**22**	**142**	**2**	**781**	2,868
8:15 AM	**0**	**13**	**81**	**16**	**0**	**117**	**149**	**14**	**0**	**10**	**73**	**81**	**0**	**24**	**118**	**3**	**699**	**3,037**
8:30 AM	0	8	74	16	0	108	175	20	0	22	73	59	0	16	98	0	669	3,006
8:45 AM	0	11	81	22	0	100	156	18	0	17	67	65	0	11	106	4	658	2,807
Count Total	0	66	716	140	0	858	1,337	120	1	96	453	442	0	135	904	14	5,282	0
Peak Hour All	**0**	**42**	**410**	**80**	**0**	**471**	**832**	**57**	**1**	**44**	**221**	**234**	**0**	**87**	**549**	**9**	**3,037**	**0**
Peak Hour HV	**0**	**1**	**5**	**3**	**0**	**7**	**7**	**3**	**0**	**2**	**13**	**8**	**0**	**6**	**10**	**0**	**65**	**0**
Peak Hour HV%	**-**	**2%**	**1%**	**4%**	**-**	**1%**	**1%**	**5%**	**0%**	**5%**	**6%**	**3%**	**-**	**7%**	**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	3	6	5	1	*15*	0	0	0	0	*0*	0	0	0	2	*2*
7:15 AM	4	4	8	6	*22*	0	0	0	0	*0*	0	0	0	1	*1*
7:30 AM	**2**	**1**	**6**	**6**	***15***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**1**	*1*
7:45 AM	**1**	**6**	**5**	**3**	***15***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	*1*
8:00 AM	**5**	**8**	**5**	**3**	***21***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**1**	*3*
8:15 AM	**1**	**2**	**7**	**4**	***14***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	***1***
8:30 AM	1	9	10	4	*24*	0	1	0	0	*1*	1	0	1	0	*2*
8:45 AM	3	5	11	7	*26*	0	0	2	0	*2*	0	0	0	1	*1*
Count Total	20	41	57	34	*152*	0	1	2	0	*3*	3	1	2	6	*12*
Peak Hour	**9**	**17**	**23**	**16**	***65***	**0**	**0**	**0**	**0**	***0***	**2**	**1**	**1**	**2**	***6***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	John St Eastbound				John St Westbound				Abbott St Northbound				Abbott St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	1	1	0	2	2	2	0	0	3	2	0	0	1	0	15	0
7:15 AM	0	0	3	1	0	1	2	1	0	0	6	2	0	0	6	0	22	0
7:30 AM	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**4**	**2**	**0**	**3**	**3**	**0**	**15**	0
7:45 AM	**0**	**0**	**0**	**1**	**0**	**2**	**3**	**1**	**0**	**0**	**2**	**3**	**0**	**2**	**1**	**0**	**15**	67
8:00 AM	**0**	**1**	**2**	**2**	**0**	**4**	**3**	**1**	**0**	**0**	**3**	**2**	**0**	**0**	**3**	**0**	**21**	73
8:15 AM	**0**	**0**	**1**	**0**	**0**	**1**	**1**	**0**	**0**	**2**	**4**	**1**	**0**	**1**	**3**	**0**	**14**	**65**
8:30 AM	0	0	1	0	0	6	2	1	0	0	7	3	0	2	2	0	24	74
8:45 AM	0	0	1	2	0	2	1	2	0	1	4	6	0	1	6	0	26	85
Count Total	0	2	11	7	0	18	14	9	0	3	33	21	0	9	25	0	152	0
Peak Hour	**0**	**1**	**5**	**3**	**0**	**7**	**7**	**3**	**0**	**2**	**13**	**8**	**0**	**6**	**10**	**0**	**65**	**0**

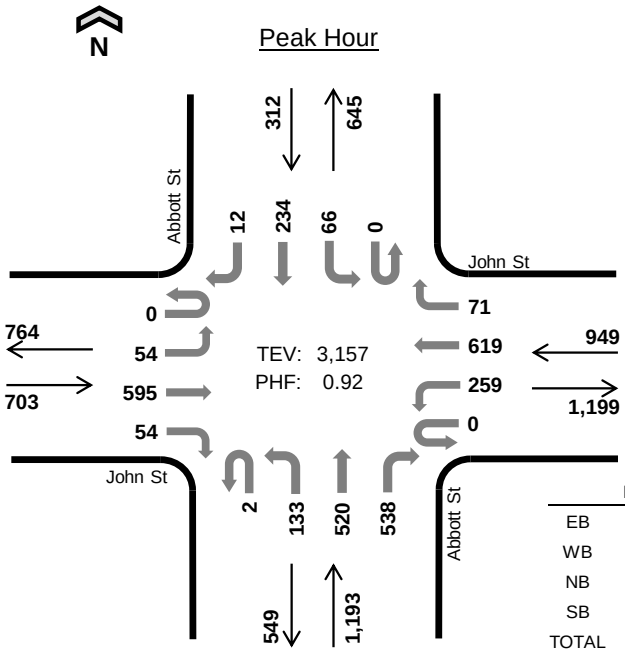
Two-Hour Count Summaries - Bikes

Interval Start	John St Eastbound			John St Westbound			Abbott St Northbound			Abbott St Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	1
8:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	2	3
Count Total	0	0	0	0	1	0	0	2	0	0	0	0	3	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

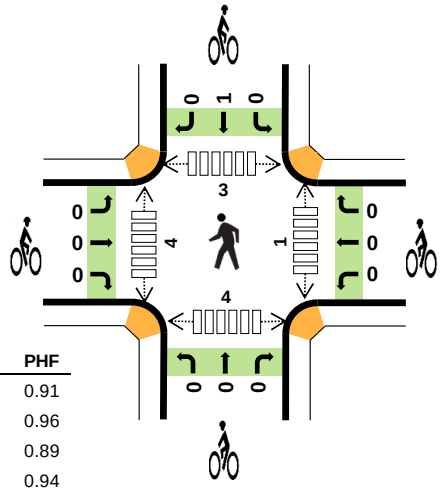
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Abbott St
John St

Date: 11-21-2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	1.0%	0.91
WB	1.9%	0.96
NB	2.1%	0.89
SB	5.4%	0.94
TOTAL	2.1%	0.92



Two-Hour Count Summaries

Interval Start	John St Eastbound				John St Westbound				Abbott St Northbound				Abbott St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**12**	**167**	**14**	**0**	**69**	**159**	**19**	**0**	**38**	**148**	**148**	**0**	**16**	**62**	**3**	**855**	0
4:15 PM	**0**	**9**	**139**	**12**	**0**	**75**	**132**	**24**	**0**	**28**	**92**	**125**	**0**	**12**	**63**	**1**	**712**	0
4:30 PM	**0**	**18**	**146**	**13**	**0**	**60**	**172**	**16**	**2**	**35**	**141**	**142**	**0**	**21**	**59**	**3**	**828**	0
4:45 PM	**0**	**15**	**143**	**15**	**0**	**55**	**156**	**12**	**0**	**32**	**139**	**123**	**0**	**17**	**50**	**5**	**762**	**3,157**
5:00 PM	0	24	165	15	0	55	165	10	0	35	154	156	0	17	43	10	849	3,151
5:15 PM	0	16	142	19	0	34	127	13	0	25	128	106	0	15	47	4	676	3,115
5:30 PM	0	11	133	12	0	41	149	15	0	9	89	87	0	12	47	2	607	2,894
5:45 PM	0	11	115	9	0	48	137	13	0	14	61	67	0	22	40	3	540	2,672
Count Total	0	116	1,150	109	0	437	1,197	122	2	216	952	954	0	132	411	31	5,829	0
Peak Hour All	**0**	**54**	**595**	**54**	**0**	**259**	**619**	**71**	**2**	**133**	**520**	**538**	**0**	**66**	**234**	**12**	**3,157**	**0**
Peak Hour HV	**0**	**1**	**4**	**2**	**0**	**8**	**9**	**1**	**1**	**1**	**13**	**10**	**0**	**2**	**15**	**0**	**67**	**0**
Peak Hour HV%	**-**	**2%**	**1%**	**4%**	**-**	**3%**	**1%**	**1%**	**50%**	**1%**	**3%**	**2%**	**-**	**3%**	**6%**	**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
4:00 PM	**0**	**6**	**4**	**1**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**1**	*2*
4:15 PM	**3**	**6**	**10**	**6**	***25***	**0**	**0**	**0**	**0**	***0***	**0**	**2**	**0**	**1**	*3*
4:30 PM	**3**	**3**	**5**	**3**	***14***	**0**	**0**	**0**	**1**	***1***	**1**	**2**	**1**	**1**	*5*
4:45 PM	**1**	**3**	**6**	**7**	***17***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**1**	***2***
5:00 PM	0	1	1	3	*5*	0	0	0	0	*0*	1	0	0	2	*3*
5:15 PM	2	2	6	6	*16*	0	0	0	0	*0*	0	0	0	4	*4*
5:30 PM	2	4	7	3	*16*	0	0	0	0	*0*	1	1	0	0	*2*
5:45 PM	2	5	4	4	*15*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	13	30	43	33	*119*	0	0	0	1	*1*	3	5	3	10	*21*
Peak Hour	**7**	**18**	**25**	**17**	***67***	**0**	**0**	**0**	**1**	***1***	**1**	**4**	**3**	**4**	***12***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	John St Eastbound				John St Westbound				Abbott St Northbound				Abbott St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**4**	**1**	**1**	**0**	**0**	**2**	**2**	**0**	**0**	**1**	**0**	**11**	0
4:15 PM	**0**	**0**	**2**	**1**	**0**	**1**	**5**	**0**	**0**	**1**	**6**	**3**	**0**	**1**	**5**	**0**	**25**	0
4:30 PM	**0**	**1**	**1**	**1**	**0**	**1**	**2**	**0**	**1**	**0**	**0**	**4**	**0**	**0**	**3**	**0**	**14**	0
4:45 PM	**0**	**0**	**1**	**0**	**0**	**2**	**1**	**0**	**0**	**0**	**5**	**1**	**0**	**1**	**6**	**0**	**17**	**67**
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	1	0	1	2	0	5	61
5:15 PM	0	0	1	1	0	2	0	0	0	0	2	4	0	0	6	0	16	52
5:30 PM	0	1	1	0	0	1	2	1	0	0	3	4	0	1	2	0	16	54
5:45 PM	0	0	2	0	0	2	2	1	0	0	2	2	0	0	4	0	15	52
Count Total	0	2	8	3	0	14	13	3	1	1	20	21	0	4	29	0	119	0
Peak Hour	**0**	**1**	**4**	**2**	**0**	**8**	**9**	**1**	**1**	**1**	**13**	**10**	**0**	**2**	**15**	**0**	**67**	**0**

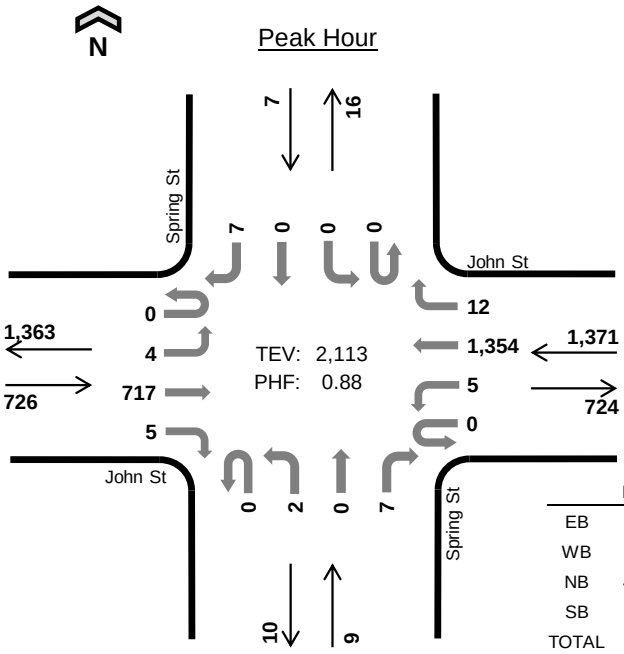
Two-Hour Count Summaries - Bikes

Interval Start	John St Eastbound			John St Westbound			Abbott St Northbound			Abbott St Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	1	0	1	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**

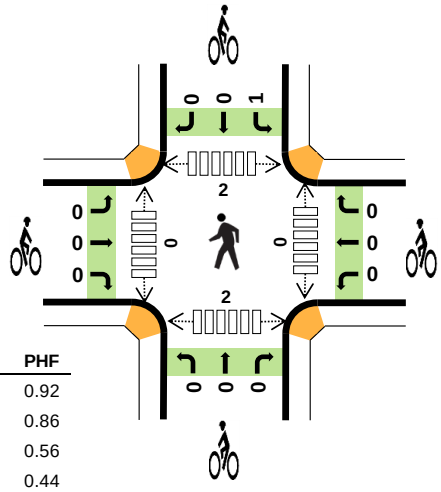
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Spring St
John St

Date: 11-21-2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM



	HV %:	PHF
EB	2.8%	0.92
WB	1.2%	0.86
NB	44.4%	0.56
SB	0.0%	0.44
TOTAL	1.9%	0.88



Two-Hour Count Summaries

Interval Start		John St Eastbound				John St Westbound				Spring St Northbound				Spring St Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	119	0	0	2	154	3	0	2	0	2	0	0	0	0	282	0
7:15 AM		0	0	133	3	0	2	223	1	0	2	0	4	0	0	0	1	369	0
7:30 AM		**0**	**0**	**170**	**1**	**0**	**2**	**325**	**2**	**0**	**1**	**0**	**3**	**0**	**0**	**0**	**1**	**505**	0
7:45 AM		**0**	**3**	**193**	**1**	**0**	**1**	**390**	**7**	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**598**	1,754
8:00 AM		**0**	**0**	**178**	**1**	**0**	**1**	**354**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**4**	**542**	2,014
8:15 AM		**0**	**1**	**176**	**2**	**0**	**1**	**285**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**468**	**2,113**
8:30 AM		0	1	149	0	0	2	294	7	0	1	0	5	0	0	0	0	459	2,067
8:45 AM		0	1	147	2	1	2	274	3	0	1	0	0	0	0	0	4	435	1,904
Count Total		0	6	1,265	10	1	13	2,299	26	0	8	0	18	0	0	0	12	3,658	0
Peak Hour	**All**	**0**	**4**	**717**	**5**	**0**	**5**	**1,354**	**12**	**0**	**2**	**0**	**7**	**0**	**0**	**0**	**7**	**2,113**	**0**
	HV	**0**	**0**	**18**	**2**	**0**	**0**	**17**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**41**	**0**
	HV%	**-**	**0%**	**3%**	**40%**	**-**	**0%**	**1%**	**0%**	**-**	**0%**	**-**	**57%**	**-**	**-**	**-**	**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	3	7	2	0	*12*	0	0	0	0	*0*	0	0	0	2	*2*
7:15 AM	5	4	4	0	*13*	0	0	0	0	*0*	0	0	0	1	*1*
7:30 AM	**7**	**1**	**2**	**0**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
7:45 AM	**5**	**6**	**1**	**0**	***12***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:00 AM	**4**	**8**	**1**	**0**	***13***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**1**	**2**	*3*
8:15 AM	**4**	**2**	**0**	**0**	***6***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	***1***
8:30 AM	5	10	3	0	*18*	0	1	0	1	*2*	0	0	2	0	*2*
8:45 AM	8	5	0	0	*13*	0	0	0	0	*0*	0	0	1	0	*1*
Count Total	41	43	13	0	*97*	0	1	0	2	*3*	0	0	5	5	*10*
Peak Hour	**20**	**17**	**4**	**0**	***41***	**0**	**0**	**0**	**1**	***1***	**0**	**0**	**2**	**2**	***4***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	John St Eastbound				John St Westbound				Spring St Northbound				Spring St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	3	0	0	1	6	0	0	0	0	2	0	0	0	0	12	0
7:15 AM	0	0	5	0	0	1	3	0	0	0	0	4	0	0	0	0	13	0
7:30 AM	**0**	**0**	**7**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**10**	0
7:45 AM	**0**	**0**	**4**	**1**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**12**	47
8:00 AM	**0**	**0**	**4**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**13**	48
8:15 AM	**0**	**0**	**3**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**41**
8:30 AM	0	0	5	0	0	1	9	0	0	0	0	3	0	0	0	0	18	49
8:45 AM	0	0	7	1	0	0	5	0	0	0	0	0	0	0	0	0	13	50
Count Total	0	0	38	3	0	3	40	0	0	0	0	13	0	0	0	0	97	0
Peak Hour	**0**	**0**	**18**	**2**	**0**	**0**	**17**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**41**	**0**

Two-Hour Count Summaries - Bikes

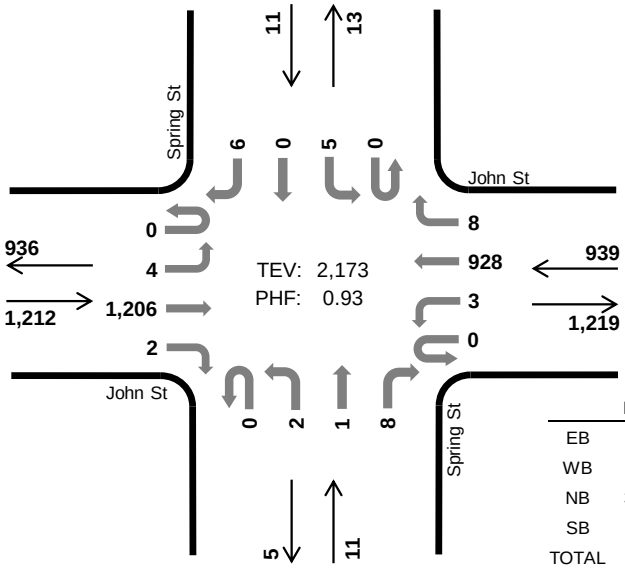
Interval Start	John St Eastbound			John St Westbound			Spring St Northbound			Spring St Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	1
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
8:30 AM	0	0	0	0	1	0	0	0	0	1	0	0	2	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Count Total	0	0	0	0	1	0	0	0	0	2	0	0	3	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**

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

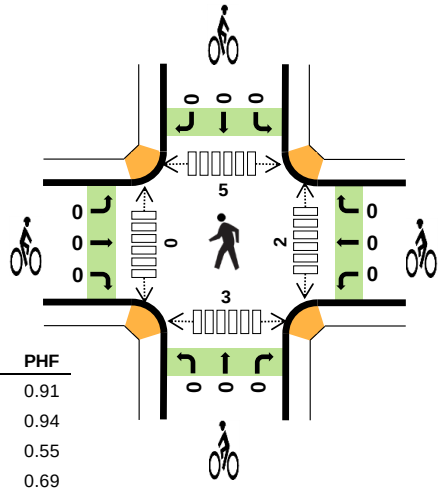
Spring St
John St

Date: 11-21-2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM

Peak Hour



	HV %:	PHF
EB	1.3%	0.91
WB	1.7%	0.94
NB	36.4%	0.55
SB	9.1%	0.69
TOTAL	1.7%	0.93



Two-Hour Count Summaries

Interval Start		John St Eastbound				John St Westbound				Spring St Northbound				Spring St Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		**0**	**1**	**332**	**0**	**0**	**1**	**246**	**1**	**0**	**0**	**0**	**3**	**0**	**2**	**0**	**1**	**587**	0
4:15 PM		**0**	**0**	**274**	**0**	**0**	**1**	**211**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**489**	0
4:30 PM		**0**	**3**	**307**	**1**	**0**	**1**	**246**	**3**	**0**	**0**	**0**	**2**	**0**	**2**	**0**	**2**	**567**	0
4:45 PM		**0**	**0**	**293**	**1**	**0**	**0**	**225**	**4**	**0**	**2**	**1**	**2**	**0**	**1**	**0**	**1**	**530**	**2,173**
5:00 PM		0	5	313	0	0	0	231	1	0	0	0	0	0	2	0	3	555	2,141
5:15 PM		0	2	287	0	0	1	179	3	0	0	0	1	0	1	0	4	478	2,130
5:30 PM		0	0	234	0	0	0	204	2	0	0	0	1	0	1	0	1	443	2,006
5:45 PM		0	0	205	0	0	2	192	2	0	0	0	1	0	0	0	0	402	1,878
Count Total		0	11	2,245	2	0	6	1,734	16	0	2	1	11	0	9	0	14	4,051	0
Peak Hour	**All**	**0**	**4**	**1,206**	**2**	**0**	**3**	**928**	**8**	**0**	**2**	**1**	**8**	**0**	**5**	**0**	**6**	**2,173**	**0**
	HV	**0**	**0**	**14**	**2**	**0**	**0**	**16**	**0**	**0**	**0**	**1**	**3**	**0**	**1**	**0**	**0**	**37**	**0**
	HV%	**-**	**0%**	**1%**	**100%**	**-**	**0%**	**2%**	**0%**	**-**	**0%**	**100%**	**38%**	**-**	**20%**	**-**	**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
4:00 PM	**2**	**4**	**1**	**0**	***7***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**1**	*3*
4:15 PM	**6**	**6**	**0**	**0**	***12***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**1**	*2*
4:30 PM	**5**	**3**	**0**	**1**	***9***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**2**	**0**	*2*
4:45 PM	**3**	**3**	**3**	**0**	***9***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**2**	**1**	***3***
5:00 PM	2	3	0	0	*5*	0	0	0	0	*0*	0	0	1	2	*3*
5:15 PM	5	3	0	0	*8*	0	0	0	0	*0*	0	0	1	2	*3*
5:30 PM	6	4	0	0	*10*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	4	7	0	0	*11*	0	0	0	0	*0*	0	0	1	0	*1*
Count Total	33	33	4	1	*71*	0	0	0	0	*0*	2	0	8	7	*17*
Peak Hour	**16**	**16**	**4**	**1**	***37***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**5**	**3**	***10***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	John St Eastbound				John St Westbound				Spring St Northbound				Spring St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**2**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**7**	0
4:15 PM	**0**	**0**	**6**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**12**	0
4:30 PM	**0**	**0**	**4**	**1**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**9**	0
4:45 PM	**0**	**0**	**2**	**1**	**0**	**0**	**3**	**0**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**9**	**37**
5:00 PM	0	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	5	35
5:15 PM	0	0	5	0	0	1	2	0	0	0	0	0	0	0	0	0	8	31
5:30 PM	0	0	6	0	0	0	4	0	0	0	0	0	0	0	0	0	10	32
5:45 PM	0	0	4	0	0	2	5	0	0	0	0	0	0	0	0	0	11	34
Count Total	0	0	31	2	0	3	30	0	0	0	1	3	0	1	0	0	71	0
Peak Hour	**0**	**0**	**14**	**2**	**0**	**0**	**16**	**0**	**0**	**0**	**1**	**3**	**0**	**1**	**0**	**0**	**37**	**0**

Two-Hour Count Summaries - Bikes

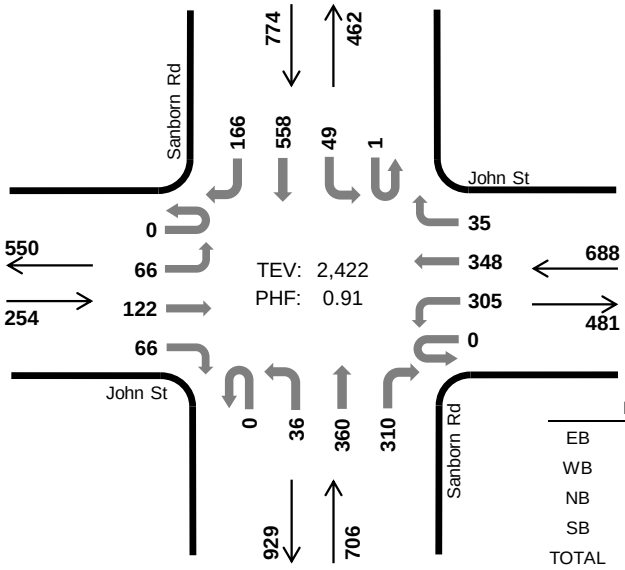
Interval Start	John St Eastbound			John St Westbound			Spring St Northbound			Spring St Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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

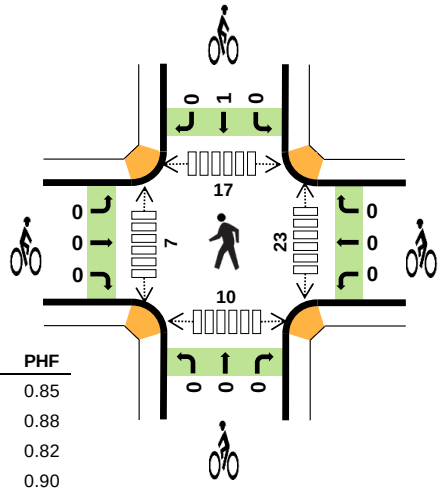
Sanborn Rd
John St

Peak Hour

Date: 11-21-2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM



	HV %:	PHF
EB	2.8%	0.85
WB	1.5%	0.88
NB	3.0%	0.82
SB	1.4%	0.90
TOTAL	2.0%	0.91



Two-Hour Count Summaries

Interval Start		John St Eastbound				John St Westbound				Sanborn Rd Northbound				Sanborn Rd Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	8	21	9	0	58	41	2	0	4	47	45	0	5	124	21	385	0
7:15 AM		0	11	34	8	0	84	62	1	0	15	60	70	0	11	115	24	495	0
7:30 AM		**0**	**10**	**31**	**16**	**0**	**75**	**101**	**4**	**0**	**14**	**93**	**107**	**1**	**21**	**154**	**39**	**666**	0
7:45 AM		**0**	**24**	**39**	**12**	**0**	**85**	**91**	**19**	**0**	**8**	**93**	**82**	**0**	**14**	**153**	**41**	**661**	2,207
8:00 AM		**0**	**14**	**28**	**22**	**0**	**72**	**67**	**9**	**0**	**6**	**89**	**71**	**0**	**11**	**138**	**33**	**560**	2,382
8:15 AM		**0**	**18**	**24**	**16**	**0**	**73**	**89**	**3**	**0**	**8**	**85**	**50**	**0**	**3**	**113**	**53**	**535**	**2,422**
8:30 AM		0	15	20	18	0	76	77	4	0	21	97	45	1	1	110	38	523	2,279
8:45 AM		0	11	22	13	0	51	55	4	0	9	78	51	0	2	100	35	431	2,049
Count Total		0	111	219	114	0	574	583	46	0	85	642	521	2	68	1,007	284	4,256	0
Peak Hour	**All**	**0**	**66**	**122**	**66**	**0**	**305**	**348**	**35**	**0**	**36**	**360**	**310**	**1**	**49**	**558**	**166**	**2,422**	**0**
	HV	**0**	**2**	**4**	**1**	**0**	**3**	**6**	**1**	**0**	**0**	**16**	**5**	**0**	**3**	**7**	**1**	**49**	**0**
	HV%	**-**	**3%**	**3%**	**2%**	**-**	**1%**	**2%**	**3%**	**-**	**0%**	**4%**	**2%**	**0%**	**6%**	**1%**	**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	3	2	5	10	*20*	0	0	0	0	*0*	6	0	3	3	*12*
7:15 AM	0	5	7	7	*19*	0	0	0	1	*1*	1	3	0	3	*7*
7:30 AM	**4**	**3**	**5**	**4**	***16***	**0**	**0**	**0**	**0**	***0***	**9**	**2**	**14**	**5**	*30*
7:45 AM	**0**	**4**	**5**	**1**	***10***	**0**	**0**	**0**	**1**	***1***	**1**	**2**	**1**	**1**	*5*
8:00 AM	**2**	**1**	**5**	**5**	***13***	**0**	**0**	**0**	**0**	***0***	**7**	**1**	**1**	**0**	*9*
8:15 AM	**1**	**2**	**6**	**1**	***10***	**0**	**0**	**0**	**0**	***0***	**6**	**2**	**1**	**4**	***13***
8:30 AM	0	4	3	4	*11*	0	0	0	0	*0*	5	2	2	4	*13*
8:45 AM	2	1	4	0	*7*	0	0	0	0	*0*	3	1	0	1	*5*
Count Total	12	22	40	32	*106*	0	0	0	2	*2*	38	13	22	21	*94*
Peak Hour	**7**	**10**	**21**	**11**	***49***	**0**	**0**	**0**	**1**	***1***	**23**	**7**	**17**	**10**	***57***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	John St Eastbound				John St Westbound				Sanborn Rd Northbound				Sanborn Rd Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	2	0	0	1	1	0	0	0	3	2	0	1	7	2	20	0
7:15 AM	0	0	0	0	0	2	3	0	0	2	2	3	0	1	6	0	19	0
7:30 AM	**0**	**2**	**2**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**5**	**0**	**0**	**2**	**1**	**1**	**16**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**1**	**0**	**0**	**5**	**0**	**0**	**0**	**1**	**0**	**10**	65
8:00 AM	**0**	**0**	**1**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**4**	**1**	**0**	**1**	**4**	**0**	**13**	58
8:15 AM	**0**	**0**	**1**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**2**	**4**	**0**	**0**	**1**	**0**	**10**	**49**
8:30 AM	0	0	0	0	0	1	2	1	0	1	2	0	0	0	4	0	11	44
8:45 AM	0	0	1	1	0	1	0	0	0	0	2	2	0	0	0	0	7	41
Count Total	0	3	7	2	0	8	12	2	0	3	25	12	0	5	24	3	106	0
Peak Hour	**0**	**2**	**4**	**1**	**0**	**3**	**6**	**1**	**0**	**0**	**16**	**5**	**0**	**3**	**7**	**1**	**49**	**0**

Two-Hour Count Summaries - Bikes

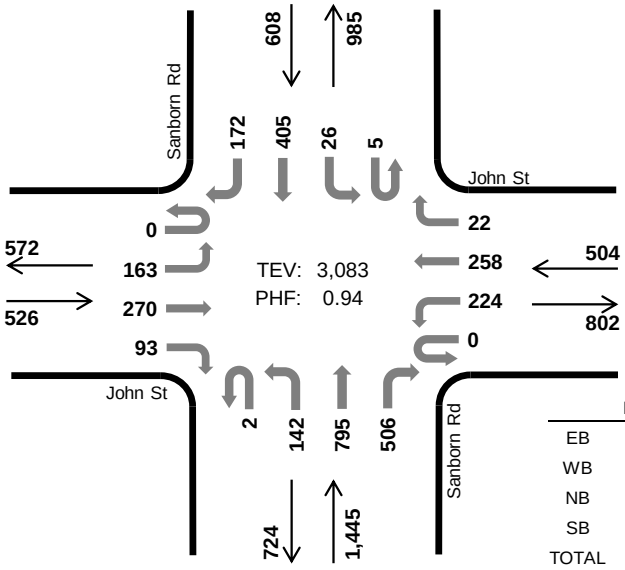
Interval Start	John St Eastbound			John St Westbound			Sanborn Rd Northbound			Sanborn Rd Southbound			15-min Total	Rolling One Hour
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	2
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	2
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	2	0	2	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**

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

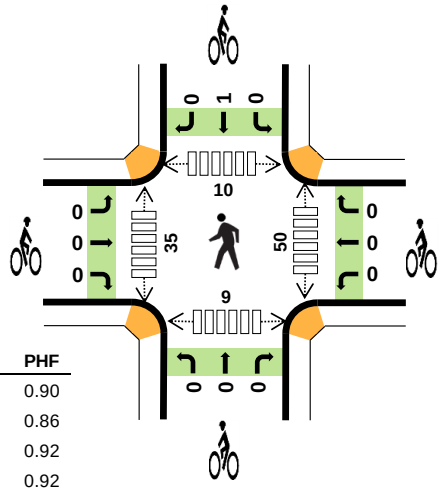
Sanborn Rd
John St

Peak Hour

Date: 11-21-2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	0.4%	0.90
WB	0.8%	0.86
NB	0.9%	0.92
SB	0.8%	0.92
TOTAL	0.8%	0.94



Two-Hour Count Summaries

Interval Start		John St Eastbound				John St Westbound				Sanborn Rd Northbound				Sanborn Rd Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	32	79	24	0	68	82	11	0	24	174	127	0	4	119	51	795	0
4:15 PM		0	30	63	18	0	51	67	1	0	30	153	115	0	12	85	37	662	0
4:30 PM		**0**	**36**	**52**	**24**	**0**	**56**	**68**	**8**	**1**	**31**	**177**	**124**	**1**	**4**	**93**	**47**	**722**	0
4:45 PM		**0**	**48**	**57**	**23**	**0**	**63**	**53**	**2**	**0**	**44**	**227**	**121**	**1**	**4**	**112**	**39**	**794**	2,973
5:00 PM		**0**	**43**	**71**	**26**	**0**	**56**	**84**	**6**	**0**	**35**	**201**	**136**	**2**	**10**	**115**	**39**	**824**	3,002
5:15 PM		**0**	**36**	**90**	**20**	**0**	**49**	**53**	**6**	**1**	**32**	**190**	**125**	**1**	**8**	**85**	**47**	**743**	**3,083**
5:30 PM		0	38	56	24	0	51	61	4	1	20	176	99	0	6	90	39	665	3,026
5:45 PM		0	45	58	23	1	52	75	9	0	24	166	131	0	2	89	50	725	2,957
Count Total		0	308	526	182	1	446	543	47	3	240	1,464	978	5	50	788	349	5,930	0
Peak Hour	**All**	**0**	**163**	**270**	**93**	**0**	**224**	**258**	**22**	**2**	**142**	**795**	**506**	**5**	**26**	**405**	**172**	**3,083**	**0**
	HV	**0**	**0**	**1**	**1**	**0**	**1**	**3**	**0**	**0**	**5**	**3**	**5**	**0**	**0**	**4**	**1**	**24**	**0**
	HV%	**-**	**0%**	**0%**	**1%**	**-**	**0%**	**1%**	**0%**	**0%**	**4%**	**0%**	**1%**	**0%**	**0%**	**1%**	**1%**	**1%**	**0**

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

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	1	0	2	1	*4*	0	0	0	0	*0*	4	8	6	0	*18*
4:15 PM	2	2	3	0	*7*	0	0	0	0	*0*	5	10	3	2	*20*
4:30 PM	**2**	**2**	**4**	**1**	***9***	**0**	**0**	**0**	**0**	***0***	**19**	**8**	**7**	**9**	*43*
4:45 PM	**0**	**1**	**6**	**1**	***8***	**0**	**0**	**0**	**0**	***0***	**10**	**5**	**2**	**0**	*17*
5:00 PM	**0**	**0**	**2**	**2**	***4***	**0**	**0**	**0**	**1**	***1***	**9**	**8**	**0**	**0**	*17*
5:15 PM	**0**	**1**	**1**	**1**	***3***	**0**	**0**	**0**	**0**	***0***	**12**	**14**	**1**	**0**	***27***
5:30 PM	1	2	1	1	*5*	0	0	0	0	*0*	12	9	1	2	*24*
5:45 PM	1	1	3	2	*7*	0	0	0	0	*0*	17	12	0	7	*36*
Count Total	7	9	22	9	*47*	0	0	0	1	*1*	88	74	20	20	*202*
Peak Hour	**2**	**4**	**13**	**5**	***24***	**0**	**0**	**0**	**1**	***1***	**50**	**35**	**10**	**9**	***104***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	John St				John St				Sanborn Rd				Sanborn 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	1	0	0	0	0	0	0	0	1	1	0	0	1	0	4	0
4:15 PM	0	1	0	1	0	0	2	0	0	0	1	2	0	0	0	0	7	0
4:30 PM	**0**	**0**	**1**	**1**	**0**	**0**	**2**	**0**	**0**	**1**	**1**	**2**	**0**	**0**	**1**	**0**	**9**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**2**	**2**	**0**	**0**	**1**	**0**	**8**	28
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**1**	**1**	**4**	28
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**24**
5:30 PM	0	0	1	0	0	2	0	0	0	0	0	1	0	0	0	1	5	20
5:45 PM	0	0	1	0	0	1	0	0	0	0	2	1	0	0	2	0	7	19
Count Total	0	1	4	2	0	4	5	0	0	5	7	10	0	0	7	2	47	0
Peak Hour	**0**	**0**	**1**	**1**	**0**	**1**	**3**	**0**	**0**	**5**	**3**	**5**	**0**	**0**	**4**	**1**	**24**	**0**

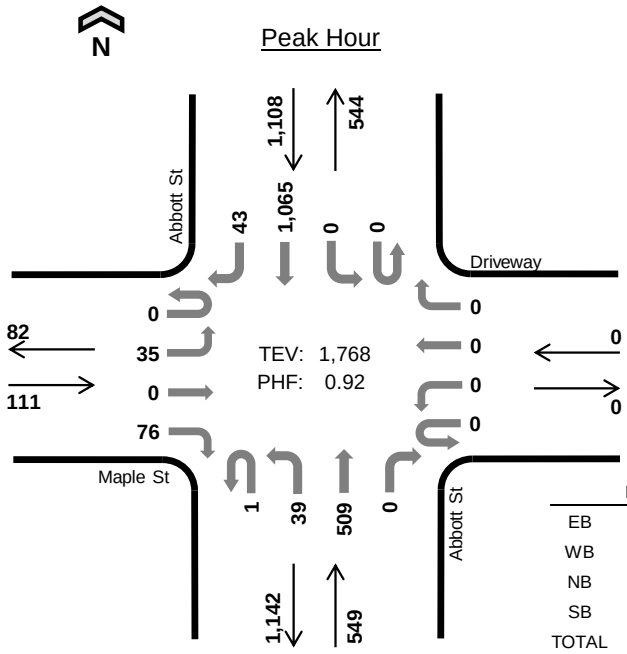
Two-Hour Count Summaries - Bikes

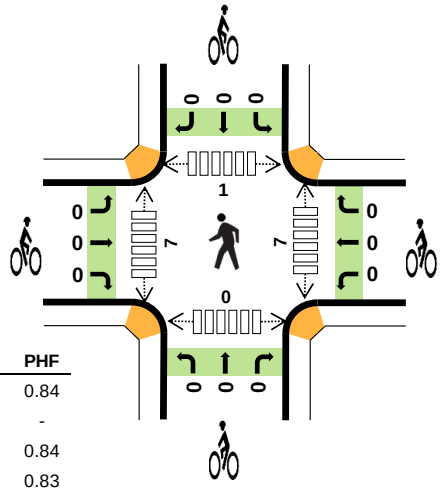
Interval Start	John St			John St			Sanborn Rd			Sanborn Rd			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	1
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	0	0	0	0	1	0	1	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**

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

Abbott St
Maple St

Date: 11-21-2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM





	HV %:	PHF
EB	1.8%	0.84
WB	-	-
NB	5.1%	0.84
SB	2.3%	0.83
TOTAL	3.1%	0.92

Two-Hour Count Summaries

Interval Start		Maple St Eastbound				Driveway Westbound				Abbott St Northbound				Abbott St Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	8	0	11	0	0	0	0	0	3	72	0	0	0	134	17	245	0
7:15 AM		0	14	0	13	0	0	0	0	0	3	93	0	0	0	190	13	326	0
7:30 AM		0	9	0	15	0	0	0	0	0	4	100	0	0	0	204	14	346	0
7:45 AM		**0**	**7**	**0**	**18**	**0**	**0**	**0**	**0**	**1**	**6**	**114**	**0**	**0**	**0**	**321**	**12**	**479**	1,396
8:00 AM		**0**	**9**	**0**	**23**	**0**	**0**	**0**	**0**	**0**	**12**	**103**	**0**	**0**	**0**	**285**	**10**	**442**	1,593
8:15 AM		**0**	**11**	**0**	**22**	**0**	**0**	**0**	**0**	**0**	**12**	**151**	**0**	**0**	**0**	**237**	**14**	**447**	1,714
8:30 AM		**0**	**8**	**0**	**13**	**0**	**0**	**0**	**0**	**0**	**9**	**141**	**0**	**0**	**0**	**222**	**7**	**400**	**1,768**
8:45 AM		0	7	0	13	0	0	0	0	1	5	148	0	0	1	209	9	393	1,682
Count Total		0	73	0	128	0	0	0	0	2	54	922	0	0	1	1,802	96	3,078	0
Peak Hour	**All**	**0**	**35**	**0**	**76**	**0**	**0**	**0**	**0**	**1**	**39**	**509**	**0**	**0**	**0**	**1,065**	**43**	**1,768**	**0**
	HV	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**27**	**0**	**0**	**0**	**23**	**2**	**55**	**0**
	HV%	**-**	**0%**	**-**	**3%**	**-**	**-**	**-**	**-**	**0%**	**3%**	**5%**	**-**	**-**	**-**	**2%**	**5%**	**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	4	*9*	0	0	0	0	*0*	0	1	0	0	*1*
7:15 AM	0	0	8	8	*16*	0	0	0	0	*0*	1	3	1	0	*5*
7:30 AM	1	0	6	3	*10*	0	0	0	0	*0*	0	2	0	0	*2*
7:45 AM	**0**	**0**	**5**	**3**	***8***	**0**	**0**	**0**	**0**	***0***	**1**	**2**	**0**	**0**	*3*
8:00 AM	**1**	**0**	**7**	**10**	***18***	**0**	**0**	**0**	**0**	***0***	**4**	**2**	**0**	**0**	*6*
8:15 AM	**1**	**0**	**6**	**4**	***11***	**0**	**0**	**0**	**0**	***0***	**1**	**1**	**1**	**0**	*3*
8:30 AM	**0**	**0**	**10**	**8**	***18***	**0**	**0**	**0**	**0**	***0***	**1**	**2**	**0**	**0**	***3***
8:45 AM	2	0	10	11	*23*	0	0	1	0	*1*	2	3	0	0	*5*
Count Total	5	0	57	51	*113*	0	0	1	0	*1*	10	16	2	0	*28*
Peak Hour	**2**	**0**	**28**	**25**	***55***	**0**	**0**	**0**	**0**	***0***	**7**	**7**	**1**	**0**	***15***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Maple St				Driveway				Abbott St				Abbott St				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	2	9	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	6	2	16	0
7:30 AM	0	1	0	0	0	0	0	0	0	1	5	0	0	0	3	0	10	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**2**	**1**	**8**	43
8:00 AM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**9**	**1**	**18**	52
8:15 AM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**5**	**0**	**0**	**0**	**4**	**0**	**11**	47
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**8**	**0**	**18**	**55**
8:45 AM	0	1	0	1	0	0	0	0	0	0	10	0	0	1	10	0	23	70
Count Total	0	2	0	3	0	0	0	0	0	2	55	0	0	1	44	6	113	0
Peak Hour	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**27**	**0**	**0**	**0**	**23**	**2**	**55**	**0**

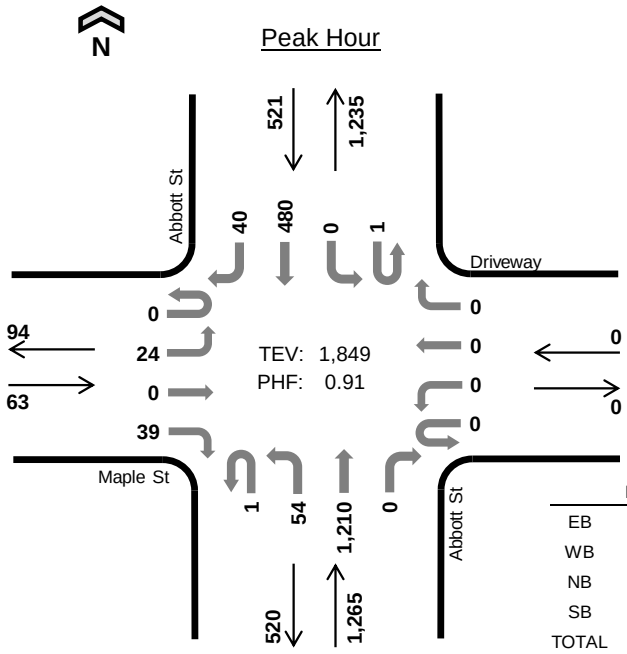
Two-Hour Count Summaries - Bikes

Interval Start	Maple St			Driveway			Abbott St			Abbott St			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	1
Count Total	0	0	0	0	0	0	0	1	0	0	0	0	1	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

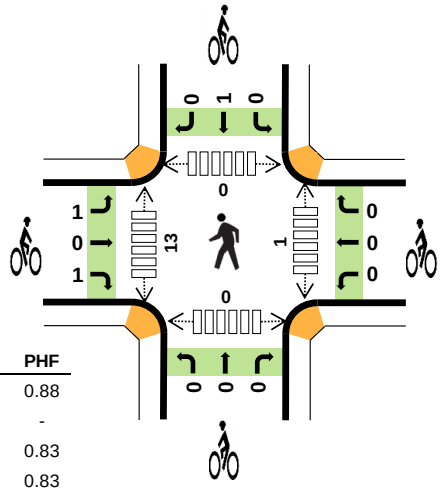
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Abbott St
Maple St

Date: 11-21-2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	1.6%	0.88
WB	-	-
NB	1.7%	0.83
SB	4.6%	0.83
TOTAL	2.5%	0.91



Two-Hour Count Summaries

Interval Start	Maple St Eastbound				Driveway Westbound				Abbott St Northbound				Abbott St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	5	0	8	0	0	0	0	0	10	336	0	0	0	135	9	503	0
4:15 PM	**0**	**5**	**0**	**9**	**0**	**0**	**0**	**0**	**0**	**4**	**249**	**0**	**0**	**0**	**149**	**8**	**424**	0
4:30 PM	**0**	**9**	**0**	**9**	**0**	**0**	**0**	**0**	**1**	**15**	**322**	**0**	**1**	**0**	**123**	**11**	**491**	0
4:45 PM	**0**	**8**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**15**	**279**	**0**	**0**	**0**	**110**	**9**	**427**	1,845
5:00 PM	**0**	**2**	**0**	**15**	**0**	**0**	**0**	**0**	**0**	**20**	**360**	**0**	**0**	**0**	**98**	**12**	**507**	**1,849**
5:15 PM	0	5	0	7	0	0	0	1	0	14	231	0	0	1	99	5	363	1,788
5:30 PM	0	3	0	5	0	0	0	0	0	9	186	0	0	0	91	9	303	1,600
5:45 PM	0	4	0	4	0	0	0	0	0	6	132	0	0	0	83	7	236	1,409
Count Total	0	41	0	63	0	0	0	1	1	93	2,095	0	1	1	888	70	3,254	0
Peak Hour All	**0**	**24**	**0**	**39**	**0**	**0**	**0**	**0**	**1**	**54**	**1,210**	**0**	**1**	**0**	**480**	**40**	**1,849**	**0**
Peak Hour HV	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**22**	**0**	**0**	**0**	**22**	**2**	**47**	**0**
Peak Hour HV%	**-**	**0%**	**-**	**3%**	**-**	**-**	**-**	**-**	**0%**	**0%**	**2%**	**-**	**0%**	**-**	**5%**	**5%**	**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
4:00 PM	0	0	4	5	*9*	0	0	0	0	*0*	1	3	2	0	*6*
4:15 PM	**0**	**0**	**10**	**7**	***17***	**1**	**0**	**0**	**0**	***1***	**0**	**4**	**0**	**0**	*4*
4:30 PM	**0**	**0**	**6**	**6**	***12***	**1**	**0**	**0**	**1**	***2***	**0**	**2**	**0**	**0**	*2*
4:45 PM	**1**	**0**	**5**	**8**	***14***	**0**	**0**	**0**	**0**	***0***	**0**	**4**	**0**	**0**	*4*
5:00 PM	**0**	**0**	**1**	**3**	***4***	**0**	**0**	**0**	**0**	***0***	**1**	**3**	**0**	**0**	***4***
5:15 PM	0	0	6	10	*16*	0	0	0	0	*0*	0	1	0	0	*1*
5:30 PM	0	0	7	3	*10*	0	0	0	0	*0*	1	4	0	0	*5*
5:45 PM	1	0	4	5	*10*	0	0	0	0	*0*	1	2	0	0	*3*
Count Total	2	0	43	47	*92*	2	0	0	1	*3*	4	23	2	0	*29*
Peak Hour	**1**	**0**	**22**	**24**	***47***	**2**	**0**	**0**	**1**	***3***	**1**	**13**	**0**	**0**	***14***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Maple St				Driveway				Abbott St				Abbott St				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	4	0	0	0	5	0	9	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**7**	**0**	**17**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**5**	**1**	**12**	0
4:45 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**7**	**1**	**14**	52
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**3**	**0**	**4**	**47**
5:15 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	10	0	16	46
5:30 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	3	0	10	44
5:45 PM	0	0	0	1	0	0	0	0	0	0	4	0	0	0	5	0	10	40
Count Total	0	0	0	2	0	0	0	0	0	0	43	0	0	0	45	2	92	0
Peak Hour	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**22**	**0**	**0**	**0**	**22**	**2**	**47**	**0**

Two-Hour Count Summaries - Bikes

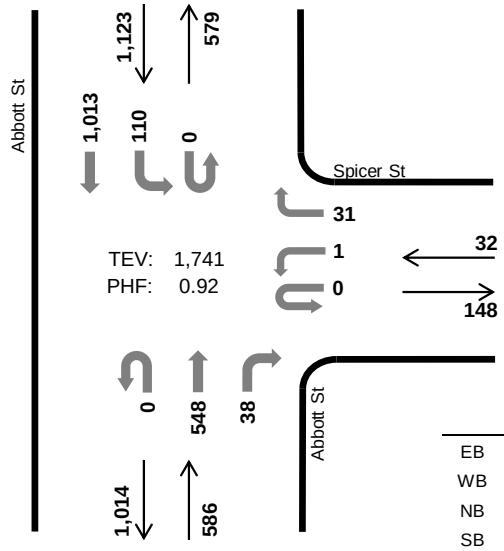
Interval Start	Maple St			Driveway			Abbott St			Abbott St			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	0
4:30 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	3
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	1	0	1	0	0	0	0	0	0	0	1	0	3	0
Peak Hour	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**0**

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

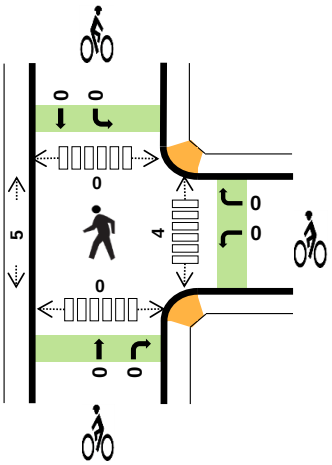
Abbott St
Spicer St

Date: 11-21-2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM

Peak Hour



	HV %:	PHF
EB	-	-
WB	0.0%	0.80
NB	6.7%	0.83
SB	2.2%	0.84
TOTAL	3.7%	0.92



Two-Hour Count Summaries

Interval Start		n/a Eastbound				Spicer St Westbound				Abbott St Northbound				Abbott St Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	0	0	0	1	0	7	0	0	58	7	0	23	119	0	215	0
7:15 AM		0	0	0	0	0	0	0	7	0	0	79	8	0	22	172	0	288	0
7:30 AM		0	0	0	0	0	0	0	10	0	0	97	8	0	33	197	0	345	0
7:45 AM		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**125**	**9**	**0**	**41**	**293**	**0**	**472**	1,320
8:00 AM		**0**	**0**	**0**	**0**	**0**	**1**	**0**	**9**	**0**	**0**	**109**	**11**	**0**	**28**	**273**	**0**	**431**	1,536
8:15 AM		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**164**	**12**	**0**	**15**	**235**	**0**	**434**	1,682
8:30 AM		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**150**	**6**	**0**	**26**	**212**	**0**	**404**	**1,741**
8:45 AM		0	0	0	0	0	3	0	10	0	0	144	3	1	13	208	0	382	1,651
Count Total		0	0	0	0	0	5	0	65	0	0	926	64	1	201	1,709	0	2,971	0
Peak Hour	**All**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**31**	**0**	**0**	**548**	**38**	**0**	**110**	**1,013**	**0**	**1,741**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**29**	**10**	**0**	**3**	**22**	**0**	**64**	**0**
	HV%	**-**	**-**	**-**	**-**	**-**	**0%**	**-**	**0%**	**-**	**-**	**5%**	**26%**	**-**	**3%**	**2%**	**-**	**4%**	**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	2	3	2	*7*	0	0	0	0	*0*	1	0	1	1	*3*
7:15 AM	0	2	8	8	*18*	0	0	0	0	*0*	1	0	0	0	*1*
7:30 AM	0	0	10	3	*13*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	**0**	**0**	**7**	**3**	***10***	**0**	**0**	**0**	**0**	***0***	**1**	**1**	**0**	**0**	*2*
8:00 AM	**0**	**0**	**10**	**7**	***17***	**0**	**0**	**0**	**0**	***0***	**2**	**1**	**0**	**0**	*3*
8:15 AM	**0**	**0**	**8**	**8**	***16***	**0**	**0**	**0**	**0**	***0***	**1**	**1**	**0**	**0**	*2*
8:30 AM	**0**	**0**	**14**	**7**	***21***	**0**	**0**	**0**	**0**	***0***	**0**	**2**	**0**	**0**	***2***
8:45 AM	0	1	10	12	*23*	0	0	1	0	*1*	1	3	0	0	*4*
Count Total	0	5	70	50	*125*	0	0	1	0	*1*	7	8	1	1	*17*
Peak Hr	**0**	**0**	**39**	**25**	***64***	**0**	**0**	**0**	**0**	***0***	**4**	**5**	**0**	**0**	***9***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	n/a				Spicer St				Abbott St				Abbott St				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	2	0	0	2	1	0	0	2	0	7	0
7:15 AM	0	0	0	0	0	0	0	2	0	0	5	3	0	1	7	0	18	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	6	4	0	0	3	0	13	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**2**	**0**	**1**	**2**	**0**	**10**	48
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**3**	**0**	**2**	**5**	**0**	**17**	58
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**2**	**0**	**0**	**8**	**0**	**16**	56
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**3**	**0**	**0**	**7**	**0**	**21**	**64**
8:45 AM	0	0	0	0	0	0	0	1	0	0	9	1	1	0	11	0	23	77
Count Total	0	0	0	0	0	0	0	5	0	0	51	19	1	4	45	0	125	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**29**	**10**	**0**	**3**	**22**	**0**	**64**	**0**

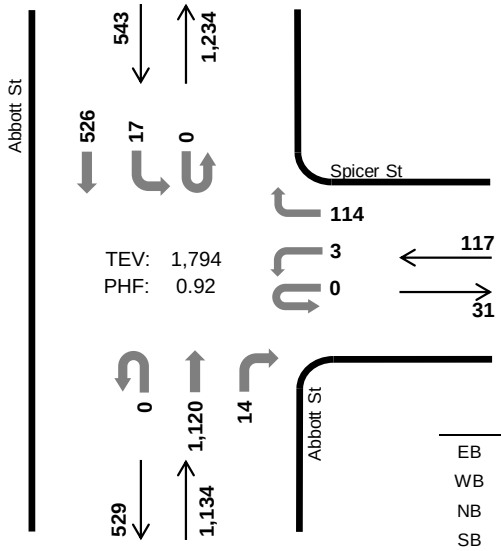
Two-Hour Count Summaries - Bikes

Interval Start	n/a			Spicer St			Abbott St			Abbott St			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	1
Count Total	0	0	0	0	0	0	0	1	0	0	0	0	1	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

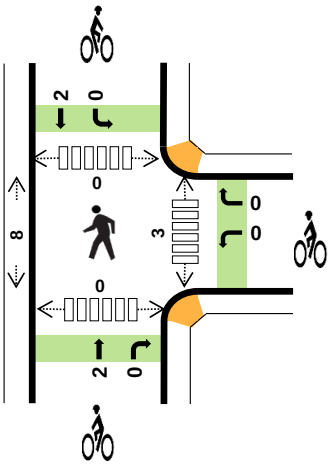
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Abbott St
Spicer St

Date: 11-21-2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM



	HV %:	PHF
EB	-	-
WB	0.9%	0.81
NB	3.0%	0.86
SB	4.2%	0.86
TOTAL	3.2%	0.92



Two-Hour Count Summaries

Interval Start		n/a Eastbound				Spicer St Westbound				Abbott St Northbound				Abbott St Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	0	0	0	0	2	0	33	0	0	295	4	0	7	143	0	484	0
4:15 PM		**0**	**0**	**0**	**0**	**0**	**2**	**0**	**21**	**0**	**0**	**227**	**5**	**0**	**8**	**150**	**0**	**413**	0
4:30 PM		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**26**	**0**	**0**	**307**	**3**	**0**	**2**	**138**	**0**	**476**	0
4:45 PM		**0**	**0**	**0**	**0**	**0**	**1**	**0**	**31**	**0**	**0**	**258**	**3**	**0**	**5**	**117**	**0**	**415**	1,788
5:00 PM		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**36**	**0**	**0**	**328**	**3**	**0**	**2**	**121**	**0**	**490**	**1,794**
5:15 PM		0	0	0	0	0	1	0	14	0	0	225	2	0	4	105	0	351	1,732
5:30 PM		0	0	0	0	0	3	0	22	0	0	169	4	0	4	95	0	297	1,553
5:45 PM		0	0	0	0	0	1	0	11	0	0	124	2	0	2	84	0	224	1,362
Count Total		0	0	0	0	0	10	0	194	0	0	1,933	26	0	34	953	0	3,150	0
Peak Hour	**All**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**114**	**0**	**0**	**1,120**	**14**	**0**	**17**	**526**	**0**	**1,794**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**22**	**12**	**0**	**2**	**21**	**0**	**58**	**0**
	HV%	**-**	**-**	**-**	**-**	**-**	**0%**	**-**	**1%**	**-**	**-**	**2%**	**86%**	**-**	**12%**	**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
4:00 PM	0	1	5	5	*11*	0	0	2	0	*2*	2	3	0	0	*5*
4:15 PM	**0**	**0**	**12**	**6**	***18***	**0**	**0**	**0**	**0**	***0***	**0**	**2**	**0**	**0**	*2*
4:30 PM	**0**	**1**	**8**	**5**	***14***	**0**	**0**	**0**	**1**	***1***	**1**	**2**	**0**	**0**	*3*
4:45 PM	**0**	**0**	**9**	**9**	***18***	**0**	**0**	**1**	**0**	***1***	**1**	**2**	**0**	**0**	*3*
5:00 PM	**0**	**0**	**5**	**3**	***8***	**0**	**0**	**1**	**1**	***2***	**1**	**2**	**0**	**0**	***3***
5:15 PM	0	2	5	10	*17*	0	0	0	0	*0*	1	2	0	0	*3*
5:30 PM	0	1	11	2	*14*	0	0	0	0	*0*	1	1	1	0	*3*
5:45 PM	0	0	6	6	*12*	0	0	0	0	*0*	1	0	0	0	*1*
Count Total	0	5	61	46	*112*	0	0	4	2	*6*	8	14	1	0	*23*
Peak Hr	**0**	**1**	**34**	**23**	***58***	**0**	**0**	**2**	**2**	***4***	**3**	**8**	**0**	**0**	***11***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	n/a				Spicer St				Abbott St				Abbott St				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	1	0	0	3	2	0	1	4	0	11	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	**3**	**0**	**1**	**5**	**0**	**18**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**5**	**3**	**0**	**0**	**5**	**0**	**14**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**3**	**0**	**1**	**8**	**0**	**18**	61
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**3**	**0**	**0**	**3**	**0**	**8**	**58**
5:15 PM	0	0	0	0	0	0	0	2	0	0	3	2	0	1	9	0	17	57
5:30 PM	0	0	0	0	0	0	0	1	0	0	7	4	0	0	2	0	14	57
5:45 PM	0	0	0	0	0	0	0	0	0	0	4	2	0	0	6	0	12	51
Count Total	0	0	0	0	0	0	0	5	0	0	39	22	0	4	42	0	112	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**22**	**12**	**0**	**2**	**21**	**0**	**58**	**0**

Two-Hour Count Summaries - Bikes

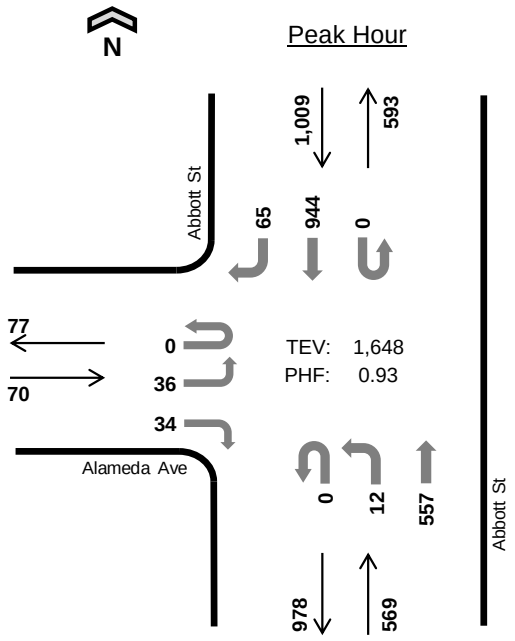
Interval Start	n/a			Spicer St			Abbott St			Abbott St			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	1	1	0	0	0	2	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	4
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**2**	**4**
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Count Total	0	0	0	0	0	0	0	3	1	0	2	0	6	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**2**	**0**	**4**	**0**

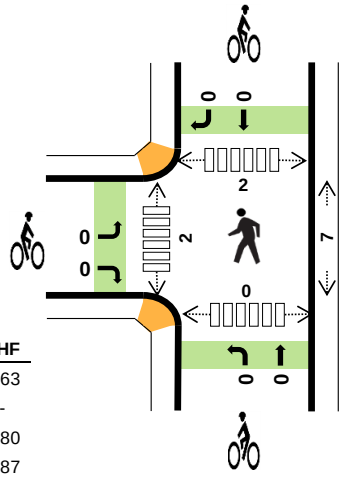
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Abbott St
Alameda Ave

Date: 11-21-2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM

Peak Hour





	HV %:	PHF
EB	0.0%	0.63
WB	-	-
NB	7.0%	0.80
SB	2.2%	0.87
TOTAL	3.8%	0.93

Two-Hour Count Summaries

Interval Start		Alameda Ave Eastbound				n/a Westbound				Abbott St Northbound				Abbott St Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	7	0	4	0	0	0	0	0	2	58	0	0	0	113	7	191	0
7:15 AM		0	13	0	7	0	0	0	0	0	0	75	0	0	0	158	13	266	0
7:30 AM		0	14	0	9	0	0	0	0	0	2	92	0	0	0	189	10	316	0
7:45 AM		**0**	**13**	**0**	**15**	**0**	**0**	**0**	**0**	**0**	**2**	**122**	**0**	**0**	**0**	**272**	**17**	**441**	1,214
8:00 AM		**0**	**8**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**113**	**0**	**0**	**0**	**255**	**18**	**400**	1,423
8:15 AM		**0**	**8**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**8**	**170**	**0**	**0**	**0**	**221**	**14**	**429**	1,586
8:30 AM		**0**	**7**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**2**	**152**	**0**	**0**	**0**	**196**	**16**	**378**	**1,648**
8:45 AM		0	4	0	6	0	0	0	0	0	2	142	0	0	0	204	7	365	1,572
Count Total		0	74	0	60	0	0	0	0	0	18	924	0	0	0	1,608	102	2,786	0
Peak Hour	**All**	**0**	**36**	**0**	**34**	**0**	**0**	**0**	**0**	**0**	**12**	**557**	**0**	**0**	**0**	**944**	**65**	**1,648**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**39**	**0**	**0**	**0**	**20**	**2**	**62**	**0**
	HV%	**-**	**0%**	**-**	**0%**	**-**	**-**	**-**	**-**	**-**	**8%**	**7%**	**-**	**-**	**-**	**2%**	**3%**	**4%**	**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	2	*5*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	1	0	8	7	*16*	0	0	0	0	*0*	1	0	0	0	*1*
7:30 AM	0	0	10	3	*13*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	**0**	**0**	**8**	**2**	***10***	**0**	**0**	**0**	**0**	***0***	**1**	**1**	**0**	**0**	*2*
8:00 AM	**0**	**0**	**10**	**5**	***15***	**0**	**0**	**0**	**0**	***0***	**3**	**1**	**0**	**0**	*4*
8:15 AM	**0**	**0**	**8**	**7**	***15***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**2**	**0**	*4*
8:30 AM	**0**	**0**	**14**	**8**	***22***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	***1***
8:45 AM	0	0	10	11	*21*	0	0	1	0	*1*	3	1	2	0	*6*
Count Total	1	0	71	45	*117*	0	0	1	0	*1*	11	3	4	0	*18*
Peak Hr	**0**	**0**	**40**	**22**	***62***	**0**	**0**	**0**	**0**	***0***	**7**	**2**	**2**	**0**	***11***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Alameda Ave				n/a				Abbott St				Abbott St				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	2	0	5	0
7:15 AM	0	0	0	1	0	0	0	0	0	0	8	0	0	0	7	0	16	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	3	0	13	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**7**	**0**	**0**	**0**	**2**	**0**	**10**	44
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**5**	**0**	**15**	54
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**7**	**0**	**15**	53
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**0**	**0**	**6**	**2**	**22**	**62**
8:45 AM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	11	0	21	73
Count Total	0	0	0	1	0	0	0	0	0	1	70	0	0	0	43	2	117	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**39**	**0**	**0**	**0**	**20**	**2**	**62**	**0**

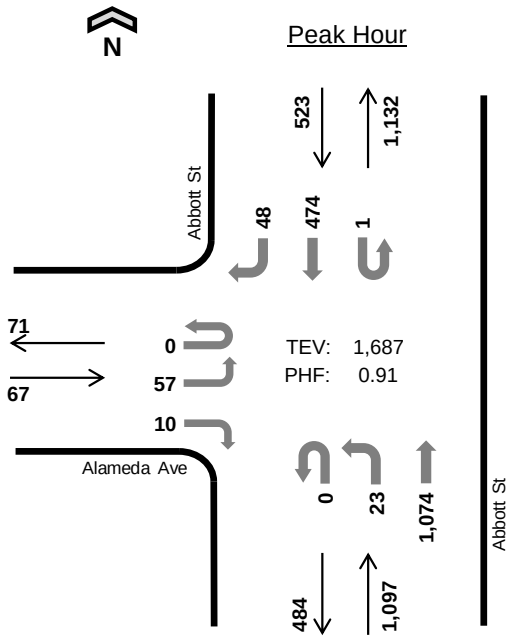
Two-Hour Count Summaries - Bikes

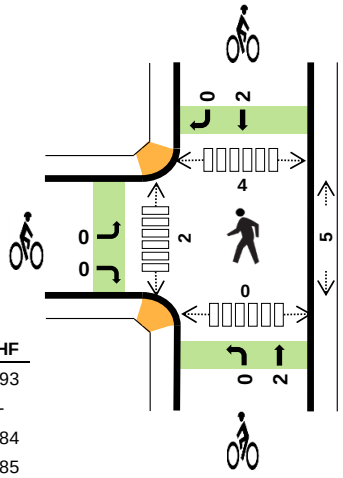
Interval Start	Alameda Ave			n/a			Abbott St			Abbott St			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	1
Count Total	0	0	0	0	0	0	0	1	0	0	0	0	1	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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

Abbott St
Alameda Ave

Date: 11-21-2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM





	HV %:	PHF
EB	0.0%	0.93
WB	-	-
NB	3.1%	0.84
SB	4.2%	0.85
TOTAL	3.3%	0.91

Two-Hour Count Summaries

Interval Start		Alameda Ave Eastbound				n/a Westbound				Abbott St Northbound				Abbott St Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	11	0	3	0	0	0	0	0	3	287	0	0	0	134	10	448	0
4:15 PM		**0**	**14**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**2**	**217**	**0**	**0**	**0**	**141**	**12**	**389**	0
4:30 PM		**0**	**14**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**9**	**295**	**0**	**1**	**0**	**123**	**11**	**456**	0
4:45 PM		**0**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**246**	**0**	**0**	**0**	**104**	**11**	**379**	1,672
5:00 PM		**0**	**14**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**9**	**316**	**0**	**0**	**0**	**106**	**14**	**463**	**1,687**
5:15 PM		0	16	0	3	0	0	0	0	0	1	208	0	0	0	92	14	334	1,632
5:30 PM		0	12	0	3	0	0	0	0	0	4	160	0	0	0	91	8	278	1,454
5:45 PM		0	8	0	3	0	0	0	0	0	3	116	0	0	0	73	12	215	1,290
Count Total		0	104	0	22	0	0	0	0	0	34	1,845	0	1	0	864	92	2,962	0
Peak Hour	**All**	**0**	**57**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**23**	**1,074**	**0**	**1**	**0**	**474**	**48**	**1,687**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**34**	**0**	**0**	**0**	**22**	**0**	**56**	**0**
	HV%	**-**	**0%**	**-**	**0%**	**-**	**-**	**-**	**-**	**-**	**0%**	**3%**	**-**	**0%**	**-**	**5%**	**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
4:00 PM	0	0	6	3	*9*	0	0	2	0	*2*	3	1	2	0	*6*
4:15 PM	**0**	**0**	**12**	**5**	***17***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**1**	**0**	*2*
4:30 PM	**0**	**0**	**8**	**5**	***13***	**0**	**0**	**0**	**1**	***1***	**1**	**0**	**2**	**0**	*3*
4:45 PM	**0**	**0**	**9**	**8**	***17***	**0**	**0**	**1**	**0**	***1***	**1**	**0**	**1**	**0**	*2*
5:00 PM	**0**	**0**	**5**	**4**	***9***	**0**	**0**	**1**	**1**	***2***	**2**	**2**	**0**	**0**	***4***
5:15 PM	0	0	5	9	*14*	0	0	0	0	*0*	3	0	1	0	*4*
5:30 PM	0	0	11	2	*13*	0	0	0	0	*0*	2	0	1	0	*3*
5:45 PM	0	0	5	6	*11*	0	0	0	0	*0*	0	0	3	0	*3*
Count Total	0	0	61	42	*103*	0	0	4	2	*6*	13	3	11	0	*27*
Peak Hr	**0**	**0**	**34**	**22**	***56***	**0**	**0**	**2**	**2**	***4***	**5**	**2**	**4**	**0**	***11***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Alameda Ave				n/a				Abbott St				Abbott St				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	6	0	0	0	3	0	9	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**12**	**0**	**0**	**0**	**5**	**0**	**17**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**5**	**0**	**13**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**0**	**8**	**0**	**17**	56
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**4**	**0**	**9**	**56**
5:15 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	9	0	14	53
5:30 PM	0	0	0	0	0	0	0	0	0	0	11	0	0	0	2	0	13	53
5:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	6	0	11	47
Count Total	0	0	0	0	0	0	0	0	0	0	61	0	0	0	42	0	103	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**34**	**0**	**0**	**0**	**22**	**0**	**56**	**0**

Two-Hour Count Summaries - Bikes

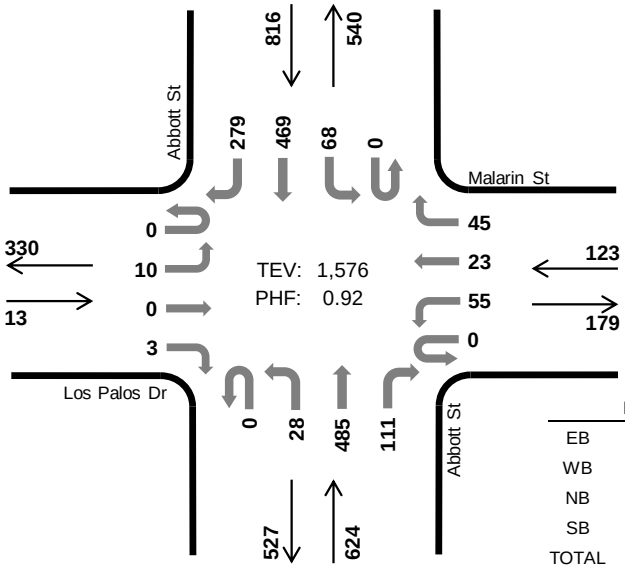
Interval Start	Alameda Ave			n/a			Abbott St			Abbott St			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	4
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**2**	**4**
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Count Total	0	0	0	0	0	0	0	4	0	0	2	0	6	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**2**	**0**	**4**	**0**

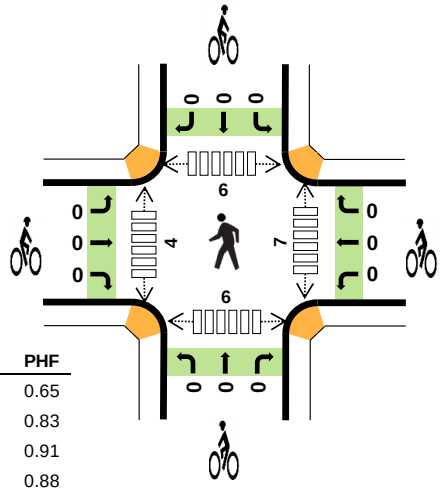
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Abbott St
Los Palos Dr

Date: 11-21-2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM

Peak Hour





	HV %:	PHF
EB	0.0%	0.65
WB	14.6%	0.83
NB	5.6%	0.91
SB	2.3%	0.88
TOTAL	4.6%	0.92

Two-Hour Count Summaries

Interval Start		Los Palos Dr Eastbound				Malarin St Westbound				Abbott St Northbound				Abbott St Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM		0	0	1	0	0	5	2	1	0	2	65	13	0	9	70	28	196	0
7:15 AM		0	1	0	0	0	8	1	4	0	2	68	12	0	16	84	28	224	0
7:30 AM		0	3	1	0	0	12	4	2	0	3	90	16	0	14	93	58	296	0
7:45 AM		**0**	**3**	**0**	**2**	**0**	**11**	**6**	**9**	**0**	**9**	**117**	**40**	**0**	**26**	**125**	**82**	**430**	1,146
8:00 AM		**0**	**1**	**0**	**1**	**0**	**13**	**11**	**10**	**0**	**8**	**105**	**32**	**0**	**17**	**124**	**77**	**399**	1,349
8:15 AM		**0**	**1**	**0**	**0**	**0**	**21**	**6**	**10**	**0**	**6**	**149**	**16**	**0**	**13**	**107**	**67**	**396**	1,521
8:30 AM		**0**	**5**	**0**	**0**	**0**	**10**	**0**	**16**	**0**	**5**	**114**	**23**	**0**	**12**	**113**	**53**	**351**	**1,576**
8:45 AM		0	4	1	0	0	11	1	14	0	5	119	16	0	16	105	59	351	1,497
Count Total		0	18	3	3	0	91	31	66	0	40	827	168	0	123	821	452	2,643	0
Peak Hour	**All**	**0**	**10**	**0**	**3**	**0**	**55**	**23**	**45**	**0**	**28**	**485**	**111**	**0**	**68**	**469**	**279**	**1,576**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**15**	**1**	**2**	**0**	**0**	**32**	**3**	**0**	**1**	**18**	**0**	**72**	**0**
	HV%	**-**	**0%**	**-**	**0%**	**-**	**27%**	**4%**	**4%**	**-**	**0%**	**7%**	**3%**	**-**	**1%**	**4%**	**0%**	**5%**	**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	3	5	2	*10*	0	0	0	0	*0*	1	0	0	1	*2*
7:15 AM	0	4	8	10	*22*	0	0	0	0	*0*	0	0	2	0	*2*
7:30 AM	0	7	11	3	*21*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	**0**	**4**	**7**	**2**	***13***	**0**	**0**	**0**	**0**	***0***	**2**	**3**	**3**	**2**	*10*
8:00 AM	**0**	**7**	**10**	**5**	***22***	**0**	**0**	**0**	**0**	***0***	**1**	**1**	**2**	**1**	*5*
8:15 AM	**0**	**5**	**8**	**7**	***20***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**1**	**1**	*4*
8:30 AM	**0**	**2**	**10**	**5**	***17***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**2**	***4***
8:45 AM	0	1	7	10	*18*	0	0	0	0	*0*	0	1	1	0	*2*
Count Total	0	33	66	44	*143*	0	0	0	0	*0*	8	5	9	7	*29*
Peak Hour	**0**	**18**	**35**	**19**	***72***	**0**	**0**	**0**	**0**	***0***	**7**	**4**	**6**	**6**	***23***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Los Palos Dr				Malarin St				Abbott St				Abbott St				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	1	0	0	0	5	0	0	0	2	0	10	0
7:15 AM	0	0	0	0	0	4	0	0	0	0	6	2	0	1	9	0	22	0
7:30 AM	0	0	0	0	0	7	0	0	0	0	11	0	0	1	2	0	21	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**1**	**0**	**0**	**6**	**1**	**0**	**0**	**2**	**0**	**13**	66
8:00 AM	**0**	**0**	**0**	**0**	**0**	**5**	**1**	**1**	**0**	**0**	**9**	**1**	**0**	**1**	**4**	**0**	**22**	78
8:15 AM	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**7**	**1**	**0**	**0**	**7**	**0**	**20**	76
8:30 AM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**5**	**0**	**17**	**72**
8:45 AM	0	0	0	0	0	0	1	0	0	0	7	0	0	0	10	0	18	77
Count Total	0	0	0	0	0	28	3	2	0	0	61	5	0	3	41	0	143	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**15**	**1**	**2**	**0**	**0**	**32**	**3**	**0**	**1**	**18**	**0**	**72**	**0**

Two-Hour Count Summaries - Bikes

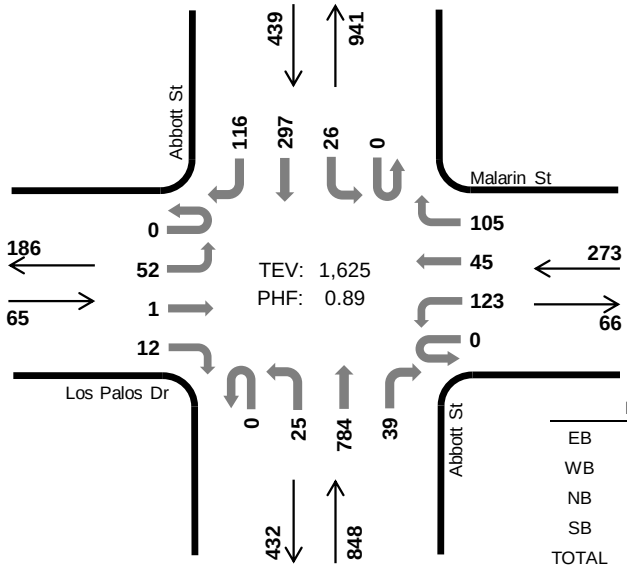
Interval Start	Los Palos Dr			Malarin St			Abbott St			Abbott St			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

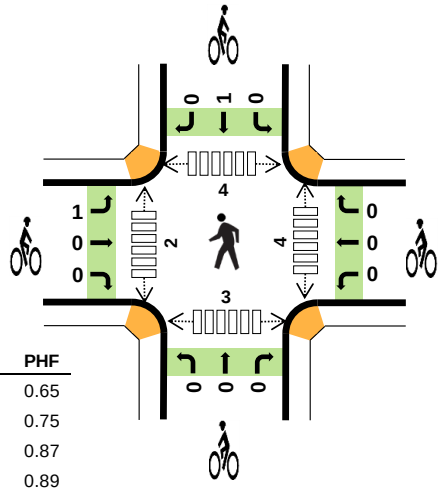
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Abbott St
Los Palos Dr

Date: 11-21-2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM

Peak Hour





	HV %:	PHF
EB	0.0%	0.65
WB	6.2%	0.75
NB	4.0%	0.87
SB	3.4%	0.89
TOTAL	4.1%	0.89

Two-Hour Count Summaries

Interval Start		Los Palos Dr Eastbound				Malarin St Westbound				Abbott St Northbound				Abbott St Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	4	0	0	0	22	4	28	0	5	230	18	0	5	92	28	436	0
4:15 PM		**0**	**4**	**0**	**1**	**0**	**31**	**5**	**12**	**0**	**2**	**161**	**15**	**0**	**6**	**70**	**47**	**354**	0
4:30 PM		**0**	**12**	**0**	**2**	**0**	**30**	**18**	**31**	**0**	**7**	**223**	**12**	**0**	**4**	**85**	**26**	**450**	0
4:45 PM		**0**	**19**	**1**	**5**	**0**	**19**	**8**	**28**	**0**	**9**	**169**	**7**	**0**	**9**	**72**	**17**	**363**	1,603
5:00 PM		**0**	**17**	**0**	**4**	**0**	**43**	**14**	**34**	**0**	**7**	**231**	**5**	**0**	**7**	**70**	**26**	**458**	**1,625**
5:15 PM		0	8	0	1	0	21	5	19	0	4	154	9	0	5	73	18	317	1,588
5:30 PM		0	1	0	1	0	8	8	13	0	2	123	5	1	2	53	19	236	1,374
5:45 PM		0	1	0	0	0	8	3	15	0	1	92	1	0	0	45	22	188	1,199
Count Total		0	66	1	14	0	182	65	180	0	37	1,383	72	1	38	560	203	2,802	0
Peak Hour	**All**	**0**	**52**	**1**	**12**	**0**	**123**	**45**	**105**	**0**	**25**	**784**	**39**	**0**	**26**	**297**	**116**	**1,625**	**0**
	HV	**0**	**0**	**0**	**0**	**0**	**17**	**0**	**0**	**0**	**1**	**32**	**1**	**0**	**0**	**15**	**0**	**66**	**0**
	HV%	**-**	**0%**	**0%**	**0%**	**-**	**14%**	**0%**	**0%**	**-**	**4%**	**4%**	**3%**	**-**	**0%**	**5%**	**0%**	**4%**	**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	2	8	3	*13*	0	0	0	0	*0*	1	5	2	0	*8*
4:15 PM	**0**	**5**	**10**	**5**	***20***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**1**	*3*
4:30 PM	**0**	**3**	**7**	**1**	***11***	**0**	**0**	**0**	**1**	***1***	**1**	**0**	**3**	**2**	*6*
4:45 PM	**0**	**4**	**10**	**5**	***19***	**1**	**0**	**0**	**0**	***1***	**0**	**1**	**0**	**0**	*1*
5:00 PM	**0**	**5**	**7**	**4**	***16***	**0**	**0**	**0**	**0**	***0***	**1**	**1**	**1**	**0**	***3***
5:15 PM	0	2	3	8	*13*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	0	1	10	3	*14*	0	0	0	0	*0*	1	0	1	0	*2*
5:45 PM	0	0	3	5	*8*	0	0	0	0	*0*	2	0	0	0	*2*
Count Total	0	22	58	34	*114*	1	0	0	1	*2*	8	7	7	3	*25*
Peak Hour	**0**	**17**	**34**	**15**	***66***	**1**	**0**	**0**	**1**	***2***	**4**	**2**	**4**	**3**	***13***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Los Palos Dr				Malarin St				Abbott St				Abbott St				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	6	2	0	0	3	0	13	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**5**	**0**	**20**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**6**	**1**	**0**	**0**	**1**	**0**	**11**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**5**	**0**	**19**	63
5:00 PM	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**1**	**6**	**0**	**0**	**0**	**4**	**0**	**16**	**66**
5:15 PM	0	0	0	0	0	2	0	0	0	0	3	0	0	0	8	0	13	59
5:30 PM	0	0	0	0	0	1	0	0	0	0	10	0	0	0	3	0	14	62
5:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	5	0	8	51
Count Total	0	0	0	0	0	22	0	0	0	1	54	3	0	0	34	0	114	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**17**	**0**	**0**	**0**	**1**	**32**	**1**	**0**	**0**	**15**	**0**	**66**	**0**

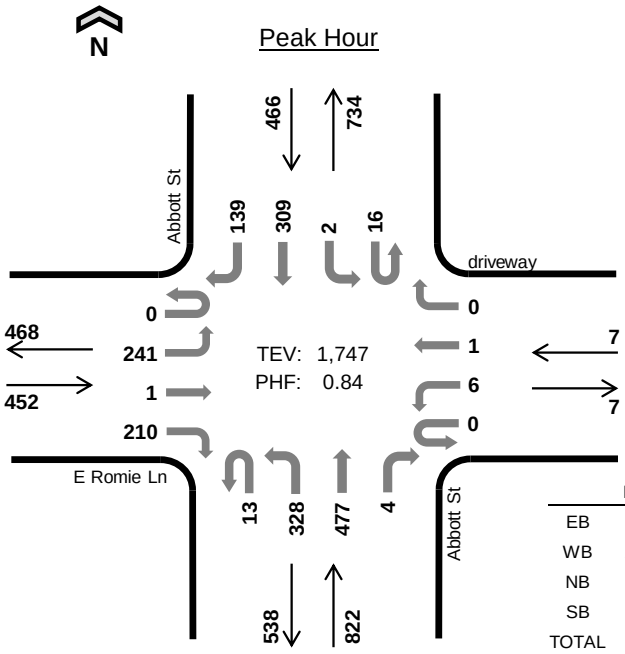
Two-Hour Count Summaries - Bikes

Interval Start	Los Palos Dr			Malarin St			Abbott St			Abbott St			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	0
4:45 PM	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	2
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	1	0	0	0	0	0	0	0	0	0	1	0	2	0
Peak Hour	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	**0**

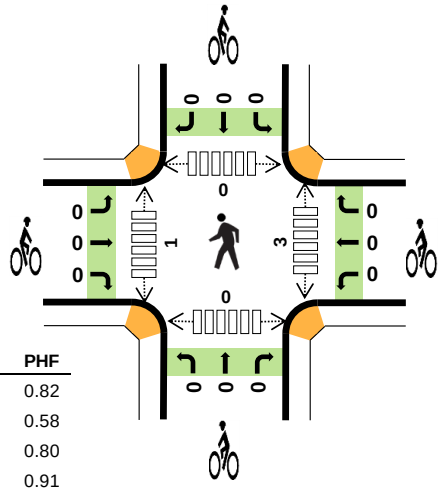
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Abbott St
E Romie Ln

Date: 11-21-2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM



	HV %:	PHF
EB	4.0%	0.82
WB	14.3%	0.58
NB	3.6%	0.80
SB	6.9%	0.91
TOTAL	4.6%	0.84



Two-Hour Count Summaries

Interval Start	E Romie Ln Eastbound				driveway Westbound				Abbott St Northbound				Abbott St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	29	0	36	0	4	0	0	2	13	63	0	1	0	51	22	221	0
7:15 AM	0	40	0	29	0	2	0	0	1	20	57	4	1	0	63	23	240	0
7:30 AM	0	42	1	49	0	2	0	0	2	64	91	3	5	0	58	18	335	0
7:45 AM	**0**	**64**	**1**	**72**	**0**	**0**	**0**	**0**	**1**	**107**	**147**	**1**	**7**	**0**	**85**	**36**	**521**	1,317
8:00 AM	**0**	**59**	**0**	**62**	**0**	**1**	**1**	**0**	**4**	**78**	**112**	**2**	**4**	**2**	**75**	**31**	**431**	1,527
8:15 AM	**0**	**69**	**0**	**43**	**0**	**2**	**0**	**0**	**4**	**72**	**113**	**1**	**3**	**0**	**83**	**36**	**426**	1,713
8:30 AM	**0**	**49**	**0**	**33**	**0**	**3**	**0**	**0**	**4**	**71**	**105**	**0**	**2**	**0**	**66**	**36**	**369**	**1,747**
8:45 AM	0	55	0	43	0	1	1	0	6	65	97	0	0	0	78	34	380	1,606
Count Total	0	407	2	367	0	15	2	0	24	490	785	11	23	2	559	236	2,923	0
Peak Hour All	**0**	**241**	**1**	**210**	**0**	**6**	**1**	**0**	**13**	**328**	**477**	**4**	**16**	**2**	**309**	**139**	**1,747**	**0**
Peak Hour HV	**0**	**11**	**0**	**7**	**0**	**1**	**0**	**0**	**0**	**2**	**27**	**1**	**1**	**1**	**16**	**14**	**81**	**0**
Peak Hour HV%	**-**	**5%**	**0%**	**3%**	**-**	**17%**	**0%**	**-**	**0%**	**1%**	**6%**	**25%**	**6%**	**50%**	**5%**	**10%**	**5%**	**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	2	3	4	4	*13*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	3	2	10	13	*28*	0	0	0	0	*0*	1	0	1	0	*2*
7:30 AM	3	0	10	9	*22*	1	0	1	0	*2*	0	0	0	1	*1*
7:45 AM	**2**	**0**	**7**	**5**	***14***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	*1*
8:00 AM	**7**	**0**	**7**	**7**	***21***	**0**	**0**	**0**	**0**	***0***	**3**	**0**	**0**	**0**	*3*
8:15 AM	**5**	**1**	**7**	**14**	***27***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
8:30 AM	**4**	**0**	**9**	**6**	***19***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
8:45 AM	3	1	5	10	*19*	0	0	0	0	*0*	0	1	0	0	*1*
Count Total	29	7	59	68	*163*	1	0	1	0	*2*	4	2	1	1	*8*
Peak Hour	**18**	**1**	**30**	**32**	***81***	**0**	**0**	**0**	**0**	***0***	**3**	**1**	**0**	**0**	***4***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	E Romie Ln				driveway				Abbott St				Abbott St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	2	0	0	0	3	0	0	1	1	2	0	0	0	1	3	13	0
7:15 AM	0	3	0	0	0	2	0	0	1	2	6	1	0	0	9	4	28	0
7:30 AM	0	3	0	0	0	0	0	0	0	2	8	0	0	0	6	3	22	0
7:45 AM	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**5**	**14**	77
8:00 AM	**0**	**4**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**1**	**1**	**1**	**2**	**3**	**21**	85
8:15 AM	**0**	**3**	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**2**	**5**	**0**	**0**	**0**	**11**	**3**	**27**	84
8:30 AM	**0**	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**0**	**3**	**3**	**19**	**81**
8:45 AM	0	2	0	1	0	1	0	0	0	0	5	0	0	0	8	2	19	86
Count Total	0	21	0	8	0	7	0	0	2	7	48	2	1	1	40	26	163	0
Peak Hour	**0**	**11**	**0**	**7**	**0**	**1**	**0**	**0**	**0**	**2**	**27**	**1**	**1**	**1**	**16**	**14**	**81**	**0**

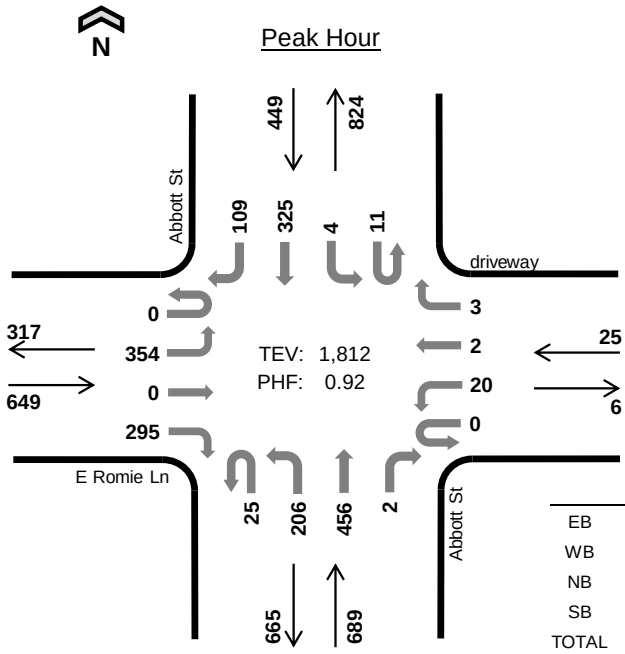
Two-Hour Count Summaries - Bikes

Interval Start	E Romie Ln			driveway			Abbott St			Abbott St			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	1	0	0	0	1	0	0	0	0	0	2	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	2
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	2
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	2
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	1	0	0	0	1	0	0	0	0	0	2	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

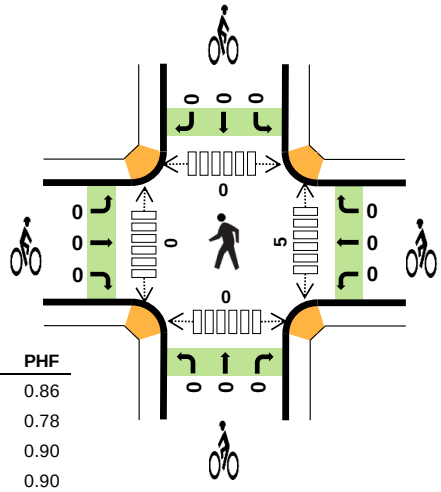
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Abbott St
E Romie Ln

Date: 11-21-2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM



	HV %:	PHF
EB	2.9%	0.86
WB	28.0%	0.78
NB	4.5%	0.90
SB	6.2%	0.90
TOTAL	4.7%	0.92



Two-Hour Count Summaries

Interval Start	E Romie Ln Eastbound				driveway Westbound				Abbott St Northbound				Abbott St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**100**	**0**	**88**	**0**	**5**	**0**	**2**	**5**	**54**	**131**	**1**	**1**	**0**	**81**	**26**	**494**	0
4:15 PM	**0**	**76**	**0**	**75**	**0**	**2**	**1**	**0**	**5**	**50**	**108**	**0**	**4**	**1**	**85**	**26**	**433**	0
4:30 PM	**0**	**96**	**0**	**62**	**0**	**7**	**0**	**1**	**9**	**53**	**121**	**1**	**3**	**2**	**90**	**30**	**475**	0
4:45 PM	**0**	**82**	**0**	**70**	**0**	**6**	**1**	**0**	**6**	**49**	**96**	**0**	**3**	**1**	**69**	**27**	**410**	**1,812**
5:00 PM	0	84	0	108	0	6	1	0	6	50	115	0	1	0	96	25	492	1,810
5:15 PM	0	65	0	76	0	7	0	0	9	58	86	0	1	0	71	33	406	1,783
5:30 PM	0	48	0	59	0	6	0	0	6	32	61	0	1	0	43	19	275	1,583
5:45 PM	0	43	0	40	0	3	2	0	6	32	50	0	0	0	40	10	226	1,399
Count Total	0	594	0	578	0	42	5	3	52	378	768	2	14	4	575	196	3,211	0
Peak Hour All	**0**	**354**	**0**	**295**	**0**	**20**	**2**	**3**	**25**	**206**	**456**	**2**	**11**	**4**	**325**	**109**	**1,812**	**0**
Peak Hour HV	**0**	**13**	**0**	**6**	**0**	**6**	**0**	**1**	**1**	**1**	**29**	**0**	**1**	**2**	**14**	**11**	**85**	**0**
Peak Hour HV%	**-**	**4%**	**-**	**2%**	**-**	**30%**	**0%**	**33%**	**4%**	**0%**	**6%**	**0%**	**9%**	**50%**	**4%**	**10%**	**5%**	**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	**7**	**2**	**10**	**4**	***23***	**0**	**0**	**0**	**0**	***0***	**3**	**0**	**0**	**0**	*3*
4:15 PM	**2**	**1**	**11**	**9**	***23***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
4:30 PM	**4**	**3**	**4**	**5**	***16***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	*0*
4:45 PM	**6**	**1**	**6**	**10**	***23***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	***1***
5:00 PM	4	1	5	8	*18*	0	0	0	0	*0*	3	8	0	0	*11*
5:15 PM	2	4	6	8	*20*	0	0	0	0	*0*	1	0	0	0	*1*
5:30 PM	3	0	2	5	*10*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	1	1	3	4	*9*	0	0	0	0	*0*	0	1	0	0	*1*
Count Total	29	13	47	53	*142*	0	0	0	0	*0*	9	9	0	0	*18*
Peak Hour	**19**	**7**	**31**	**28**	***85***	**0**	**0**	**0**	**0**	***0***	**5**	**0**	**0**	**0**	***5***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	E Romie Ln				driveway				Abbott St				Abbott St				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**3**	**0**	**4**	**0**	**2**	**0**	**0**	**0**	**1**	**9**	**0**	**0**	**0**	**3**	**1**	**23**	0
4:15 PM	**0**	**2**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**11**	**0**	**1**	**1**	**4**	**3**	**23**	0
4:30 PM	**0**	**3**	**0**	**1**	**0**	**2**	**0**	**1**	**1**	**0**	**3**	**0**	**0**	**0**	**2**	**3**	**16**	0
4:45 PM	**0**	**5**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**1**	**5**	**4**	**23**	**85**
5:00 PM	0	3	0	1	0	1	0	0	0	0	5	0	0	0	6	2	18	80
5:15 PM	0	1	0	1	0	4	0	0	0	0	6	0	0	0	5	3	20	77
5:30 PM	0	3	0	0	0	0	0	0	0	0	2	0	0	0	4	1	10	71
5:45 PM	0	1	0	0	0	1	0	0	0	0	3	0	0	0	4	0	9	57
Count Total	0	21	0	8	0	12	0	1	1	1	45	0	1	2	33	17	142	0
Peak Hour	**0**	**13**	**0**	**6**	**0**	**6**	**0**	**1**	**1**	**1**	**29**	**0**	**1**	**2**	**14**	**11**	**85**	**0**

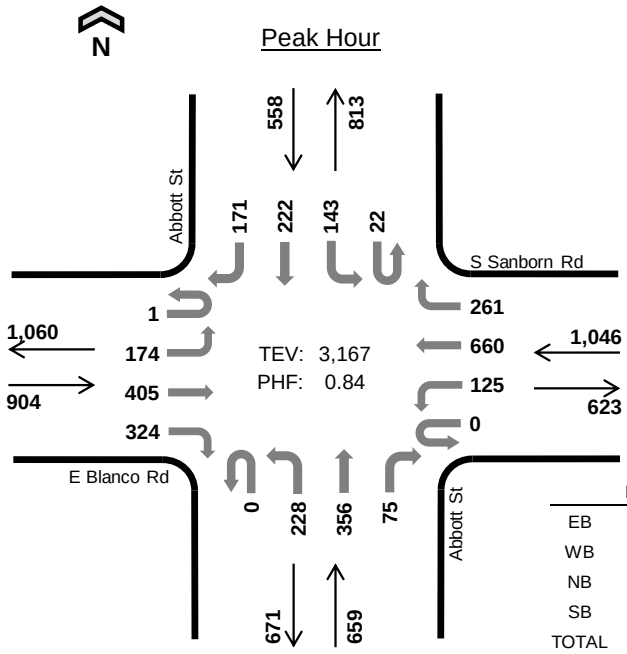
Two-Hour Count Summaries - Bikes

Interval Start	E Romie Ln			driveway			Abbott St			Abbott St			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

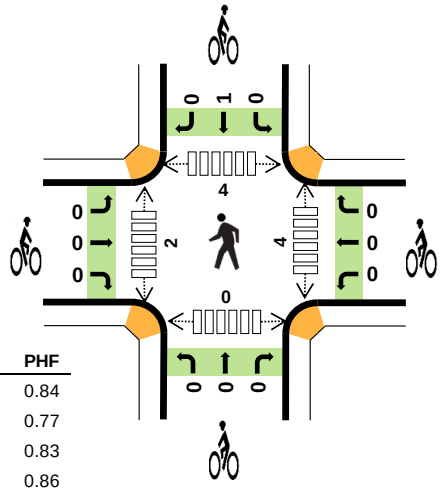
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Abbott St
E Blanco Rd

Date: 11-21-2019
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM



	HV %:	PHF
EB	3.3%	0.84
WB	4.5%	0.77
NB	9.3%	0.83
SB	4.5%	0.86
TOTAL	5.1%	0.84



Two-Hour Count Summaries

Interval Start	E Blanco Rd Eastbound				S Sanborn Rd Westbound				Abbott St Northbound				Abbott St Southbound				15-min Total	Rolling One Hour
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	22	71	58	0	14	136	20	0	31	37	19	2	20	40	21	491	0
7:15 AM	0	26	77	72	0	27	148	18	0	35	29	15	1	29	44	32	553	0
7:30 AM	**0**	**33**	**104**	**69**	**0**	**27**	**153**	**56**	**0**	**55**	**80**	**17**	**3**	**30**	**54**	**33**	**714**	0
7:45 AM	**0**	**45**	**129**	**95**	**0**	**35**	**206**	**99**	**0**	**65**	**113**	**20**	**5**	**34**	**61**	**36**	**943**	2,701
8:00 AM	**1**	**57**	**81**	**87**	**0**	**34**	**111**	**54**	**0**	**52**	**86**	**16**	**9**	**40**	**61**	**52**	**741**	2,951
8:15 AM	**0**	**39**	**91**	**73**	**0**	**29**	**190**	**52**	**0**	**56**	**77**	**22**	**5**	**39**	**46**	**50**	**769**	**3,167**
8:30 AM	0	36	99	68	0	25	152	61	0	64	81	27	8	24	28	32	705	3,158
8:45 AM	0	34	66	42	0	30	107	53	0	61	79	20	5	42	45	35	619	2,834
Count Total	1	292	718	564	0	221	1,203	413	0	419	582	156	38	258	379	291	5,535	0
Peak Hour All	**1**	**174**	**405**	**324**	**0**	**125**	**660**	**261**	**0**	**228**	**356**	**75**	**22**	**143**	**222**	**171**	**3,167**	**0**
Peak Hour HV	**0**	**2**	**18**	**10**	**0**	**17**	**20**	**10**	**0**	**20**	**19**	**22**	**0**	**6**	**9**	**10**	**163**	**0**
Peak Hour HV%	**0%**	**1%**	**4%**	**3%**	**-**	**14%**	**3%**	**4%**	**-**	**9%**	**5%**	**29%**	**0%**	**4%**	**4%**	**6%**	**5%**	**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	5	11	5	*24*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	3	15	14	12	*44*	0	0	0	0	*0*	0	0	1	0	*1*
7:30 AM	**6**	**8**	**21**	**6**	***41***	**0**	**0**	**0**	**1**	***1***	**1**	**1**	**2**	**0**	*4*
7:45 AM	**8**	**13**	**11**	**0**	***32***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**0**	**0**	*1*
8:00 AM	**4**	**14**	**9**	**5**	***32***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**2**	**0**	*3*
8:15 AM	**12**	**12**	**20**	**14**	***58***	**0**	**0**	**0**	**0**	***0***	**2**	**0**	**0**	**0**	***2***
8:30 AM	8	14	22	6	*50*	0	0	0	0	*0*	0	0	1	0	*1*
8:45 AM	4	11	11	8	*34*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	48	92	119	56	*315*	0	0	0	1	*1*	4	2	6	0	*12*
Peak Hour	**30**	**47**	**61**	**25**	***163***	**0**	**0**	**0**	**1**	***1***	**4**	**2**	**4**	**0**	***10***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	E Blanco Rd				S Sanborn Rd				Abbott St				Abbott St				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	3	0	1	3	1	0	5	3	3	0	1	3	1	24	0
7:15 AM	0	1	1	1	0	3	8	4	0	3	5	6	0	3	5	4	44	0
7:30 AM	**0**	**2**	**3**	**1**	**0**	**3**	**3**	**2**	**0**	**10**	**6**	**5**	**0**	**2**	**3**	**1**	**41**	0
7:45 AM	**0**	**0**	**6**	**2**	**0**	**6**	**4**	**3**	**0**	**0**	**4**	**7**	**0**	**0**	**0**	**0**	**32**	141
8:00 AM	**0**	**0**	**2**	**2**	**0**	**4**	**7**	**3**	**0**	**3**	**4**	**2**	**0**	**2**	**1**	**2**	**32**	149
8:15 AM	**0**	**0**	**7**	**5**	**0**	**4**	**6**	**2**	**0**	**7**	**5**	**8**	**0**	**2**	**5**	**7**	**58**	**163**
8:30 AM	0	1	2	5	0	4	8	2	0	6	6	10	1	1	3	1	50	172
8:45 AM	0	1	3	0	0	4	7	0	0	4	4	3	0	4	2	2	34	174
Count Total	0	5	24	19	0	29	46	17	0	38	37	44	1	15	22	18	315	0
Peak Hour	**0**	**2**	**18**	**10**	**0**	**17**	**20**	**10**	**0**	**20**	**19**	**22**	**0**	**6**	**9**	**10**	**163**	**0**

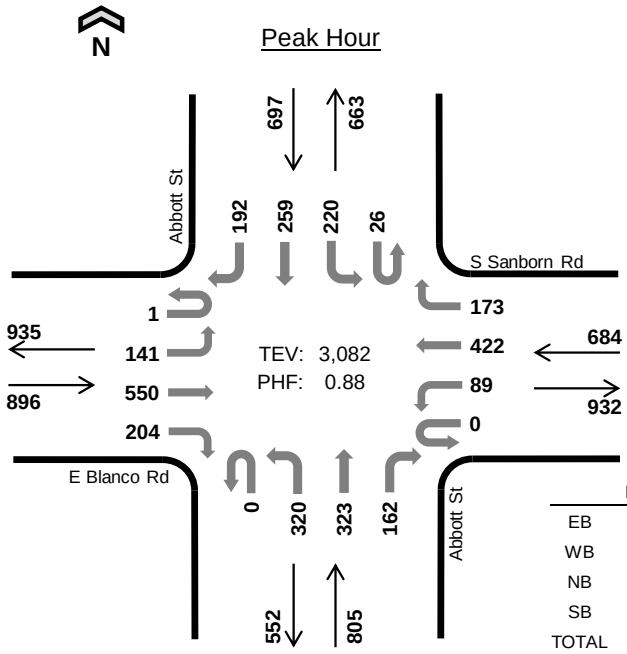
Two-Hour Count Summaries - Bikes

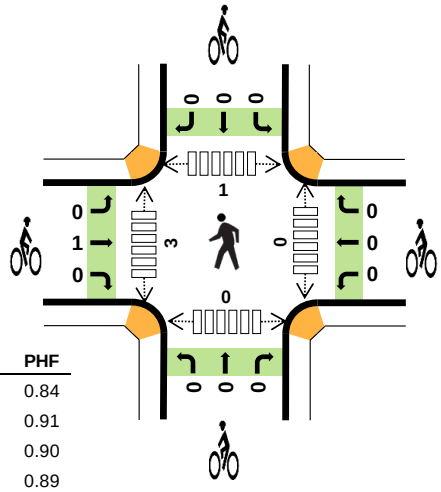
Interval Start	E Blanco Rd			S Sanborn Rd			Abbott St			Abbott St			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	1
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	1	0	1	0
Peak Hour	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**

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

Abbott St
E Blanco Rd

Date: 11-21-2019
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM





	HV %:	PHF
EB	2.7%	0.84
WB	4.8%	0.91
NB	7.0%	0.90
SB	3.7%	0.89
TOTAL	4.5%	0.88

Two-Hour Count Summaries

Interval Start		E Blanco Rd Eastbound				S Sanborn Rd Westbound				Abbott St Northbound				Abbott St Southbound				15-min Total	Rolling One Hour
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		0	47	145	72	0	23	86	48	0	75	90	46	7	64	73	32	808	0
4:15 PM		**0**	**31**	**128**	**60**	**0**	**27**	**96**	**51**	**0**	**80**	**78**	**36**	**8**	**58**	**70**	**34**	**757**	0
4:30 PM		**0**	**37**	**137**	**48**	**0**	**18**	**93**	**46**	**0**	**73**	**92**	**50**	**4**	**46**	**64**	**49**	**757**	0
4:45 PM		**0**	**28**	**119**	**41**	**0**	**23**	**101**	**42**	**0**	**72**	**71**	**29**	**7**	**59**	**58**	**45**	**695**	3,017
5:00 PM		**1**	**45**	**166**	**55**	**0**	**21**	**132**	**34**	**0**	**95**	**82**	**47**	**7**	**57**	**67**	**64**	**873**	**3,082**
5:15 PM		0	30	122	60	0	12	83	38	0	73	69	24	13	54	67	39	684	3,009
5:30 PM		1	43	143	55	0	15	93	19	0	60	51	19	7	39	42	27	614	2,866
5:45 PM		0	25	115	46	0	16	93	26	0	19	31	23	9	34	37	26	500	2,671
Count Total		2	286	1,075	437	0	155	777	304	0	547	564	274	62	411	478	316	5,688	0
Peak Hour	**All**	**1**	**141**	**550**	**204**	**0**	**89**	**422**	**173**	**0**	**320**	**323**	**162**	**26**	**220**	**259**	**192**	**3,082**	**0**
	HV	**0**	**4**	**11**	**9**	**0**	**17**	**9**	**7**	**0**	**10**	**16**	**30**	**0**	**7**	**16**	**3**	**139**	**0**
	HV%	**0%**	**3%**	**2%**	**4%**	**-**	**19%**	**2%**	**4%**	**-**	**3%**	**5%**	**19%**	**0%**	**3%**	**6%**	**2%**	**5%**	**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	8	7	17	9	*41*	1	0	0	0	*1*	0	2	0	0	*2*
4:15 PM	**6**	**7**	**15**	**6**	***34***	**1**	**0**	**0**	**0**	***1***	**0**	**1**	**0**	**0**	*1*
4:30 PM	**9**	**9**	**10**	**6**	***34***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	*1*
4:45 PM	**4**	**8**	**16**	**7**	***35***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	*1*
5:00 PM	**5**	**9**	**15**	**7**	***36***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	***1***
5:15 PM	5	6	15	7	*33*	0	0	0	0	*0*	0	0	0	0	*0*
5:30 PM	5	8	6	7	*26*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	4	6	6	6	*22*	0	0	0	0	*0*	2	1	2	0	*5*
Count Total	46	60	100	55	*261*	2	0	0	0	*2*	2	6	3	0	*11*
Peak Hour	**24**	**33**	**56**	**26**	***139***	**1**	**0**	**0**	**0**	***1***	**0**	**3**	**1**	**0**	***4***

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	E Blanco Rd				S Sanborn Rd				Abbott St				Abbott St				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	4	2	0	4	1	2	0	3	6	8	0	2	7	0	41	0
4:15 PM	**0**	**1**	**3**	**2**	**0**	**2**	**2**	**3**	**0**	**2**	**7**	**6**	**0**	**2**	**3**	**1**	**34**	0
4:30 PM	**0**	**1**	**3**	**5**	**0**	**4**	**3**	**2**	**0**	**3**	**2**	**5**	**0**	**2**	**4**	**0**	**34**	0
4:45 PM	**0**	**1**	**1**	**2**	**0**	**4**	**4**	**0**	**0**	**3**	**5**	**8**	**0**	**1**	**6**	**0**	**35**	144
5:00 PM	**0**	**1**	**4**	**0**	**0**	**7**	**0**	**2**	**0**	**2**	**2**	**11**	**0**	**2**	**3**	**2**	**36**	**139**
5:15 PM	0	0	3	2	0	3	3	0	0	4	5	6	0	3	4	0	33	138
5:30 PM	0	1	4	0	0	8	0	0	0	2	1	3	0	0	7	0	26	130
5:45 PM	0	1	0	3	0	4	2	0	0	1	2	3	0	2	3	1	22	117
Count Total	0	8	22	16	0	36	15	9	0	20	30	50	0	14	37	4	261	0
Peak Hour	**0**	**4**	**11**	**9**	**0**	**17**	**9**	**7**	**0**	**10**	**16**	**30**	**0**	**7**	**16**	**3**	**139**	**0**

Two-Hour Count Summaries - Bikes

Interval Start	E Blanco Rd			S Sanborn Rd			Abbott St			Abbott St			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	0	0	0	0	0	1	0
4:15 PM	**0**	**1**	**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
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	2
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	2	0	0	0	0	0	0	0	0	0	0	2	0
Peak Hour	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**

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

Appendix D

Seasonal

Growth Rate

Calculations

Seasonality
Salinas Ag-Industrial (2008)

Volumes
Non-Season

		Volumes																								
		AM												*PM*												
		Northbound			Southbound			Eastbound			Westbound			Northbound			Southbound			Eastbound			Westbound			
	Intersection	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	**Overall**
1.	S Main (SR 68) / Blanco Rd	253	802	575	104	425	130	190	499	213	405	372	82	235	593	400	126	761	221	311	323	264	583	447	121	8435
10.	Blanco - Sanborn / Abbott	154	438	243	158	706	237	161	239	208	252	284	50	184	685	161	47	476	153	250	243	150	280	354	119	6232
16.	Harkins Rd / Abbott St	70	172	55	94	207	86	123	197	105	52	425	50	151	189	47	25	143	117	64	311	58	20	266	124	3151
41.	E Romie / Abbott	205	3	191	3	5	0	19	355	95	279	345	5	363	0	281	17	3	0	21	347	77	226	477	5	3322

Peak Season

		Volumes																								
		AM												*PM*												
		Northbound			Southbound			Eastbound			Westbound			Northbound			Southbound			Eastbound			Westbound			
	Intersection	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	**Overall**
1.	S Main (SR 68) / Blanco Rd	240	756	570	107	511	152	194	505	203	404	353	75	234	673	451	95	740	208	343	348	186	603	485	124	8560
10.	Blanco - Sanborn / Abbott	141	417	236	182	640	222	138	242	235	256	282	63	278	701	204	104	483	212	232	236	188	267	479	289	6727
16.	Harkins Rd / Abbott St	86	174	61	107	241	84	98	234	146	76	453	82	191	234	106	72	129	113	97	321	108	44	372	194	3823
41.	E Romie / Abbott	172	7	202	12	1	1	23	434	99	304	370	9	359	2	258	39	7	2	20	318	61	237	574	9	3520

Net Difference

		Volumes																								
		AM												*PM*												
		Northbound			Southbound			Eastbound			Westbound			Northbound			Southbound			Eastbound			Westbound			
	Intersection	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	**Overall**
1.	S Main (SR 68) / Blanco Rd	-13	-46	-5	3	86	22	4	6	-10	-1	-19	-7	-1	80	51	-31	-21	-13	32	25	-78	20	38	3	125
10.	Blanco - Sanborn / Abbott	-13	-21	-7	24	-66	-15	-23	3	27	4	-2	13	94	16	43	57	7	59	-18	-7	38	-13	125	170	495
16.	Harkins Rd / Abbott St	16	2	6	13	34	-2	-25	37	41	24	28	32	40	45	59	47	-14	-4	33	10	50	24	106	70	672
41.	E Romie / Abbott	-33	4	11	9	-4	1	4	79	4	25	25	4	-4	2	-23	22	4	2	-1	-29	-16	11	97	4	198

Percentage Growth

		Volumes																									
		AM												*PM*													
		Northbound			Southbound			Eastbound			Westbound			Northbound			Southbound			Eastbound			Westbound				
	Intersection	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	**Overall**	
1.	S Main (SR 68) / Blanco Rd	-5.14%	-5.74%	-0.87%	2.88%	20.24%	16.92%	2.11%	1.20%	-4.69%	-0.25%	-5.11%	-8.54%	-0.43%	13.49%	12.75%	-24.60%	-2.76%	-5.88%	10.29%	7.74%	-29.55%	3.43%	8.50%	2.48%	1.48%	
10.	Blanco - Sanborn / Abbott	-8.44%	-4.79%	-2.88%	15.19%	-9.35%	-6.33%	-14.29%	1.26%	12.98%	1.59%	-0.70%	26.00%	51.09%	2.34%	26.71%	121.28%	1.47%	38.56%	-7.20%	-2.88%	25.33%	-4.64%	35.31%	142.86%	7.94%	
16.	Harkins Rd / Abbott St	22.86%	1.16%	10.91%	13.83%	16.43%	-2.33%	-20.33%	18.78%	39.05%	46.15%	6.59%	64.00%	26.49%	23.81%	125.53%	188.00%	-9.79%	-3.42%	51.56%	3.22%	86.21%	120.00%	39.85%	56.45%	21.33%	**Average**
41.	E Romie / Abbott	-16.10%	133.33%	5.76%	300.00%	-80.00%	N/A	21.05%	22.25%	4.21%	8.96%	7.25%	80.00%	-1.10%	N/A	-8.19%	129.41%	133.33%	N/A	-4.76%	-8.36%	-20.78%	4.87%	20.34%	80.00%	5.96%	**9.18%**

Sesonality
Effective Adjustment Volume Growth
Salinas Home2 Suites

Volumes
Non-Season

	Volumes																								
	AM												*PM*												
	Northbound			Southbound			Eastbound			Westbound			Northbound			Southbound			Eastbound			Westbound			
Intersection	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	**Overall**
8. Work / John (SR 68)	111	55	124	30	122	61	49	539	151	196	1,230	91	101	150	246	67	53	47	79	1,049	158	157	806	76	5748
15. Abbott / Alameda	12	557	0	0	944	65	36	0	34	0	0	0	23	1,074	0	0	479	48	57	0	10	0	0	0	3339
17. Abbott / E Romie	341	477	4	18	309	139	241	1	210	6	1	0	231	456	2	15	325	109	354	0	295	20	2	3	3559
18. E Blanco - S Sanborn / Abbott	175	405	324	125	660	261	143	222	171	228	356	75	142	550	204	89	422	173	246	259	192	320	323	162	6227

Seasonal Growth

	Volumes																								
	AM												*PM*												
	Northbound			Southbound			Eastbound			Westbound			Northbound			Southbound			Eastbound			Westbound			
Intersection	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	**Overall**
8. Work / John (SR 68)	0	0	0	0	0	0	0	10	0	0	40	0	0	0	0	0	0	0	0	60	0	0	25	0	135
15. Abbott / Alameda	0	15	0	0	55	0	0	0	0	0	0	0	0	100	0	0	25	0	0	0	0	0	0	0	195
17. Abbott / E Romie	20	25	5	5	80	0	0	5	10	10	2	0	60	170	15	0	30	0	0	0	25	20	2	5	489
18. E Blanco - S Sanborn / Abbott	25	0	0	20	0	10	25	35	40	5	15	15	90	15	40	50	10	60	0	25	40	0	95	170	785

Percentage Growth

	Volumes																									
	AM												*PM*													
	Northbound			Southbound			Eastbound			Westbound			Northbound			Southbound			Eastbound			Westbound				
Intersection	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	**Overall**	
8. Work / John (SR 68)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.86%	0.00%	0.00%	3.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.72%	0.00%	0.00%	3.10%	0.00%	2.35%	
15. Abbott / Alameda	0.00%	2.69%	N/A	N/A	5.83%	0.00%	0.00%	N/A	0.00%	N/A	N/A	N/A	0.00%	9.31%	N/A	N/A	5.22%	0.00%	0.00%	N/A	0.00%	N/A	N/A	N/A	5.84%	
17. Abbott / E Romie	5.87%	5.24%	125.00%	27.78%	25.89%	0.00%	0.00%	500.00%	4.76%	166.67%	200.00%	N/A	25.97%	37.28%	750.00%	0.00%	9.23%	0.00%	0.00%	N/A	8.47%	100.00%	100.00%	166.67%	13.74%	**Average**
18. E Blanco - S Sanborn / Abbott	14.29%	0.00%	0.00%	16.00%	0.00%	3.83%	17.48%	15.77%	23.39%	2.19%	4.21%	20.00%	63.38%	2.73%	19.61%	56.18%	2.37%	34.68%	0.00%	9.65%	20.83%	0.00%	29.41%	104.94%	12.61%	**8.63%**

Appendix E

Level of Service

Calculations

Existing

Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	541	17	222	18	605	259	186	987	21
Future Volume (vph)	0	0	0	541	17	222	18	605	259	186	987	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor				0.95	0.95	1.00	1.00	0.95	0.88	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected				0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1498	1507	1388	1577	3154	2427	1593	3174	
Flt Permitted				0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1498	1507	1388	1577	3154	2427	1593	3174	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	0	0	0	660	21	271	22	738	316	227	1204	26
RTOR Reduction (vph)	0	0	0	0	0	198	0	0	0	0	2	0
Lane Group Flow (vph)	0	0	0	343	338	73	22	738	316	227	1228	0
Confl. Peds. (#/hr)						4			6			2
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	3%	3%	3%	2%	2%	2%
Turn Type				Split	NA	Perm	Prot	NA	Free	Prot	NA	
Protected Phases				8	8		5	2		1	6	
Permitted Phases						8			Free			
Actuated Green, G (s)				16.5	16.5	16.5	0.8	21.4	61.1	11.2	31.8	
Effective Green, g (s)				16.5	16.5	16.5	0.8	21.4	61.1	11.2	31.8	
Actuated g/C Ratio				0.27	0.27	0.27	0.01	0.35	1.00	0.18	0.52	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)				404	406	374	20	1104	2427	292	1651	
v/s Ratio Prot				c0.23	0.22		0.01	0.23		c0.14	c0.39	
v/s Ratio Perm						0.05			0.13			
v/c Ratio				0.85	0.83	0.20	1.10	0.67	0.13	0.78	0.74	
Uniform Delay, d1				21.1	21.0	17.2	30.2	16.8	0.0	23.8	11.5	
Progression Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2				15.2	13.6	0.3	234.8	3.2	0.1	12.2	3.1	
Delay (s)				36.3	34.6	17.4	264.9	20.1	0.1	36.0	14.5	
Level of Service				D	C	B	F	C	A	D	B	
Approach Delay (s)		0.0			30.3			19.2			17.9	
Approach LOS		A			C			B			B	

Intersection Summary

HCM 2000 Control Delay	21.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	61.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	61.5%	ICU Level of Service	B
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 (veh/h)	116	341	62	80	514	118	55	289	66	89	656	162
Future Volume (veh/h)	116	341	62	80	514	118	55	289	66	89	656	162
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1845	1845	1900	1776	1776	1776	1863	1863	1863
Adj Flow Rate, veh/h	140	411	75	96	619	142	66	348	80	107	790	195
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	3	3	3	7	7	7	2	2	2
Cap, veh/h	175	1056	466	122	763	175	94	860	383	137	978	435
Arrive On Green	0.10	0.30	0.30	0.07	0.27	0.27	0.06	0.25	0.25	0.08	0.28	0.28
Sat Flow, veh/h	1774	3539	1563	1757	2834	649	1691	3374	1504	1774	3539	1575
Grp Volume(v), veh/h	140	411	75	96	382	379	66	348	80	107	790	195
Grp Sat Flow(s),veh/h/ln	1774	1770	1563	1757	1752	1730	1691	1687	1504	1774	1770	1575
Q Serve(g_s), s	4.6	5.5	2.1	3.2	12.2	12.3	2.3	5.1	2.5	3.6	12.5	6.1
Cycle Q Clear(g_c), s	4.6	5.5	2.1	3.2	12.2	12.3	2.3	5.1	2.5	3.6	12.5	6.1
Prop In Lane	1.00		1.00	1.00		0.38	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	1056	466	122	472	466	94	860	383	137	978	435
V/C Ratio(X)	0.80	0.39	0.16	0.79	0.81	0.81	0.70	0.40	0.21	0.78	0.81	0.45
Avail Cap(c_a), veh/h	175	1116	493	147	526	519	141	1019	454	148	1069	475
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.5	16.7	15.5	27.5	20.5	20.5	27.8	18.6	17.6	27.2	20.2	17.9
Incr Delay (d2), s/veh	22.9	0.2	0.2	20.5	8.5	8.7	9.1	0.3	0.3	22.0	4.4	0.7
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	3.4	2.7	0.9	2.2	7.0	6.9	1.3	2.4	1.1	2.6	6.6	2.7
LnGrp Delay(d),s/veh	49.3	16.9	15.7	47.9	28.9	29.2	36.9	18.9	17.8	49.2	24.6	18.6
LnGrp LOS	D	B	B	D	C	C	D	B	B	D	C	B
Approach Vol, veh/h		626			857			494			1092	
Approach Delay, s/veh		24.0			31.2			21.1			25.9	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	19.8	8.7	22.4	7.8	21.1	10.4	20.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.1	5.0	18.9	5.0	18.1	5.9	18.0
Max Q Clear Time (g_c+I1), s	5.6	7.1	5.2	7.5	4.3	14.5	6.6	14.3
Green Ext Time (p_c), s	0.0	1.9	0.0	2.2	0.0	2.0	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	26.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	420	80	511	866	57	45	251	244	87	549	9
Future Volume (veh/h)	42	420	80	511	866	57	45	251	244	87	549	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1810	1810	1810	1845	1845	1845
Adj Flow Rate, veh/h	47	472	90	574	973	64	51	282	274	98	617	10
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	5	5	5	3	3	3
Cap, veh/h	69	600	268	602	1585	104	70	743	331	118	849	379
Arrive On Green	0.04	0.17	0.17	0.34	0.47	0.47	0.04	0.22	0.22	0.07	0.24	0.24
Sat Flow, veh/h	1774	3539	1578	1774	3371	222	1723	3438	1534	1757	3505	1566
Grp Volume(v), veh/h	47	472	90	574	511	526	51	282	274	98	617	10
Grp Sat Flow(s),veh/h/ln	1774	1770	1578	1774	1770	1823	1723	1719	1534	1757	1752	1566
Q Serve(g_s), s	2.3	11.1	4.3	27.4	18.6	18.6	2.5	6.1	14.8	4.8	14.0	0.4
Cycle Q Clear(g_c), s	2.3	11.1	4.3	27.4	18.6	18.6	2.5	6.1	14.8	4.8	14.0	0.4
Prop In Lane	1.00		1.00	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	69	600	268	602	832	857	70	743	331	118	849	379
V/C Ratio(X)	0.68	0.79	0.34	0.95	0.61	0.61	0.73	0.38	0.83	0.83	0.73	0.03
Avail Cap(c_a), veh/h	135	736	328	604	836	861	100	743	331	118	849	379
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.1	34.4	31.7	27.9	17.1	17.1	41.0	29.0	32.4	39.9	30.2	25.0
Incr Delay (d2), s/veh	11.0	4.6	0.7	25.4	1.3	1.3	14.3	1.5	20.6	37.5	5.4	0.1
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	1.3	5.8	2.0	17.6	9.4	9.7	1.5	3.0	8.1	3.5	7.4	0.2
LnGrp Delay(d),s/veh	52.0	39.0	32.4	53.3	18.4	18.4	55.3	30.5	53.0	77.4	35.6	25.2
LnGrp LOS	D	D	C	D	B	B	E	C	D	E	D	C
Approach Vol, veh/h		609			1611			607			725	
Approach Delay, s/veh		39.1			30.8			42.7			41.1	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	23.2	33.9	19.2	8.0	25.5	7.9	45.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.8	18.7	29.5	18.0	5.0	19.5	6.6	40.9
Max Q Clear Time (g_c+I1), s	6.8	16.8	29.4	13.1	4.5	16.0	4.3	20.6
Green Ext Time (p_c), s	0.0	0.6	0.0	1.5	0.0	1.4	0.0	7.0

Intersection Summary	
HCM 2010 Ctrl Delay	36.4
HCM 2010 LOS	D

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	742	5	5	1425	12	2	0	7	0	0	7
Future Vol, veh/h	4	742	5	5	1425	12	2	0	7	0	0	7
Conflicting Peds, #/hr	2	0	3	3	0	2	1	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	-	-	-	210	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	3	3	3	2	2	2	44	44	44	2	2	2
Mvmt Flow	5	843	6	6	1619	14	2	0	8	0	0	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1635	0	0	852	0	0	1682	2506	428	2072	2502	820
Stage 1	-	-	-	-	-	-	859	859	-	1640	1640	-
Stage 2	-	-	-	-	-	-	823	1647	-	432	862	-
Critical Hdwy	4.16	-	-	4.14	-	-	8.38	7.38	7.78	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	7.38	6.38	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	7.38	6.38	-	6.54	5.54	-
Follow-up Hdwy	2.23	-	-	2.22	-	-	3.94	4.44	3.74	3.52	4.02	3.32
Pot Cap-1 Maneuver	388	-	-	783	-	-	40	15	473	31	28	318
Stage 1	-	-	-	-	-	-	242	287	-	104	157	-
Stage 2	-	-	-	-	-	-	257	102	-	572	370	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	387	-	-	781	-	-	38	14	472	30	27	317
Mov Cap-2 Maneuver	-	-	-	-	-	-	38	14	-	30	27	-
Stage 1	-	-	-	-	-	-	236	280	-	101	155	-
Stage 2	-	-	-	-	-	-	248	101	-	549	360	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	34.3	16.6
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	133	387	-	-	781	-	-	317
HCM Lane V/C Ratio	0.077	0.012	-	-	0.007	-	-	0.025
HCM Control Delay (s)	34.3	14.4	0.2	-	9.6	-	-	16.6
HCM Lane LOS	D	B	A	-	A	-	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	122	66	305	348	35	36	360	310	50	558	166
Future Volume (veh/h)	66	122	66	305	348	35	36	360	310	50	558	166
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1845	1845	1900	1863	1863	1863	1845	1845	1845	1863	1863	1863
Adj Flow Rate, veh/h	73	134	73	335	382	38	40	396	341	55	613	182
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	2	2	2	3	3	3	2	2	2
Cap, veh/h	149	328	168	390	999	439	72	970	423	89	1013	450
Arrive On Green	0.08	0.15	0.15	0.22	0.28	0.28	0.04	0.28	0.28	0.05	0.29	0.29
Sat Flow, veh/h	1757	2228	1140	1774	3539	1555	1757	3505	1529	1774	3539	1572
Grp Volume(v), veh/h	73	104	103	335	382	38	40	396	341	55	613	182
Grp Sat Flow(s),veh/h/ln	1757	1752	1616	1774	1770	1555	1757	1752	1529	1774	1770	1572
Q Serve(g_s), s	2.3	3.2	3.4	10.7	5.1	1.1	1.3	5.4	12.2	1.8	8.8	5.5
Cycle Q Clear(g_c), s	2.3	3.2	3.4	10.7	5.1	1.1	1.3	5.4	12.2	1.8	8.8	5.5
Prop In Lane	1.00		0.71	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	258	238	390	999	439	72	970	423	89	1013	450
V/C Ratio(X)	0.49	0.40	0.44	0.86	0.38	0.09	0.56	0.41	0.81	0.62	0.60	0.40
Avail Cap(c_a), veh/h	260	536	494	467	1491	655	149	1102	481	151	1112	494
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.7	22.8	22.9	22.1	17.0	15.5	27.7	17.4	19.8	27.4	18.1	17.0
Incr Delay (d2), s/veh	2.5	1.0	1.3	13.0	0.2	0.1	6.6	0.3	8.7	6.7	0.8	0.6
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	1.2	1.6	1.6	6.6	2.5	0.5	0.8	2.6	6.1	1.0	4.4	2.4
LnGrp Delay(d),s/veh	28.2	23.8	24.1	35.0	17.2	15.6	34.4	17.6	28.6	34.1	18.9	17.5
LnGrp LOS	C	C	C	D	B	B	C	B	C	C	B	B
Approach Vol, veh/h		280			755			777			850	
Approach Delay, s/veh		25.0			25.1			23.3			19.6	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	20.8	17.4	13.2	6.9	21.4	9.5	21.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.5	15.5	18.0	5.0	18.5	8.7	24.8
Max Q Clear Time (g_c+I1), s	3.8	14.2	12.7	5.4	3.3	10.8	4.3	7.1
Green Ext Time (p_c), s	0.0	1.6	0.3	0.9	0.0	2.9	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	22.8
HCM 2010 LOS	C

Intersection												
Int Delay, s/veh	5.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	0	76	0	0	0	40	519	0	0	1106	43
Future Vol, veh/h	35	0	76	0	0	0	40	519	0	0	1106	43
Conflicting Peds, #/hr	1	0	1	1	0	1	7	0	7	7	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	5	5	5	2	2	2
Mvmt Flow	38	0	83	0	0	0	43	564	0	0	1202	47

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1602	1890	633	1259	1913	290	1256	0	0	571	0	0
Stage 1	1233	1233	-	657	657	-	-	-	-	-	-	-
Stage 2	369	657	-	602	1256	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.2	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.25	-	-	2.22	-	-
Pot Cap-1 Maneuver	71	69	422	127	67	707	533	-	-	998	-	-
Stage 1	187	247	-	420	460	-	-	-	-	-	-	-
Stage 2	623	460	-	453	241	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	64	60	419	92	58	702	530	-	-	992	-	-
Mov Cap-2 Maneuver	64	60	-	92	58	-	-	-	-	-	-	-
Stage 1	164	246	-	368	403	-	-	-	-	-	-	-
Stage 2	549	403	-	363	240	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	85.3	0	1.4	0
HCM LOS	F	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	530	-	-	152	-	992	-	-
HCM Lane V/C Ratio	0.082	-	-	0.794	-	-	-	-
HCM Control Delay (s)	12.4	0.6	-	85.3	0	0	-	-
HCM Lane LOS	B	A	-	F	A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	5	-	0	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	31	558	43	110	1053
Future Vol, veh/h	16	31	558	43	110	1053
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	7	7	2	2
Mvmt Flow	17	34	607	47	120	1145

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1448	331	0	0	658	0
Stage 1	635	-	-	-	-	-
Stage 2	813	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	122	665	-	-	926	-
Stage 1	490	-	-	-	-	-
Stage 2	396	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	78	663	-	-	923	-
Mov Cap-2 Maneuver	78	-	-	-	-	-
Stage 1	314	-	-	-	-	-
Stage 2	396	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	31.3	0	2.2
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	187	923	-
HCM Lane V/C Ratio	-	-	0.273	0.13	-
HCM Control Delay (s)	-	-	31.3	9.5	1.4
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	1.1	0.4	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	36	34	12	572	999	65
Future Vol, veh/h	36	34	12	572	999	65
Conflicting Peds, #/hr	2	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	7	7	2	2
Mvmt Flow	39	37	13	615	1074	70

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1447	574	1146	0	-	0
Stage 1	1111	-	-	-	-	-
Stage 2	336	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.24	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.27	-	-	-
Pot Cap-1 Maneuver	122	462	578	-	-	-
Stage 1	277	-	-	-	-	-
Stage 2	696	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	117	461	577	-	-	-
Mov Cap-2 Maneuver	117	-	-	-	-	-
Stage 1	267	-	-	-	-	-
Stage 2	695	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	37.5	0.4	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	577	-	184	-	-
HCM Lane V/C Ratio	0.022	-	0.409	-	-
HCM Control Delay (s)	11.4	0.2	37.5	-	-
HCM Lane LOS	B	A	E	-	-
HCM 95th %tile Q(veh)	0.1	-	1.8	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	3	85	23	45	28	500	121	68	524	279
Future Volume (veh/h)	10	0	3	85	23	45	28	500	121	68	524	279
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1652	1652	1792	1792	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	0	3	92	25	49	30	543	132	74	570	303
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	15	15	15	6	6	6	2	2	2
Cap, veh/h	216	17	24	290	51	188	493	1799	436	600	1477	785
Arrive On Green	0.14	0.00	0.14	0.14	0.14	0.14	0.66	0.66	0.66	0.66	0.66	0.66
Sat Flow, veh/h	525	126	177	1075	373	1386	608	2717	658	759	2231	1185
Grp Volume(v), veh/h	14	0	0	117	0	49	30	339	336	74	452	421
Grp Sat Flow(s),veh/h/ln	827	0	0	1449	0	1386	608	1703	1672	759	1770	1646
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	1.4	1.1	3.7	3.8	2.0	5.2	5.2
Cycle Q Clear(g_c), s	3.1	0.0	0.0	3.1	0.0	1.4	6.2	3.7	3.8	5.8	5.2	5.2
Prop In Lane	0.79		0.21	0.79		1.00	1.00		0.39	1.00		0.72
Lane Grp Cap(c), veh/h	257	0	0	341	0	188	493	1128	1107	600	1172	1090
V/C Ratio(X)	0.05	0.00	0.00	0.34	0.00	0.26	0.06	0.30	0.30	0.12	0.39	0.39
Avail Cap(c_a), veh/h	727	0	0	794	0	669	493	1128	1107	600	1172	1090
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.8	0.0	0.0	18.0	0.0	17.2	4.8	3.2	3.2	4.4	3.4	3.4
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.6	0.0	0.7	0.2	0.7	0.7	0.4	1.0	1.0
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	0.2	0.0	0.0	1.4	0.0	0.6	0.2	1.9	1.9	0.5	2.7	2.5
LnGrp Delay(d),s/veh	16.9	0.0	0.0	18.6	0.0	18.0	5.1	3.9	3.9	4.8	4.4	4.4
LnGrp LOS	B			B		B	A	A	A	A	A	A
Approach Vol, veh/h		14			166			705			947	
Approach Delay, s/veh		16.9			18.4			3.9			4.4	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		34.0		10.5		34.0		10.5
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		29.5		21.5		29.5		21.5
Max Q Clear Time (g_c+I1), s		8.2		5.1		7.8		5.1
Green Ext Time (p_c), s		4.6		0.0		6.6		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	5.6
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	241	6	220	16	3	0	361	502	9	23	389	139
Future Volume (vph)	241	6	220	16	3	0	361	502	9	23	389	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00	0.98	1.00	1.00	0.99
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	1.00	0.85		1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.96		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1649	1657	1553		1601		1736	3471	1518	1687	3374	1489
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1649	1657	1553		1667		1736	3471	1518	1687	3374	1489
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	287	7	262	19	4	0	430	598	11	27	463	165
RTOR Reduction (vph)	0	0	219	0	0	0	0	0	5	0	0	117
Lane Group Flow (vph)	146	148	43	0	23	0	430	598	6	27	463	48
Confl. Peds. (#/hr)									3			1
Heavy Vehicles (%)	4%	4%	4%	14%	14%	14%	4%	4%	4%	7%	7%	7%
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4			7		5	2		1	6	
Permitted Phases			4	7					2			6
Actuated Green, G (s)	12.0	12.0	12.0		1.7		20.4	40.0	40.0	2.0	21.6	21.6
Effective Green, g (s)	12.0	12.0	12.0		1.7		20.4	40.0	40.0	2.0	21.6	21.6
Actuated g/C Ratio	0.16	0.16	0.16		0.02		0.28	0.54	0.54	0.03	0.29	0.29
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	268	269	252		38		480	1883	823	45	988	436
v/s Ratio Prot	0.09	c0.09					c0.25	0.17		0.02	c0.14	
v/s Ratio Perm			0.03		c0.01				0.00			0.03
v/c Ratio	0.54	0.55	0.17		0.61		0.90	0.32	0.01	0.60	0.47	0.11
Uniform Delay, d1	28.3	28.4	26.6		35.7		25.6	9.3	7.7	35.5	21.3	19.0
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	2.3	2.4	0.3		24.3		18.9	0.4	0.0	19.7	1.6	0.5
Delay (s)	30.6	30.8	26.9		59.9		44.6	9.8	7.8	55.1	22.9	19.5
Level of Service	C	C	C		E		D	A	A	E	C	B
Approach Delay (s)		28.9			59.9			24.1			23.4	
Approach LOS		C			E			C			C	

Intersection Summary			
HCM 2000 Control Delay	25.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	73.7	Sum of lost time (s)	18.0
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
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)	168	257	211	233	371	90	200	405	324	145	660	271
Future Volume (vph)	168	257	211	233	371	90	200	405	324	145	660	271
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1564	3276	1515	1507	3158	1456	1752	3505	1568	1719	3438	1511
Flt Permitted	0.95	0.99	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1564	3276	1515	1507	3158	1456	1752	3505	1568	1719	3438	1511
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	200	306	251	277	442	107	238	482	386	173	786	323
RTOR Reduction (vph)	0	0	207	0	0	86	0	0	278	0	0	239
Lane Group Flow (vph)	164	342	44	233	486	21	238	482	108	173	786	84
Confl. Peds. (#/hr)			2			4						4
Heavy Vehicles (%)	5%	5%	5%	9%	9%	9%	3%	3%	3%	5%	5%	5%
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		7	7		5	2		1	6	
Permitted Phases			4			7			2			6
Actuated Green, G (s)	14.9	14.9	14.9	16.9	16.9	16.9	13.4	23.9	23.9	11.7	22.2	22.2
Effective Green, g (s)	14.9	14.9	14.9	16.9	16.9	16.9	13.4	23.9	23.9	11.7	22.2	22.2
Actuated g/C Ratio	0.17	0.17	0.17	0.20	0.20	0.20	0.16	0.28	0.28	0.14	0.26	0.26
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	272	571	264	298	624	288	274	980	438	235	893	392
v/s Ratio Prot	c0.10	0.10		c0.15	0.15		c0.14	0.14		0.10	c0.23	
v/s Ratio Perm			0.03			0.01			0.07			0.06
v/c Ratio	0.60	0.60	0.17	0.78	0.78	0.07	0.87	0.49	0.25	0.74	0.88	0.21
Uniform Delay, d1	32.5	32.5	30.0	32.5	32.5	27.9	35.1	25.7	23.8	35.4	30.3	24.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.7	1.7	0.3	12.5	6.1	0.1	24.0	0.4	0.3	11.4	10.1	0.3
Delay (s)	36.3	34.2	30.3	45.0	38.6	28.0	59.1	26.1	24.1	46.7	40.4	25.0
Level of Service	D	C	C	D	D	C	E	C	C	D	D	C
Approach Delay (s)		33.3			39.0			32.5			37.4	
Approach LOS		C			D			C			D	

Intersection Summary

HCM 2000 Control Delay	35.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	85.4	Sum of lost time (s)	18.0
Intersection Capacity Utilization	64.6%	ICU Level of Service	C
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)	0	0	0	357	34	400	21	1126	590	287	546	39
Future Volume (vph)	0	0	0	357	34	400	21	1126	590	287	546	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor				0.95	0.95	1.00	1.00	0.95	0.88	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected				0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1681	1700	1552	1770	3539	2725	1770	3499	
Flt Permitted				0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1681	1700	1552	1770	3539	2725	1770	3499	
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)	0	0	0	376	36	421	22	1185	621	302	575	41
RTOR Reduction (vph)	0	0	0	0	0	219	0	0	0	0	7	0
Lane Group Flow (vph)	0	0	0	207	205	202	22	1185	621	302	609	0
Confl. Peds. (#/hr)						7			4			1
Turn Type				Split	NA	Perm	Prot	NA	Free	Prot	NA	
Protected Phases				8	8		5	2		1	6	
Permitted Phases						8			Free			
Actuated Green, G (s)				13.1	13.1	13.1	0.8	24.4	60.5	11.0	34.6	
Effective Green, g (s)				13.1	13.1	13.1	0.8	24.4	60.5	11.0	34.6	
Actuated g/C Ratio				0.22	0.22	0.22	0.01	0.40	1.00	0.18	0.57	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)				363	368	336	23	1427	2725	321	2001	
v/s Ratio Prot				0.12	0.12		0.01	c0.33		c0.17	0.17	
v/s Ratio Perm						c0.13			0.23			
v/c Ratio				0.57	0.56	0.60	0.96	0.83	0.23	0.94	0.30	
Uniform Delay, d1				21.2	21.1	21.3	29.8	16.2	0.0	24.4	6.7	
Progression Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2				2.2	1.8	3.0	166.5	5.7	0.2	34.9	0.4	
Delay (s)				23.3	22.9	24.3	196.4	21.9	0.2	59.3	7.1	
Level of Service				C	C	C	F	C	A	E	A	
Approach Delay (s)		0.0			23.8			16.7			24.3	
Approach LOS		A			C			B			C	

Intersection Summary

HCM 2000 Control Delay	20.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	60.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	68.3%	ICU Level of Service	C
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 (veh/h)	231	736	51	67	369	211	58	577	139	154	283	70
Future Volume (veh/h)	231	736	51	67	369	211	58	577	139	154	283	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1827	1827	1827
Adj Flow Rate, veh/h	254	809	56	74	405	232	64	634	153	169	311	77
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	4	4	4
Cap, veh/h	299	1217	537	96	499	283	90	809	362	208	1033	459
Arrive On Green	0.17	0.34	0.34	0.05	0.23	0.23	0.05	0.23	0.23	0.12	0.30	0.30
Sat Flow, veh/h	1774	3539	1561	1774	2180	1235	1774	3539	1581	1740	3471	1543
Grp Volume(v), veh/h	254	809	56	74	328	309	64	634	153	169	311	77
Grp Sat Flow(s),veh/h/ln	1774	1770	1561	1774	1770	1645	1774	1770	1581	1740	1736	1543
Q Serve(g_s), s	9.8	13.8	1.7	2.9	12.4	12.6	2.5	11.9	5.9	6.7	4.9	2.6
Cycle Q Clear(g_c), s	9.8	13.8	1.7	2.9	12.4	12.6	2.5	11.9	5.9	6.7	4.9	2.6
Prop In Lane	1.00		1.00	1.00		0.75	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	299	1217	537	96	405	377	90	809	362	208	1033	459
V/C Ratio(X)	0.85	0.67	0.10	0.77	0.81	0.82	0.71	0.78	0.42	0.81	0.30	0.17
Avail Cap(c_a), veh/h	363	1318	582	153	449	418	178	949	424	258	1097	488
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.6	19.8	15.8	33.1	25.9	25.9	33.1	25.7	23.3	30.4	19.2	18.4
Incr Delay (d2), s/veh	14.7	1.1	0.1	12.2	9.7	11.3	10.0	3.7	0.8	14.7	0.2	0.2
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	6.0	6.9	0.8	1.7	7.1	6.9	1.5	6.2	2.6	4.1	2.4	1.1
LnGrp Delay(d),s/veh	43.2	20.9	15.9	45.3	35.6	37.3	43.2	29.4	24.1	45.1	19.4	18.6
LnGrp LOS	D	C	B	D	D	D	D	C	C	D	B	B
Approach Vol, veh/h		1119			711			851			557	
Approach Delay, s/veh		25.7			37.3			29.5			27.1	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	20.7	8.3	28.9	8.1	25.6	16.5	20.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	19.0	6.1	26.4	7.1	22.4	14.5	18.0
Max Q Clear Time (g_c+I1), s	8.7	13.9	4.9	15.8	4.5	6.9	11.8	14.6
Green Ext Time (p_c), s	0.1	2.1	0.0	4.2	0.0	2.0	0.2	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	29.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	675	54	284	621	71	135	541	598	66	234	12
Future Volume (veh/h)	54	675	54	284	621	71	135	541	598	66	234	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1810	1810	1810
Adj Flow Rate, veh/h	59	734	59	309	675	77	147	588	650	72	254	13
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	5	5	5
Cap, veh/h	77	815	363	345	1221	139	181	1117	499	91	917	408
Arrive On Green	0.04	0.23	0.23	0.19	0.38	0.38	0.10	0.32	0.32	0.05	0.27	0.27
Sat Flow, veh/h	1774	3539	1575	1774	3202	365	1774	3539	1582	1723	3438	1531
Grp Volume(v), veh/h	59	734	59	309	373	379	147	588	650	72	254	13
Grp Sat Flow(s),veh/h/ln	1774	1770	1575	1774	1770	1797	1774	1770	1582	1723	1719	1531
Q Serve(g_s), s	2.9	17.6	2.6	14.8	14.4	14.4	7.1	11.9	27.5	3.6	5.1	0.5
Cycle Q Clear(g_c), s	2.9	17.6	2.6	14.8	14.4	14.4	7.1	11.9	27.5	3.6	5.1	0.5
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	77	815	363	345	675	685	181	1117	499	91	917	408
V/C Ratio(X)	0.76	0.90	0.16	0.89	0.55	0.55	0.81	0.53	1.30	0.79	0.28	0.03
Avail Cap(c_a), veh/h	149	833	371	377	675	685	222	1117	499	109	917	408
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	32.6	26.8	34.2	21.1	21.1	38.3	24.5	29.8	40.8	25.3	23.6
Incr Delay (d2), s/veh	14.2	12.7	0.2	21.8	1.0	1.0	17.0	1.8	150.1	26.9	0.8	0.1
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	10.0	1.2	9.3	7.2	7.3	4.3	6.1	32.8	2.4	2.5	0.2
LnGrp Delay(d),s/veh	55.5	45.3	27.0	56.0	22.1	22.1	55.4	26.3	179.9	67.7	26.0	23.8
LnGrp LOS	E	D	C	E	C	C	E	C	F	E	C	C
Approach Vol, veh/h		852			1061			1385			339	
Approach Delay, s/veh		44.8			32.0			101.4			34.8	
Approach LOS		D			C			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	32.0	21.5	24.6	13.4	27.7	8.3	37.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	27.5	18.5	20.5	10.9	22.1	7.3	31.7
Max Q Clear Time (g_c+I1), s	5.6	29.5	16.8	19.6	9.1	7.1	4.9	16.4
Green Ext Time (p_c), s	0.0	0.0	0.2	0.5	0.1	1.4	0.0	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	61.7
HCM 2010 LOS	E

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1333	2	3	968	8	2	1	8	5	0	6
Future Vol, veh/h	4	1333	2	3	968	8	2	1	8	5	0	6
Conflicting Peds, #/hr	5	0	3	3	0	5	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	210	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	36	36	36	9	9	9
Mvmt Flow	4	1433	2	3	1041	9	2	1	9	5	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1055	0	0	1438	0	0	1972	2506	723	1784	2503	530
Stage 1	-	-	-	-	-	-	1445	1445	-	1057	1057	-
Stage 2	-	-	-	-	-	-	527	1061	-	727	1446	-
Critical Hdwy	4.14	-	-	4.14	-	-	8.22	7.22	7.62	7.68	6.68	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	7.22	6.22	-	6.68	5.68	-
Critical Hdwy Stg 2	-	-	-	-	-	-	7.22	6.22	-	6.68	5.68	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.86	4.36	3.66	3.59	4.09	3.39
Pot Cap-1 Maneuver	656	-	-	468	-	-	25	17	301	48	26	476
Stage 1	-	-	-	-	-	-	101	144	-	228	285	-
Stage 2	-	-	-	-	-	-	424	235	-	366	183	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	653	-	-	467	-	-	24	16	300	43	25	474
Mov Cap-2 Maneuver	-	-	-	-	-	-	24	16	-	43	25	-
Stage 1	-	-	-	-	-	-	98	139	-	220	282	-
Stage 2	-	-	-	-	-	-	416	233	-	342	177	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	73.6	54.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	64	653	-	-	467	-	-	85
HCM Lane V/C Ratio	0.185	0.007	-	-	0.007	-	-	0.139
HCM Control Delay (s)	73.6	10.6	0.2	-	12.8	-	-	54.1
HCM Lane LOS	F	B	A	-	B	-	-	F
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	270	93	224	258	22	144	795	506	31	405	172
Future Volume (veh/h)	163	270	93	224	258	22	144	795	506	31	405	172
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.96	1.00		0.96
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	173	287	99	238	274	23	153	846	538	33	431	183
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	225	463	156	284	749	330	192	1232	527	61	971	418
Arrive On Green	0.13	0.18	0.18	0.16	0.21	0.21	0.11	0.35	0.35	0.03	0.27	0.27
Sat Flow, veh/h	1774	2590	873	1774	3539	1561	1774	3539	1515	1774	3539	1523
Grp Volume(v), veh/h	173	194	192	238	274	23	153	846	538	33	431	183
Grp Sat Flow(s),veh/h/ln	1774	1770	1693	1774	1770	1561	1774	1770	1515	1774	1770	1523
Q Serve(g_s), s	6.1	6.5	6.8	8.4	4.3	0.8	5.4	13.2	22.5	1.2	6.5	6.4
Cycle Q Clear(g_c), s	6.1	6.5	6.8	8.4	4.3	0.8	5.4	13.2	22.5	1.2	6.5	6.4
Prop In Lane	1.00		0.52	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	225	316	303	284	749	330	192	1232	527	61	971	418
V/C Ratio(X)	0.77	0.61	0.63	0.84	0.37	0.07	0.80	0.69	1.02	0.54	0.44	0.44
Avail Cap(c_a), veh/h	296	493	472	316	1024	452	233	1232	527	137	1040	448
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	24.5	24.6	26.3	21.8	20.4	28.1	18.0	21.1	30.7	19.4	19.3
Incr Delay (d2), s/veh	8.5	1.9	2.2	16.4	0.3	0.1	14.5	1.6	44.3	7.1	0.3	0.7
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	3.5	3.3	3.3	5.4	2.1	0.3	3.5	6.7	15.7	0.7	3.2	2.8
LnGrp Delay(d),s/veh	35.8	26.4	26.8	42.8	22.1	20.5	42.7	19.7	65.4	37.8	19.7	20.1
LnGrp LOS	D	C	C	D	C	C	D	B	F	D	B	C
Approach Vol, veh/h		559			535			1537			647	
Approach Delay, s/veh		29.4			31.2			38.0			20.7	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	27.0	14.8	16.0	11.5	22.2	12.7	18.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	22.5	11.5	18.0	8.5	19.0	10.8	18.7
Max Q Clear Time (g_c+I1), s	3.2	24.5	10.4	8.8	7.4	8.5	8.1	6.3
Green Ext Time (p_c), s	0.0	0.0	0.1	1.5	0.0	2.6	0.1	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	32.0
HCM 2010 LOS	C

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	0	39	0	0	0	55	1270	0	1	505	40
Future Vol, veh/h	24	0	39	0	0	0	55	1270	0	1	505	40
Conflicting Peds, #/hr	0	0	1	1	0	0	13	0	2	2	0	13
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	5	5	5
Mvmt Flow	26	0	43	0	0	0	60	1396	0	1	555	44

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1410	2110	314	1799	2132	700	612	0	0	1398	0	0
Stage 1	592	592	-	1518	1518	-	-	-	-	-	-	-
Stage 2	818	1518	-	281	614	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.2	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.25	-	-
Pot Cap-1 Maneuver	98	50	682	50	49	382	963	-	-	470	-	-
Stage 1	460	492	-	125	180	-	-	-	-	-	-	-
Stage 2	336	180	-	702	481	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	76	35	674	37	35	381	953	-	-	469	-	-
Mov Cap-2 Maneuver	76	35	-	37	35	-	-	-	-	-	-	-
Stage 1	328	485	-	90	129	-	-	-	-	-	-	-
Stage 2	242	129	-	655	474	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	40.3	0	1.5	0
HCM LOS	E	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	953	-	-	169	-	469	-	-
HCM Lane V/C Ratio	0.063	-	-	0.41	-	0.002	-	-
HCM Control Delay (s)	9	1.2	-	40.3	0	12.7	0	-
HCM Lane LOS	A	A	-	E	A	B	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1.8	-	0	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	114	1180	54	17	551
Future Vol, veh/h	3	114	1180	54	17	551
Conflicting Peds, #/hr	0	0	0	3	3	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	3	3	4	4
Mvmt Flow	3	124	1283	59	18	599

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1652	674	0	0	1345	0
Stage 1	1316	-	-	-	-	-
Stage 2	336	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.18	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.24	-
Pot Cap-1 Maneuver	89	397	-	-	498	-
Stage 1	215	-	-	-	-	-
Stage 2	696	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	84	396	-	-	497	-
Mov Cap-2 Maneuver	84	-	-	-	-	-
Stage 1	203	-	-	-	-	-
Stage 2	696	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.2	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	362	497	-
HCM Lane V/C Ratio	-	-	0.351	0.037	-
HCM Control Delay (s)	-	-	20.2	12.5	0.3
HCM Lane LOS	-	-	C	B	A
HCM 95th %tile Q(veh)	-	-	1.5	0.1	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	57	10	23	1174	504	48
Future Vol, veh/h	57	10	23	1174	504	48
Conflicting Peds, #/hr	4	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	3	3	4	4
Mvmt Flow	63	11	25	1290	554	53

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1282	306	609	0	-	0
Stage 1	583	-	-	-	-	-
Stage 2	699	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.16	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.23	-	-	-
Pot Cap-1 Maneuver	157	690	959	-	-	-
Stage 1	521	-	-	-	-	-
Stage 2	454	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	142	689	957	-	-	-
Mov Cap-2 Maneuver	142	-	-	-	-	-
Stage 1	472	-	-	-	-	-
Stage 2	453	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	44.9	0.6	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	957	-	161	-	-
HCM Lane V/C Ratio	0.026	-	0.457	-	-
HCM Control Delay (s)	8.9	0.4	44.9	-	-
HCM Lane LOS	A	A	E	-	-
HCM 95th %tile Q(veh)	0.1	-	2.1	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	246	284	232	320	418	332	232	585	244	139	432	233
Future Volume (vph)	246	284	232	320	418	332	232	585	244	139	432	233
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	0.99	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1579	3291	1528	1535	3206	1509	1752	3505	1568	1719	3438	1518
Flt Permitted	0.95	0.99	1.00	0.95	0.99	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1579	3291	1528	1535	3206	1509	1752	3505	1568	1719	3438	1518
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	280	323	264	364	475	377	264	665	277	158	491	265
RTOR Reduction (vph)	0	0	214	0	0	265	0	0	208	0	0	211
Lane Group Flow (vph)	196	407	50	273	566	112	264	665	69	158	491	54
Confl. Peds. (#/hr)			3									1
Heavy Vehicles (%)	4%	4%	4%	7%	7%	7%	3%	3%	3%	5%	5%	5%
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		7	7		5	2		1	6	
Permitted Phases			4			7			2			6
Actuated Green, G (s)	16.0	16.0	16.0	18.8	18.8	18.8	15.0	21.2	21.2	11.0	17.2	17.2
Effective Green, g (s)	16.0	16.0	16.0	18.8	18.8	18.8	15.0	21.2	21.2	11.0	17.2	17.2
Actuated g/C Ratio	0.19	0.19	0.19	0.22	0.22	0.22	0.18	0.25	0.25	0.13	0.20	0.20
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	297	619	287	339	709	333	309	874	391	222	695	307
v/s Ratio Prot	c0.12	0.12		c0.18	0.18		c0.15	c0.19		0.09	0.14	
v/s Ratio Perm			0.03			0.07			0.04			0.04
v/c Ratio	0.66	0.66	0.17	0.81	0.80	0.34	0.85	0.76	0.18	0.71	0.71	0.17
Uniform Delay, d1	32.0	32.0	28.9	31.4	31.3	27.9	33.9	29.6	25.0	35.5	31.6	28.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.2	2.5	0.3	13.0	6.3	0.6	19.9	3.9	0.2	10.3	3.3	0.3
Delay (s)	37.2	34.5	29.2	44.4	37.6	28.5	53.9	33.5	25.3	45.8	34.8	28.3
Level of Service	D	C	C	D	D	C	D	C	C	D	C	C
Approach Delay (s)		33.5			36.3			36.1			34.8	
Approach LOS		C			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	35.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	64.3%	ICU Level of Service	C
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 (veh/h)	10	0	3	85	23	45	28	500	121	68	524	279
Future Volume (veh/h)	10	0	3	85	23	45	28	500	121	68	524	279
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1652	1652	1792	1792	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	0	3	92	25	49	30	543	132	74	570	303
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	15	15	15	6	6	6	2	2	2
Cap, veh/h	216	17	24	290	51	188	493	1799	436	600	1477	785
Arrive On Green	0.14	0.00	0.14	0.14	0.14	0.14	0.66	0.66	0.66	0.66	0.66	0.66
Sat Flow, veh/h	525	126	177	1075	373	1386	608	2717	658	759	2231	1185
Grp Volume(v), veh/h	14	0	0	117	0	49	30	339	336	74	452	421
Grp Sat Flow(s),veh/h/ln	827	0	0	1449	0	1386	608	1703	1672	759	1770	1646
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	1.4	1.1	3.7	3.8	2.0	5.2	5.2
Cycle Q Clear(g_c), s	3.1	0.0	0.0	3.1	0.0	1.4	6.2	3.7	3.8	5.8	5.2	5.2
Prop In Lane	0.79		0.21	0.79		1.00	1.00		0.39	1.00		0.72
Lane Grp Cap(c), veh/h	257	0	0	341	0	188	493	1128	1107	600	1172	1090
V/C Ratio(X)	0.05	0.00	0.00	0.34	0.00	0.26	0.06	0.30	0.30	0.12	0.39	0.39
Avail Cap(c_a), veh/h	727	0	0	794	0	669	493	1128	1107	600	1172	1090
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.8	0.0	0.0	18.0	0.0	17.2	4.8	3.2	3.2	4.4	3.4	3.4
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.6	0.0	0.7	0.2	0.7	0.7	0.4	1.0	1.0
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	0.2	0.0	0.0	1.4	0.0	0.6	0.2	1.9	1.9	0.5	2.7	2.5
LnGrp Delay(d),s/veh	16.9	0.0	0.0	18.6	0.0	18.0	5.1	3.9	3.9	4.8	4.4	4.4
LnGrp LOS	B			B		B	A	A	A	A	A	A
Approach Vol, veh/h		14			166			705			947	
Approach Delay, s/veh		16.9			18.4			3.9			4.4	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		34.0		10.5		34.0		10.5
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		29.5		21.5		29.5		21.5
Max Q Clear Time (g_c+I1), s		8.2		5.1		7.8		5.1
Green Ext Time (p_c), s		4.6		0.0		6.6		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	5.6
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	241	6	220	16	3	0	361	502	9	23	389	139
Future Volume (vph)	241	6	220	16	3	0	361	502	9	23	389	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00	0.98	1.00	1.00	0.99
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	1.00	0.85		1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.96		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1649	1657	1553		1601		1736	3471	1518	1687	3374	1489
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1649	1657	1553		1667		1736	3471	1518	1687	3374	1489
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	287	7	262	19	4	0	430	598	11	27	463	165
RTOR Reduction (vph)	0	0	219	0	0	0	0	0	5	0	0	117
Lane Group Flow (vph)	146	148	43	0	23	0	430	598	6	27	463	48
Confl. Peds. (#/hr)									3			1
Heavy Vehicles (%)	4%	4%	4%	14%	14%	14%	4%	4%	4%	7%	7%	7%
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4			7		5	2		1	6	
Permitted Phases			4	7					2			6
Actuated Green, G (s)	12.0	12.0	12.0		1.7		20.4	40.0	40.0	2.0	21.6	21.6
Effective Green, g (s)	12.0	12.0	12.0		1.7		20.4	40.0	40.0	2.0	21.6	21.6
Actuated g/C Ratio	0.16	0.16	0.16		0.02		0.28	0.54	0.54	0.03	0.29	0.29
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	268	269	252		38		480	1883	823	45	988	436
v/s Ratio Prot	0.09	c0.09					c0.25	0.17		0.02	c0.14	
v/s Ratio Perm			0.03		c0.01				0.00			0.03
v/c Ratio	0.54	0.55	0.17		0.61		0.90	0.32	0.01	0.60	0.47	0.11
Uniform Delay, d1	28.3	28.4	26.6		35.7		25.6	9.3	7.7	35.5	21.3	19.0
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	2.3	2.4	0.3		24.3		18.9	0.4	0.0	19.7	1.6	0.5
Delay (s)	30.6	30.8	26.9		59.9		44.6	9.8	7.8	55.1	22.9	19.5
Level of Service	C	C	C		E		D	A	A	E	C	B
Approach Delay (s)		28.9			59.9			24.1			23.4	
Approach LOS		C			E			C			C	

Intersection Summary

HCM 2000 Control Delay	25.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	73.7	Sum of lost time (s)	18.0
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
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)	246	284	232	320	418	332	232	585	244	139	432	233
Future Volume (vph)	246	284	232	320	418	332	232	585	244	139	432	233
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	0.99	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1579	3291	1528	1535	3206	1509	1752	3505	1568	1719	3438	1518
Flt Permitted	0.95	0.99	1.00	0.95	0.99	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1579	3291	1528	1535	3206	1509	1752	3505	1568	1719	3438	1518
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	280	323	264	364	475	377	264	665	277	158	491	265
RTOR Reduction (vph)	0	0	214	0	0	265	0	0	208	0	0	211
Lane Group Flow (vph)	196	407	50	273	566	112	264	665	69	158	491	54
Confl. Peds. (#/hr)			3									1
Heavy Vehicles (%)	4%	4%	4%	7%	7%	7%	3%	3%	3%	5%	5%	5%
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		7	7		5	2		1	6	
Permitted Phases			4			7			2			6
Actuated Green, G (s)	16.0	16.0	16.0	18.8	18.8	18.8	15.0	21.2	21.2	11.0	17.2	17.2
Effective Green, g (s)	16.0	16.0	16.0	18.8	18.8	18.8	15.0	21.2	21.2	11.0	17.2	17.2
Actuated g/C Ratio	0.19	0.19	0.19	0.22	0.22	0.22	0.18	0.25	0.25	0.13	0.20	0.20
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	297	619	287	339	709	333	309	874	391	222	695	307
v/s Ratio Prot	c0.12	0.12		c0.18	0.18		c0.15	c0.19		0.09	0.14	
v/s Ratio Perm			0.03			0.07			0.04			0.04
v/c Ratio	0.66	0.66	0.17	0.81	0.80	0.34	0.85	0.76	0.18	0.71	0.71	0.17
Uniform Delay, d1	32.0	32.0	28.9	31.4	31.3	27.9	33.9	29.6	25.0	35.5	31.6	28.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.2	2.5	0.3	13.0	6.3	0.6	19.9	3.9	0.2	10.3	3.3	0.3
Delay (s)	37.2	34.5	29.2	44.4	37.6	28.5	53.9	33.5	25.3	45.8	34.8	28.3
Level of Service	D	C	C	D	D	C	D	C	C	D	C	C
Approach Delay (s)		33.5			36.3			36.1			34.8	
Approach LOS		C			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	35.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	85.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	64.3%	ICU Level of Service	C
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 (veh/h)	46	416	80	511	866	57	45	251	244	87	549	9
Future Volume (veh/h)	46	416	80	511	866	57	45	251	244	87	549	9
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1810	1810	1810	1845	1845	1845
Adj Flow Rate, veh/h	52	467	90	574	973	64	51	282	274	98	617	10
Adj No. of Lanes	1	2	1	2	2	0	1	2	1	1	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	5	5	5	3	3	3
Cap, veh/h	81	701	312	672	1172	77	78	946	723	125	1055	471
Arrive On Green	0.05	0.20	0.20	0.20	0.35	0.35	0.05	0.28	0.28	0.07	0.30	0.30
Sat Flow, veh/h	1774	3539	1579	3442	3371	222	1723	3438	1535	1757	3505	1566
Grp Volume(v), veh/h	52	467	90	574	511	526	51	282	274	98	617	10
Grp Sat Flow(s),veh/h/ln	1774	1770	1579	1721	1770	1823	1723	1719	1535	1757	1752	1566
Q Serve(g_s), s	2.0	8.4	3.3	11.1	18.3	18.3	2.0	4.5	7.9	3.8	10.3	0.3
Cycle Q Clear(g_c), s	2.0	8.4	3.3	11.1	18.3	18.3	2.0	4.5	7.9	3.8	10.3	0.3
Prop In Lane	1.00		1.00	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	701	312	672	615	634	78	946	723	125	1055	471
V/C Ratio(X)	0.64	0.67	0.29	0.85	0.83	0.83	0.66	0.30	0.38	0.79	0.58	0.02
Avail Cap(c_a), veh/h	131	922	411	723	702	723	125	946	723	140	1055	471
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	25.6	23.6	26.8	20.7	20.7	32.4	19.8	11.8	31.6	20.5	17.0
Incr Delay (d2), s/veh	8.2	1.2	0.5	9.3	7.5	7.3	9.0	0.8	1.5	22.6	2.4	0.1
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	1.2	4.2	1.5	6.1	10.1	10.3	1.1	2.2	3.6	2.6	5.3	0.1
LnGrp Delay(d),s/veh	40.6	26.7	24.1	36.1	28.1	27.9	41.4	20.6	13.3	54.2	22.9	17.1
LnGrp LOS	D	C	C	D	C	C	D	C	B	D	C	B
Approach Vol, veh/h		609			1611			607			725	
Approach Delay, s/veh		27.5			30.9			19.0			27.0	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	23.5	18.0	18.2	7.6	25.3	7.7	28.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	19.0	14.5	18.0	5.0	19.5	5.1	27.4
Max Q Clear Time (g_c+I1), s	5.8	9.9	13.1	10.4	4.0	12.3	4.0	20.3
Green Ext Time (p_c), s	0.0	1.9	0.4	2.0	0.0	2.4	0.0	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	27.5
HCM 2010 LOS	C

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	0	76	0	0	0	40	519	0	0	1106	43
Future Vol, veh/h	35	0	76	0	0	0	40	519	0	0	1106	43
Conflicting Peds, #/hr	1	0	1	1	0	1	7	0	7	7	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	5	5	5	2	2	2
Mvmt Flow	38	0	83	0	0	0	43	564	0	0	1202	47

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1602	1890	633	1259	1913	290	1256	0	0	571	0	0
Stage 1	1233	1233	-	657	657	-	-	-	-	-	-	-
Stage 2	369	657	-	602	1256	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.2	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.25	-	-	2.22	-	-
Pot Cap-1 Maneuver	71	69	422	127	67	707	533	-	-	998	-	-
Stage 1	187	247	-	420	460	-	-	-	-	-	-	-
Stage 2	623	460	-	453	241	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	66	63	419	95	61	702	530	-	-	992	-	-
Mov Cap-2 Maneuver	66	63	-	95	61	-	-	-	-	-	-	-
Stage 1	171	246	-	384	420	-	-	-	-	-	-	-
Stage 2	572	420	-	363	240	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	47.5	0	0.9	0
HCM LOS	E	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	530	-	-	66	419	-	992	-	-
HCM Lane V/C Ratio	0.082	-	-	0.576	0.197	-	-	-	-
HCM Control Delay (s)	12.4	-	-	116.7	15.7	0	0	-	-
HCM Lane LOS	B	-	-	F	C	A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	2.4	0.7	-	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	671	54	284	621	71	135	541	598	71	234	12
Future Volume (veh/h)	58	671	54	284	621	71	135	541	598	71	234	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1810	1810	1810
Adj Flow Rate, veh/h	63	729	59	309	675	77	147	588	650	77	254	13
Adj No. of Lanes	1	2	1	2	2	0	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	5	5	5
Cap, veh/h	90	858	382	418	1003	114	180	1141	702	97	954	425
Arrive On Green	0.05	0.24	0.24	0.12	0.31	0.31	0.10	0.32	0.32	0.06	0.28	0.28
Sat Flow, veh/h	1774	3539	1575	3442	3202	365	1774	3539	1582	1723	3438	1531
Grp Volume(v), veh/h	63	729	59	309	373	379	147	588	650	77	254	13
Grp Sat Flow(s),veh/h/ln	1774	1770	1575	1721	1770	1797	1774	1770	1582	1723	1719	1531
Q Serve(g_s), s	2.4	13.7	2.1	6.1	12.8	12.8	5.7	9.4	22.5	3.1	4.0	0.4
Cycle Q Clear(g_c), s	2.4	13.7	2.1	6.1	12.8	12.8	5.7	9.4	22.5	3.1	4.0	0.4
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	858	382	418	554	563	180	1141	702	97	954	425
V/C Ratio(X)	0.70	0.85	0.15	0.74	0.67	0.67	0.82	0.52	0.93	0.79	0.27	0.03
Avail Cap(c_a), veh/h	162	911	405	615	610	619	180	1141	702	150	954	425
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.7	25.3	20.9	29.7	20.9	20.9	30.8	19.3	18.4	32.6	19.7	18.4
Incr Delay (d2), s/veh	9.6	7.4	0.2	2.6	2.6	2.5	24.4	1.7	20.0	14.2	0.7	0.1
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	1.4	7.6	0.9	3.0	6.6	6.7	4.0	4.8	15.6	1.9	2.0	0.2
LnGrp Delay(d),s/veh	42.3	32.6	21.0	32.3	23.5	23.4	55.2	20.9	38.4	46.8	20.4	18.6
LnGrp LOS	D	C	C	C	C	C	E	C	D	D	C	B
Approach Vol, veh/h		851			1061			1385			344	
Approach Delay, s/veh		32.6			26.0			32.8			26.2	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	27.0	13.0	21.4	11.6	23.9	8.0	26.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.1	20.4	12.5	18.0	7.1	19.4	6.4	24.1
Max Q Clear Time (g_c+I1), s	5.1	24.5	8.1	15.7	7.7	6.0	4.4	14.8
Green Ext Time (p_c), s	0.0	0.0	0.5	1.1	0.0	1.3	0.0	3.2

Intersection Summary	
HCM 2010 Ctrl Delay	30.1
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1338	2	3	970	9	0	0	11	0	0	6
Future Vol, veh/h	0	1338	2	3	970	9	0	0	11	0	0	6
Conflicting Peds, #/hr	5	0	3	3	0	5	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	210	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	36	36	36	9	9	9
Mvmt Flow	0	1439	2	3	1043	10	0	0	12	0	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1444	0	0	-	-	726	-	-	532
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.14	-	-	-	-	7.62	-	-	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.22	-	-	-	-	3.66	-	-	3.39
Pot Cap-1 Maneuver	0	-	-	465	-	-	0	0	299	0	0	474
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	464	-	-	-	-	298	-	-	472
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	17.6	12.7
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	298	-	-	464	-	-	472
HCM Lane V/C Ratio	0.04	-	-	0.007	-	-	0.014
HCM Control Delay (s)	17.6	-	-	12.8	-	-	12.7
HCM Lane LOS	C	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	0	39	0	0	0	55	1270	0	1	505	40
Future Vol, veh/h	24	0	39	0	0	0	55	1270	0	1	505	40
Conflicting Peds, #/hr	0	0	1	1	0	0	13	0	2	2	0	13
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	5	5	5
Mvmt Flow	26	0	43	0	0	0	60	1396	0	1	555	44

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1410	2110	314	1799	2132	700	612	0	0	1398	0	0
Stage 1	592	592	-	1518	1518	-	-	-	-	-	-	-
Stage 2	818	1518	-	281	614	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.2	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.25	-	-
Pot Cap-1 Maneuver	98	50	682	50	49	382	963	-	-	470	-	-
Stage 1	460	492	-	125	180	-	-	-	-	-	-	-
Stage 2	336	180	-	702	481	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	92	46	674	44	45	381	953	-	-	469	-	-
Mov Cap-2 Maneuver	92	46	-	44	45	-	-	-	-	-	-	-
Stage 1	426	486	-	117	168	-	-	-	-	-	-	-
Stage 2	315	168	-	655	475	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	29.2	0	0.4	0
HCM LOS	D	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	953	-	-	92	674	-	469	-	-
HCM Lane V/C Ratio	0.063	-	-	0.287	0.064	-	0.002	-	-
HCM Control Delay (s)	9	-	-	59.2	10.7	0	12.7	-	-
HCM Lane LOS	A	-	-	F	B	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	1.1	0.2	-	0	-	-

Appendix F

Level of Service

Calculations

Existing Plus Project

Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	545	17	222	18	643	263	186	1034	21
Future Volume (vph)	0	0	0	545	17	222	18	643	263	186	1034	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor				0.95	0.95	1.00	1.00	0.95	0.88	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected				0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1498	1507	1388	1577	3154	2427	1593	3174	
Flt Permitted				0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1498	1507	1388	1577	3154	2427	1593	3174	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	0	0	0	665	21	271	22	784	321	227	1261	26
RTOR Reduction (vph)	0	0	0	0	0	198	0	0	0	0	2	0
Lane Group Flow (vph)	0	0	0	346	340	73	22	784	321	227	1285	0
Confl. Peds. (#/hr)						4			6			2
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	3%	3%	3%	2%	2%	2%
Turn Type				Split	NA	Perm	Prot	NA	Free	Prot	NA	
Protected Phases				8	8		5	2		1	6	
Permitted Phases						8			Free			
Actuated Green, G (s)				16.5	16.5	16.5	0.8	21.4	61.1	11.2	31.8	
Effective Green, g (s)				16.5	16.5	16.5	0.8	21.4	61.1	11.2	31.8	
Actuated g/C Ratio				0.27	0.27	0.27	0.01	0.35	1.00	0.18	0.52	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)				404	406	374	20	1104	2427	292	1651	
v/s Ratio Prot				c0.23	0.23		0.01	0.25		c0.14	c0.40	
v/s Ratio Perm						0.05			0.13			
v/c Ratio				0.86	0.84	0.20	1.10	0.71	0.13	0.78	0.78	
Uniform Delay, d1				21.2	21.0	17.2	30.2	17.2	0.0	23.8	11.8	
Progression Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2				16.2	14.0	0.3	234.8	3.9	0.1	12.2	3.7	
Delay (s)				37.3	35.0	17.4	264.9	21.0	0.1	36.0	15.5	
Level of Service				D	C	B	F	C	A	D	B	
Approach Delay (s)		0.0			30.9			19.8			18.6	
Approach LOS		A			C			B			B	

Intersection Summary

HCM 2000 Control Delay	22.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	61.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	63.1%	ICU Level of Service	B
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 (veh/h)	116	341	71	84	514	118	62	372	70	89	758	162
Future Volume (veh/h)	116	341	71	84	514	118	62	372	70	89	758	162
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1845	1845	1900	1776	1776	1776	1863	1863	1863
Adj Flow Rate, veh/h	140	411	86	101	619	142	75	448	84	107	913	195
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	3	3	3	7	7	7	2	2	2
Cap, veh/h	169	1019	450	129	752	172	99	913	407	137	1023	455
Arrive On Green	0.10	0.29	0.29	0.07	0.27	0.27	0.06	0.27	0.27	0.08	0.29	0.29
Sat Flow, veh/h	1774	3539	1562	1757	2834	649	1691	3374	1504	1774	3539	1575
Grp Volume(v), veh/h	140	411	86	101	382	379	75	448	84	107	913	195
Grp Sat Flow(s),veh/h/ln	1774	1770	1562	1757	1752	1730	1691	1687	1504	1774	1770	1575
Q Serve(g_s), s	4.8	5.8	2.6	3.5	12.7	12.7	2.7	6.9	2.7	3.7	15.3	6.2
Cycle Q Clear(g_c), s	4.8	5.8	2.6	3.5	12.7	12.7	2.7	6.9	2.7	3.7	15.3	6.2
Prop In Lane	1.00		1.00	1.00		0.38	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	169	1019	450	129	465	459	99	913	407	137	1023	455
V/C Ratio(X)	0.83	0.40	0.19	0.79	0.82	0.82	0.76	0.49	0.21	0.78	0.89	0.43
Avail Cap(c_a), veh/h	169	1083	478	142	511	504	137	989	441	144	1037	462
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	17.7	16.6	28.1	21.3	21.3	28.6	18.9	17.4	28.0	21.0	17.8
Incr Delay (d2), s/veh	27.2	0.3	0.2	22.6	9.7	10.0	14.5	0.4	0.2	23.1	9.9	0.6
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	3.6	2.8	1.1	2.5	7.3	7.3	1.6	3.2	1.1	2.7	8.8	2.8
LnGrp Delay(d),s/veh	54.6	18.0	16.8	50.8	31.0	31.3	43.2	19.4	17.7	51.1	30.9	18.5
LnGrp LOS	D	B	B	D	C	C	D	B	B	D	C	B
Approach Vol, veh/h		637			862			607			1215	
Approach Delay, s/veh		25.9			33.4			22.1			30.7	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	21.2	9.0	22.3	8.1	22.3	10.4	20.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.1	5.0	18.9	5.0	18.1	5.9	18.0
Max Q Clear Time (g_c+I1), s	5.7	8.9	5.5	7.8	4.7	17.3	6.8	14.7
Green Ext Time (p_c), s	0.0	2.2	0.0	2.3	0.0	0.6	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	28.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	42	450	105	81	593	866	57	90	345	244	142	609
Future Volume (vph)	42	450	105	81	593	866	57	90	345	244	142	609
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00		1.00	0.95		1.00	0.95	1.00	1.00	0.95
Frpb, ped/bikes	1.00	1.00	0.98		1.00	1.00		1.00	1.00	0.98	1.00	1.00
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	1.00	0.85		1.00	0.99		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	1558		1770	3503		1719	3438	1514	1752	3505
Flt Permitted	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	1558		1770	3503		1719	3438	1514	1752	3505
Peak-hour factor, PHF	0.89	0.89	0.89	0.92	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	47	506	118	88	666	973	64	101	388	274	160	684
RTOR Reduction (vph)	0	0	100	0	0	4	0	0	0	228	0	0
Lane Group Flow (vph)	47	506	18	0	754	1033	0	101	388	46	160	684
Confl. Peds. (#/hr)			2				1			2		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	5%	5%	5%	3%	3%
Turn Type	Prot	NA	Perm	Prot	Prot	NA		Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	3	8		5	2		1	6
Permitted Phases			4							2		
Actuated Green, G (s)	6.6	18.9	18.9		51.5	63.8		7.7	20.5	20.5	12.0	24.8
Effective Green, g (s)	6.6	18.9	18.9		51.5	63.8		7.7	20.5	20.5	12.0	24.8
Actuated g/C Ratio	0.05	0.16	0.16		0.43	0.53		0.06	0.17	0.17	0.10	0.21
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	96	553	243		753	1848		109	582	256	173	718
v/s Ratio Prot	0.03	c0.14			c0.43	0.29		0.06	0.11		c0.09	c0.20
v/s Ratio Perm			0.01							0.03		
v/c Ratio	0.49	0.92	0.08		1.00	0.56		0.93	0.67	0.18	0.92	0.95
Uniform Delay, d1	55.5	50.2	43.5		34.7	19.1		56.3	47.0	43.0	54.0	47.5
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	3.9	19.8	0.1		33.1	0.4		62.7	5.9	1.6	46.8	23.8
Delay (s)	59.4	70.0	43.7		67.8	19.5		119.0	53.0	44.6	100.8	71.3
Level of Service	E	E	D		E	B		F	D	D	F	E
Approach Delay (s)		64.6				39.8			58.7			76.4
Approach LOS		E				D			E			E

Intersection Summary			
HCM 2000 Control Delay	55.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	120.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	88.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	9
Future Volume (vph)	9
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frpb, ped/bikes	0.99
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1546
Flt Permitted	1.00
Satd. Flow (perm)	1546
Peak-hour factor, PHF	0.89
Adj. Flow (vph)	10
RTOR Reduction (vph)	8
Lane Group Flow (vph)	2
Confl. Peds. (#/hr)	1
Heavy Vehicles (%)	3%
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	24.8
Effective Green, g (s)	24.8
Actuated g/C Ratio	0.21
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	317
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.01
Uniform Delay, d1	38.2
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	38.3
Level of Service	D
Approach Delay (s)	
Approach LOS	

Intersection Summary

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	742	171	0	1590	12	0	0	133	0	0	7
Future Vol, veh/h	4	742	171	0	1590	12	0	0	133	0	0	7
Conflicting Peds, #/hr	2	0	3	3	0	2	1	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	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	3	3	3	2	2	2	44	44	44	2	2	2
Mvmt Flow	5	843	194	0	1807	14	0	0	151	0	0	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1823	0	0	-	-	0	-	-	522	2248	2866	914
Stage 1	-	-	-	-	-	-	-	-	-	1816	1816	-
Stage 2	-	-	-	-	-	-	-	-	-	432	1050	-
Critical Hdwy	4.16	-	-	-	-	-	-	-	7.78	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.23	-	-	-	-	-	-	-	3.74	3.52	4.02	3.32
Pot Cap-1 Maneuver	328	-	-	0	-	-	0	0	404	23	16	276
Stage 1	-	-	-	0	-	-	0	0	-	81	128	-
Stage 2	-	-	-	0	-	-	0	0	-	572	302	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	327	-	-	-	-	-	-	-	403	14	15	275
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	14	15	-
Stage 1	-	-	-	-	-	-	-	-	-	78	128	-
Stage 2	-	-	-	-	-	-	-	-	-	344	290	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	19.2	18.5
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	403	327	-	-	-	-	275
HCM Lane V/C Ratio	0.375	0.014	-	-	-	-	0.029
HCM Control Delay (s)	19.2	16.2	0.3	-	-	-	18.5
HCM Lane LOS	C	C	A	-	-	-	C
HCM 95th %tile Q(veh)	1.7	0	-	-	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	136	66	305	365	35	36	360	310	50	558	183
Future Volume (veh/h)	80	136	66	305	365	35	36	360	310	50	558	183
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1845	1845	1900	1863	1863	1863	1845	1845	1845	1863	1863	1863
Adj Flow Rate, veh/h	88	149	73	335	401	38	40	396	341	55	613	201
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	3	3	3	2	2	2	3	3	3	2	2	2
Cap, veh/h	148	348	161	390	1012	445	71	967	422	89	1010	449
Arrive On Green	0.08	0.15	0.15	0.22	0.29	0.29	0.04	0.28	0.28	0.05	0.29	0.29
Sat Flow, veh/h	1757	2310	1072	1774	3539	1555	1757	3505	1529	1774	3539	1572
Grp Volume(v), veh/h	88	111	111	335	401	38	40	396	341	55	613	201
Grp Sat Flow(s),veh/h/ln	1757	1752	1630	1774	1770	1555	1757	1752	1529	1774	1770	1572
Q Serve(g_s), s	2.9	3.4	3.7	10.8	5.4	1.1	1.3	5.5	12.3	1.8	8.9	6.2
Cycle Q Clear(g_c), s	2.9	3.4	3.7	10.8	5.4	1.1	1.3	5.5	12.3	1.8	8.9	6.2
Prop In Lane	1.00		0.66	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	148	264	245	390	1012	445	71	967	422	89	1010	449
V/C Ratio(X)	0.59	0.42	0.45	0.86	0.40	0.09	0.56	0.41	0.81	0.62	0.61	0.45
Avail Cap(c_a), veh/h	258	532	495	464	1481	651	148	1094	477	150	1105	491
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.2	22.8	22.9	22.2	17.0	15.5	27.9	17.5	20.0	27.6	18.3	17.4
Incr Delay (d2), s/veh	3.8	1.1	1.3	13.2	0.3	0.1	6.7	0.3	9.0	6.8	0.8	0.7
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	1.5	1.7	1.8	6.6	2.7	0.5	0.8	2.7	6.3	1.1	4.5	2.8
LnGrp Delay(d),s/veh	29.9	23.9	24.2	35.5	17.3	15.6	34.6	17.8	29.0	34.3	19.1	18.1
LnGrp LOS	C	C	C	D	B	B	C	B	C	C	B	B
Approach Vol, veh/h		310			774			777			869	
Approach Delay, s/veh		25.7			25.1			23.6			19.8	
Approach LOS		C			C			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	20.8	17.5	13.4	6.9	21.4	9.5	21.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.5	15.5	18.0	5.0	18.5	8.7	24.8
Max Q Clear Time (g_c+I1), s	3.8	14.3	12.8	5.7	3.3	10.9	4.9	7.4
Green Ext Time (p_c), s	0.0	1.6	0.3	0.9	0.0	2.9	0.1	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	23.1
HCM 2010 LOS	C

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	17	76	63	14	139	40	519	77	167	1106	43
Future Vol, veh/h	35	17	76	63	14	139	40	519	77	167	1106	43
Conflicting Peds, #/hr	1	0	1	1	0	1	7	0	7	7	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	5	5	5	2	2	2
Mvmt Flow	38	18	83	68	15	151	43	564	84	182	1202	47

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1974	2338	633	1674	2319	332	1256	0	0	655	0	0
Stage 1	1597	1597	-	699	699	-	-	-	-	-	-	-
Stage 2	377	741	-	975	1620	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.2	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.25	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 37	36	422	~ 62	37	664	533	-	-	928	-	-
Stage 1	111	164	-	397	440	-	-	-	-	-	-	-
Stage 2	616	421	-	270	160	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 11	419	-	~ 11	660	530	-	-	923	-	-
Mov Cap-2 Maneuver	-	~ 11	-	-	~ 11	-	-	-	-	-	-	-
Stage 1	96	56	-	344	381	-	-	-	-	-	-	-
Stage 2	397	365	-	~ 50	55	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			1.4	3.4
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	530	-	-	-	-	923	-	-
HCM Lane V/C Ratio	0.082	-	-	-	-	0.197	-	-
HCM Control Delay (s)	12.4	0.7	-	-	-	9.9	2.5	-
HCM Lane LOS	B	A	-	-	-	A	A	-
HCM 95th %tile Q(veh)	0.3	-	-	-	-	0.7	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	31	635	43	110	1116
Future Vol, veh/h	16	31	635	43	110	1116
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	7	7	2	2
Mvmt Flow	17	34	690	47	120	1213

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1565	373	0	0	741	0
Stage 1	718	-	-	-	-	-
Stage 2	847	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	102	624	-	-	862	-
Stage 1	444	-	-	-	-	-
Stage 2	381	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	58	622	-	-	859	-
Mov Cap-2 Maneuver	58	-	-	-	-	-
Stage 1	253	-	-	-	-	-
Stage 2	381	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	43.2	0	2.5
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	144	859	-
HCM Lane V/C Ratio	-	-	0.355	0.139	-
HCM Control Delay (s)	-	-	43.2	9.9	1.8
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	1.5	0.5	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	34	12	645	1058	69
Future Vol, veh/h	40	34	12	645	1058	69
Conflicting Peds, #/hr	2	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	7	7	2	2
Mvmt Flow	43	37	13	694	1138	74

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1552	608	1214	0	-	0
Stage 1	1177	-	-	-	-	-
Stage 2	375	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.24	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.27	-	-	-
Pot Cap-1 Maneuver	104	439	543	-	-	-
Stage 1	255	-	-	-	-	-
Stage 2	665	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	100	438	542	-	-	-
Mov Cap-2 Maneuver	100	-	-	-	-	-
Stage 1	245	-	-	-	-	-
Stage 2	664	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	50.5	0.4	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	542	-	155	-	-
HCM Lane V/C Ratio	0.024	-	0.513	-	-
HCM Control Delay (s)	11.8	0.2	50.5	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.1	-	2.5	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	3	85	23	45	28	573	121	68	576	286
Future Volume (veh/h)	10	0	3	85	23	45	28	573	121	68	576	286
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1652	1652	1792	1792	1900	1863	1863	1900
Adj Flow Rate, veh/h	11	0	3	92	25	49	30	623	132	74	626	311
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	15	15	15	6	6	6	2	2	2
Cap, veh/h	216	17	24	290	51	188	468	1852	392	560	1515	753
Arrive On Green	0.14	0.00	0.14	0.14	0.14	0.14	0.66	0.66	0.66	0.66	0.66	0.66
Sat Flow, veh/h	525	126	177	1075	373	1386	572	2796	591	705	2288	1137
Grp Volume(v), veh/h	14	0	0	117	0	49	30	379	376	74	484	453
Grp Sat Flow(s),veh/h/ln	827	0	0	1449	0	1386	572	1703	1684	705	1770	1655
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	1.4	1.1	4.3	4.3	2.3	5.7	5.7
Cycle Q Clear(g_c), s	3.1	0.0	0.0	3.1	0.0	1.4	6.8	4.3	4.3	6.6	5.7	5.7
Prop In Lane	0.79		0.21	0.79		1.00	1.00		0.35	1.00		0.69
Lane Grp Cap(c), veh/h	257	0	0	341	0	188	468	1128	1115	560	1172	1096
V/C Ratio(X)	0.05	0.00	0.00	0.34	0.00	0.26	0.06	0.34	0.34	0.13	0.41	0.41
Avail Cap(c_a), veh/h	727	0	0	794	0	669	468	1128	1115	560	1172	1096
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.8	0.0	0.0	18.0	0.0	17.2	5.1	3.3	3.3	4.7	3.5	3.5
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.6	0.0	0.7	0.3	0.8	0.8	0.5	1.1	1.2
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	0.2	0.0	0.0	1.4	0.0	0.6	0.2	2.3	2.2	0.5	3.0	2.9
LnGrp Delay(d),s/veh	16.9	0.0	0.0	18.6	0.0	18.0	5.3	4.1	4.1	5.2	4.6	4.7
LnGrp LOS	B			B		B	A	A	A	A	A	A
Approach Vol, veh/h		14			166			785			1011	
Approach Delay, s/veh		16.9			18.4			4.1			4.7	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		34.0		10.5		34.0		10.5
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		29.5		21.5		29.5		21.5
Max Q Clear Time (g_c+I1), s		8.8		5.1		8.6		5.1
Green Ext Time (p_c), s		5.2		0.0		7.1		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	5.7
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	250	6	220	16	3	0	361	566	9	23	441	139
Future Volume (vph)	250	6	220	16	3	0	361	566	9	23	441	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00	0.98	1.00	1.00	0.99
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	1.00	0.85		1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.96		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1649	1657	1553		1601		1736	3471	1518	1687	3374	1489
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1649	1657	1553		1667		1736	3471	1518	1687	3374	1489
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	298	7	262	19	4	0	430	674	11	27	525	165
RTOR Reduction (vph)	0	0	219	0	0	0	0	0	5	0	0	117
Lane Group Flow (vph)	152	153	43	0	23	0	430	674	6	27	525	48
Confl. Peds. (#/hr)									3			1
Heavy Vehicles (%)	4%	4%	4%	14%	14%	14%	4%	4%	4%	7%	7%	7%
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4			7		5	2		1	6	
Permitted Phases			4	7					2			6
Actuated Green, G (s)	12.2	12.2	12.2		1.7		20.4	40.0	40.0	2.0	21.6	21.6
Effective Green, g (s)	12.2	12.2	12.2		1.7		20.4	40.0	40.0	2.0	21.6	21.6
Actuated g/C Ratio	0.17	0.17	0.17		0.02		0.28	0.54	0.54	0.03	0.29	0.29
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	272	273	256		38		479	1878	821	45	986	435
v/s Ratio Prot	0.09	c0.09					c0.25	0.19		0.02	c0.16	
v/s Ratio Perm			0.03		c0.01				0.00			0.03
v/c Ratio	0.56	0.56	0.17		0.61		0.90	0.36	0.01	0.60	0.53	0.11
Uniform Delay, d1	28.4	28.4	26.5		35.8		25.7	9.7	7.8	35.6	21.9	19.1
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	2.5	2.6	0.3		24.3		19.2	0.5	0.0	19.7	2.1	0.5
Delay (s)	30.9	31.0	26.8		60.0		44.9	10.2	7.8	55.2	24.0	19.6
Level of Service	C	C	C		E		D	B	A	E	C	B
Approach Delay (s)		29.0			60.0			23.6			24.2	
Approach LOS		C			E			C			C	

Intersection Summary

HCM 2000 Control Delay	25.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	73.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	54.0%	ICU Level of Service	A
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)	185	257	211	233	371	99	200	443	324	152	691	285
Future Volume (vph)	185	257	211	233	371	99	200	443	324	152	691	285
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1564	3270	1515	1507	3158	1456	1752	3505	1568	1719	3438	1511
Flt Permitted	0.95	0.99	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1564	3270	1515	1507	3158	1456	1752	3505	1568	1719	3438	1511
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	220	306	251	277	442	118	238	527	386	181	823	339
RTOR Reduction (vph)	0	0	206	0	0	95	0	0	278	0	0	250
Lane Group Flow (vph)	169	357	45	233	486	23	238	527	108	181	823	89
Confl. Peds. (#/hr)			2			4						4
Heavy Vehicles (%)	5%	5%	5%	9%	9%	9%	3%	3%	3%	5%	5%	5%
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		7	7		5	2		1	6	
Permitted Phases			4			7			2			6
Actuated Green, G (s)	15.4	15.4	15.4	16.9	16.9	16.9	13.4	24.1	24.1	11.9	22.6	22.6
Effective Green, g (s)	15.4	15.4	15.4	16.9	16.9	16.9	13.4	24.1	24.1	11.9	22.6	22.6
Actuated g/C Ratio	0.18	0.18	0.18	0.20	0.20	0.20	0.16	0.28	0.28	0.14	0.26	0.26
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	279	583	270	295	618	285	272	978	437	237	900	395
v/s Ratio Prot	0.11	c0.11		c0.15	0.15		c0.14	0.15		0.11	c0.24	
v/s Ratio Perm			0.03			0.02			0.07			0.06
v/c Ratio	0.61	0.61	0.17	0.79	0.79	0.08	0.88	0.54	0.25	0.76	0.91	0.22
Uniform Delay, d1	32.7	32.7	30.0	33.0	33.0	28.4	35.6	26.4	24.1	35.8	30.9	25.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.7	1.9	0.3	13.1	6.5	0.1	25.3	0.6	0.3	13.6	13.5	0.3
Delay (s)	36.3	34.6	30.3	46.1	39.5	28.5	60.9	27.0	24.4	49.4	44.4	25.3
Level of Service	D	C	C	D	D	C	E	C	C	D	D	C
Approach Delay (s)		33.6			39.8			33.1			40.3	
Approach LOS		C			D			C			D	

Intersection Summary

HCM 2000 Control Delay	36.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	86.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
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)	0	0	0	363	34	400	21	1197	596	287	616	39
Future Volume (vph)	0	0	0	363	34	400	21	1197	596	287	616	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor				0.95	0.95	1.00	1.00	0.95	0.88	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected				0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1681	1699	1552	1770	3539	2725	1770	3503	
Flt Permitted				0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1681	1699	1552	1770	3539	2725	1770	3503	
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)	0	0	0	382	36	421	22	1260	627	302	648	41
RTOR Reduction (vph)	0	0	0	0	0	217	0	0	0	0	6	0
Lane Group Flow (vph)	0	0	0	206	212	204	22	1260	627	302	683	0
Confl. Peds. (#/hr)						7			4			1
Turn Type				Split	NA	Perm	Prot	NA	Free	Prot	NA	
Protected Phases				8	8		5	2		1	6	
Permitted Phases						8			Free			
Actuated Green, G (s)				13.2	13.2	13.2	0.8	24.4	60.6	11.0	34.6	
Effective Green, g (s)				13.2	13.2	13.2	0.8	24.4	60.6	11.0	34.6	
Actuated g/C Ratio				0.22	0.22	0.22	0.01	0.40	1.00	0.18	0.57	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)				366	370	338	23	1424	2725	321	2000	
v/s Ratio Prot				0.12	0.12		0.01	c0.36		c0.17	0.19	
v/s Ratio Perm						c0.13			0.23			
v/c Ratio				0.56	0.57	0.60	0.96	0.88	0.23	0.94	0.34	
Uniform Delay, d1				21.1	21.2	21.3	29.9	16.8	0.0	24.5	6.9	
Progression Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2				2.0	2.1	3.0	166.5	8.4	0.2	34.9	0.5	
Delay (s)				23.1	23.3	24.3	196.4	25.2	0.2	59.4	7.4	
Level of Service				C	C	C	F	C	A	E	A	
Approach Delay (s)		0.0			23.8			18.9			23.2	
Approach LOS		A			C			B			C	

Intersection Summary

HCM 2000 Control Delay	21.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	60.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	70.4%	ICU Level of Service	C
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 (veh/h)	231	736	64	73	369	211	71	731	145	154	434	70
Future Volume (veh/h)	231	736	64	73	369	211	71	731	145	154	434	70
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1827	1827	1827
Adj Flow Rate, veh/h	254	809	70	80	405	232	78	803	159	169	477	77
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	4	4	4
Cap, veh/h	297	1176	519	103	486	275	100	888	397	207	1087	483
Arrive On Green	0.17	0.33	0.33	0.06	0.22	0.22	0.06	0.25	0.25	0.12	0.31	0.31
Sat Flow, veh/h	1774	3539	1560	1774	2180	1235	1774	3539	1581	1740	3471	1544
Grp Volume(v), veh/h	254	809	70	80	328	309	78	803	159	169	477	77
Grp Sat Flow(s),veh/h/ln	1774	1770	1560	1774	1770	1645	1774	1770	1581	1740	1736	1544
Q Serve(g_s), s	10.4	14.8	2.3	3.3	13.2	13.5	3.3	16.5	6.3	7.1	8.2	2.7
Cycle Q Clear(g_c), s	10.4	14.8	2.3	3.3	13.2	13.5	3.3	16.5	6.3	7.1	8.2	2.7
Prop In Lane	1.00		1.00	1.00		0.75	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	297	1176	519	103	395	367	100	888	397	207	1087	483
V/C Ratio(X)	0.86	0.69	0.13	0.78	0.83	0.84	0.78	0.90	0.40	0.82	0.44	0.16
Avail Cap(c_a), veh/h	343	1247	550	144	425	395	168	897	401	244	1087	483
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.3	21.6	17.5	34.8	27.8	27.8	34.9	27.2	23.4	32.2	20.5	18.6
Incr Delay (d2), s/veh	17.0	1.5	0.1	16.1	12.4	14.4	12.1	12.4	0.7	16.9	0.3	0.2
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	6.5	7.4	1.0	2.1	7.8	7.6	1.9	9.6	2.8	4.4	4.0	1.2
LnGrp Delay(d),s/veh	47.3	23.1	17.6	50.9	40.1	42.2	47.0	39.6	24.0	49.1	20.8	18.8
LnGrp LOS	D	C	B	D	D	D	D	D	C	D	C	B
Approach Vol, veh/h		1133			717			1040			723	
Approach Delay, s/veh		28.2			42.2			37.8			27.2	
Approach LOS		C			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.4	23.3	8.8	29.4	8.7	28.0	17.0	21.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	19.0	6.1	26.4	7.1	22.4	14.5	18.0
Max Q Clear Time (g_c+I1), s	9.1	18.5	5.3	16.8	5.3	10.2	12.4	15.5
Green Ext Time (p_c), s	0.1	0.3	0.0	4.0	0.0	2.7	0.2	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	33.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	54	719	93	121	406	621	71	264	714	598	147	323
Future Volume (vph)	54	719	93	121	406	621	71	264	714	598	147	323
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00		1.00	0.95		1.00	0.95	1.00	1.00	0.95
Frpb, ped/bikes	1.00	1.00	0.98		1.00	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	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85		1.00	0.98		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	1551		1770	3478		1770	3539	1561	1719	3438
Flt Permitted	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	1551		1770	3478		1770	3539	1561	1719	3438
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	782	101	132	441	675	77	287	776	650	160	351
RTOR Reduction (vph)	0	0	79	0	0	6	0	0	0	235	0	0
Lane Group Flow (vph)	59	782	22	0	573	746	0	287	776	415	160	351
Confl. Peds. (#/hr)			4				3			1		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	5%	5%
Turn Type	Prot	NA	Perm	Prot	Prot	NA		Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	3	8		5	2		1	6
Permitted Phases			4							2		
Actuated Green, G (s)	7.5	28.4	28.4		39.5	60.4		22.6	33.1	33.1	11.9	22.4
Effective Green, g (s)	7.5	28.4	28.4		39.5	60.4		22.6	33.1	33.1	11.9	22.4
Actuated g/C Ratio	0.06	0.22	0.22		0.30	0.46		0.17	0.25	0.25	0.09	0.17
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	101	767	336		534	1604		305	894	394	156	588
v/s Ratio Prot	0.03	c0.22			c0.32	0.21		c0.16	0.22		0.09	0.10
v/s Ratio Perm			0.01							c0.27		
v/c Ratio	0.58	1.02	0.07		1.07	0.46		0.94	0.87	1.05	1.03	0.60
Uniform Delay, d1	60.2	51.2	40.7		45.7	24.2		53.5	46.8	48.9	59.5	50.1
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	8.3	37.5	0.1		60.0	0.2		36.1	11.1	60.4	79.0	4.4
Delay (s)	68.5	88.8	40.8		105.7	24.4		89.6	58.0	109.3	138.5	54.5
Level of Service	E	F	D		F	C		F	E	F	F	D
Approach Delay (s)		82.3				59.5			82.7			79.9
Approach LOS		F				E			F			E

Intersection Summary			
HCM 2000 Control Delay	75.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	130.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	109.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	12
Future Volume (vph)	12
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frpb, ped/bikes	0.98
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1506
Flt Permitted	1.00
Satd. Flow (perm)	1506
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	13
RTOR Reduction (vph)	11
Lane Group Flow (vph)	2
Confl. Peds. (#/hr)	4
Heavy Vehicles (%)	5%
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	22.4
Effective Green, g (s)	22.4
Actuated g/C Ratio	0.17
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	257
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.01
Uniform Delay, d1	45.0
Progression Factor	1.00
Incremental Delay, d2	0.1
Delay (s)	45.1
Level of Service	D
Approach Delay (s)	
Approach LOS	

Intersection Summary

Intersection

Int Delay, s/veh 11.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1333	246	0	1211	8	0	0	244	5	0	6
Future Vol, veh/h	4	1333	246	0	1211	8	0	0	244	5	0	6
Conflicting Peds, #/hr	5	0	3	3	0	5	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	36	36	36	9	9	9
Mvmt Flow	4	1433	265	0	1302	9	0	0	262	5	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1316	0	0	-	-	0	-	-	854	2039	3021	661
Stage 1	-	-	-	-	-	-	-	-	-	1312	1312	-
Stage 2	-	-	-	-	-	-	-	-	-	727	1709	-
Critical Hdwy	4.14	-	-	-	-	-	-	-	7.62	7.68	6.68	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.68	5.68	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.68	5.68	-
Follow-up Hdwy	2.22	-	-	-	-	-	-	-	3.66	3.59	4.09	3.39
Pot Cap-1 Maneuver	521	-	-	0	-	-	0	0	~ 241	30	11	389
Stage 1	-	-	-	0	-	-	0	0	-	158	214	-
Stage 2	-	-	-	0	-	-	0	0	-	366	135	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	519	-	-	-	-	-	-	-	~ 240	-	8	387
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	8	-
Stage 1	-	-	-	-	-	-	-	-	-	113	213	-
Stage 2	-	-	-	-	-	-	-	-	-	-	97	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0	129.4	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	240	519	-	-	-	-	-
HCM Lane V/C Ratio	1.093	0.008	-	-	-	-	-
HCM Control Delay (s)	129.4	12	1.7	-	-	-	-
HCM Lane LOS	F	B	A	-	-	-	-
HCM 95th %tile Q(veh)	11.4	0	-	-	-	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	189	296	93	224	284	22	144	795	506	31	405	198
Future Volume (veh/h)	189	296	93	224	284	22	144	795	506	31	405	198
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.96	1.00		0.96
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	201	315	99	238	302	23	153	846	538	33	431	211
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	251	491	151	284	718	317	192	1221	522	61	960	413
Arrive On Green	0.14	0.18	0.18	0.16	0.20	0.20	0.11	0.34	0.34	0.03	0.27	0.27
Sat Flow, veh/h	1774	2655	819	1774	3539	1560	1774	3539	1514	1774	3539	1522
Grp Volume(v), veh/h	201	208	206	238	302	23	153	846	538	33	431	211
Grp Sat Flow(s),veh/h/ln	1774	1770	1704	1774	1770	1560	1774	1770	1514	1774	1770	1522
Q Serve(g_s), s	7.2	7.1	7.3	8.5	4.9	0.8	5.5	13.4	22.5	1.2	6.6	7.7
Cycle Q Clear(g_c), s	7.2	7.1	7.3	8.5	4.9	0.8	5.5	13.4	22.5	1.2	6.6	7.7
Prop In Lane	1.00		0.48	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	251	327	315	284	718	317	192	1221	522	61	960	413
V/C Ratio(X)	0.80	0.64	0.65	0.84	0.42	0.07	0.80	0.69	1.03	0.54	0.45	0.51
Avail Cap(c_a), veh/h	294	488	470	313	1015	447	231	1221	522	136	1031	443
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.1	24.6	24.7	26.6	22.7	21.0	28.4	18.4	21.4	31.0	19.7	20.1
Incr Delay (d2), s/veh	12.6	2.1	2.3	16.8	0.4	0.1	14.9	1.7	47.3	7.2	0.3	1.0
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	4.4	3.7	3.6	5.5	2.4	0.3	3.5	6.8	16.1	0.7	3.3	3.3
LnGrp Delay(d),s/veh	39.7	26.6	27.0	43.4	23.0	21.1	43.3	20.1	68.6	38.2	20.1	21.1
LnGrp LOS	D	C	C	D	C	C	D	C	F	D	C	C
Approach Vol, veh/h		615			563			1537			675	
Approach Delay, s/veh		31.0			31.6			39.4			21.3	
Approach LOS		C			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	27.0	14.9	16.6	11.6	22.2	13.7	17.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	22.5	11.5	18.0	8.5	19.0	10.8	18.7
Max Q Clear Time (g_c+I1), s	3.2	24.5	10.5	9.3	7.5	9.7	9.2	6.9
Green Ext Time (p_c), s	0.0	0.0	0.1	1.6	0.0	2.5	0.1	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	33.0
HCM 2010 LOS	C

Intersection												
Int Delay, s/veh	9927											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	26	39	116	26	257	55	1270	115	250	505	40
Future Vol, veh/h	24	26	39	116	26	257	55	1270	115	250	505	40
Conflicting Peds, #/hr	0	0	1	1	0	0	13	0	2	2	0	13
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	5	5	5
Mvmt Flow	26	29	43	127	29	282	60	1396	126	275	555	44

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1973	2784	314	2424	2743	763	612	0	0	1524	0	0
Stage 1	1140	1140	-	1581	1581	-	-	-	-	-	-	-
Stage 2	833	1644	-	843	1162	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.2	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.25	-	-
Pot Cap-1 Maneuver	37	~ 19	682	~ 17	~ 20	347	963	-	-	419	-	-
Stage 1	214	274	-	~ 114	167	-	-	-	-	-	-	-
Stage 2	329	156	-	325	267	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	0	0	674	~ 1	0	346	953	-	-	418	-	-
Mov Cap-2 Maneuver	0	0	-	~ 1	0	-	-	-	-	-	-	-
Stage 1	117	~ 2	-	~ 63	92	-	-	-	-	-	-	-
Stage 2	~ 23	86	-	-	~ 2	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	$ 67710.9	2	13.5
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	953	-	-	674	3	418	-	-
HCM Lane V/C Ratio	0.063	-	-	0.145	46.154	0.657	-	-
HCM Control Delay (s)	9	1.9	-	11.2	$ 67710.9	28.7	7.1	-
HCM Lane LOS	A	A	-	B	F	D	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.5	57.3	4.6	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	9927											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	26	39	116	26	257	55	1270	115	250	505	40
Future Vol, veh/h	24	26	39	116	26	257	55	1270	115	250	505	40
Conflicting Peds, #/hr	0	0	1	1	0	0	13	0	2	2	0	13
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	5	5	5
Mvmt Flow	26	29	43	127	29	282	60	1396	126	275	555	44

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1973	2784	314	2424	2743	763	612	0	0	1524	0	0
Stage 1	1140	1140	-	1581	1581	-	-	-	-	-	-	-
Stage 2	833	1644	-	843	1162	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.2	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.25	-	-
Pot Cap-1 Maneuver	37	~ 19	682	~ 17	~ 20	347	963	-	-	419	-	-
Stage 1	214	274	-	~ 114	167	-	-	-	-	-	-	-
Stage 2	329	156	-	325	267	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	0	0	674	~ 1	0	346	953	-	-	418	-	-
Mov Cap-2 Maneuver	0	0	-	~ 1	0	-	-	-	-	-	-	-
Stage 1	117	~ 2	-	~ 63	92	-	-	-	-	-	-	-
Stage 2	~ 23	86	-	-	~ 2	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	$ 67710.9	2	13.5
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	953	-	-	674	3	418	-	-
HCM Lane V/C Ratio	0.063	-	-	0.145	46.154	0.657	-	-
HCM Control Delay (s)	9	1.9	-	11.2	$ 67710.9	28.7	7.1	-
HCM Lane LOS	A	A	-	B	F	D	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.5	57.3	4.6	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	114	1295	54	17	667
Future Vol, veh/h	3	114	1295	54	17	667
Conflicting Peds, #/hr	0	0	0	3	3	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	3	3	4	4
Mvmt Flow	3	124	1408	59	18	725

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1840	737	0	0	1470	0
Stage 1	1441	-	-	-	-	-
Stage 2	399	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.18	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.24	-
Pot Cap-1 Maneuver	67	361	-	-	445	-
Stage 1	184	-	-	-	-	-
Stage 2	647	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	62	360	-	-	444	-
Mov Cap-2 Maneuver	62	-	-	-	-	-
Stage 1	171	-	-	-	-	-
Stage 2	647	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.4	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	321	444	-
HCM Lane V/C Ratio	-	-	0.396	0.042	-
HCM Control Delay (s)	-	-	23.4	13.5	0.4
HCM Lane LOS	-	-	C	B	A
HCM 95th %tile Q(veh)	-	-	1.8	0.1	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	63	10	23	1283	614	54
Future Vol, veh/h	63	10	23	1283	614	54
Conflicting Peds, #/hr	4	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	3	3	4	4
Mvmt Flow	69	11	25	1410	675	59

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1466	369	736	0	-	0
Stage 1	707	-	-	-	-	-
Stage 2	759	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.16	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.23	-	-	-
Pot Cap-1 Maneuver	119	628	859	-	-	-
Stage 1	450	-	-	-	-	-
Stage 2	423	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	103	627	858	-	-	-
Mov Cap-2 Maneuver	103	-	-	-	-	-
Stage 1	389	-	-	-	-	-
Stage 2	422	-	-	-	-	-

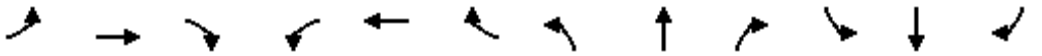
Approach	EB	NB	SB
HCM Control Delay, s	86.9	0.8	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	858	-	116	-	-
HCM Lane V/C Ratio	0.029	-	0.692	-	-
HCM Control Delay (s)	9.3	0.6	86.9	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.1	-	3.7	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	1	12	128	45	105	25	993	109	26	419	129
Future Volume (veh/h)	52	1	12	128	45	105	25	993	109	26	419	129
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1792	1792	1827	1827	1900	1845	1845	1900
Adj Flow Rate, veh/h	58	1	13	144	51	118	28	1116	122	29	471	145
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	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
Percent Heavy Veh, %	2	2	2	6	6	6	4	4	4	3	3	3
Cap, veh/h	221	16	24	344	92	309	563	1954	213	323	1636	500
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.62	0.62	0.62	0.62	0.62	0.62
Sat Flow, veh/h	458	77	118	1084	452	1515	787	3156	344	443	2643	808
Grp Volume(v), veh/h	72	0	0	195	0	118	28	613	625	29	311	305
Grp Sat Flow(s),veh/h/ln	652	0	0	1536	0	1515	787	1736	1764	443	1752	1698
Q Serve(g_s), s	2.1	0.0	0.0	0.0	0.0	3.4	0.9	10.6	10.6	2.1	4.2	4.2
Cycle Q Clear(g_c), s	7.8	0.0	0.0	5.7	0.0	3.4	5.1	10.6	10.6	12.7	4.2	4.2
Prop In Lane	0.81		0.18	0.74		1.00	1.00		0.20	1.00		0.48
Lane Grp Cap(c), veh/h	261	0	0	436	0	309	563	1075	1092	323	1085	1051
V/C Ratio(X)	0.28	0.00	0.00	0.45	0.00	0.38	0.05	0.57	0.57	0.09	0.29	0.29
Avail Cap(c_a), veh/h	488	0	0	693	0	581	563	1075	1092	323	1085	1051
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.4	0.0	0.0	18.4	0.0	17.5	5.7	5.7	5.7	9.5	4.5	4.5
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.7	0.0	0.8	0.2	2.2	2.2	0.5	0.7	0.7
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	1.0	0.0	0.0	2.6	0.0	1.5	0.2	5.6	5.7	0.3	2.2	2.2
LnGrp Delay(d),s/veh	21.0	0.0	0.0	19.1	0.0	18.3	5.9	7.9	7.9	10.0	5.2	5.2
LnGrp LOS	C			B		B	A	A	A	B	A	A
Approach Vol, veh/h		72			313			1266			645	
Approach Delay, s/veh		21.0			18.8			7.9			5.4	
Approach LOS		C			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		36.0		14.9		36.0		14.9
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		31.5		19.5		31.5		19.5
Max Q Clear Time (g_c+I1), s		12.6		9.8		14.7		7.7
Green Ext Time (p_c), s		8.7		0.2		4.0		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	9.1
HCM 2010 LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	367	0	320	40	4	8	291	722	17	15	452	109
Future Volume (vph)	367	0	320	40	4	8	291	722	17	15	452	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00	0.98	1.00	1.00	1.00
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	1.00	0.85		0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.96		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1665	1665	1568		1398		1719	3438	1500	1703	3406	1524
Flt Permitted	0.95	0.95	1.00		0.86		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1665	1665	1568		1252		1719	3438	1500	1703	3406	1524
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	399	0	348	43	4	9	316	785	18	16	491	118
RTOR Reduction (vph)	0	0	284	0	9	0	0	0	9	0	0	81
Lane Group Flow (vph)	199	200	64	0	47	0	316	785	9	16	491	37
Confl. Peds. (#/hr)									5			
Heavy Vehicles (%)	3%	3%	3%	28%	28%	28%	5%	5%	5%	6%	6%	6%
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4			7		5	2		1	6	
Permitted Phases			4	7					2			6
Actuated Green, G (s)	14.3	14.3	14.3		4.1		16.5	39.9	39.9	0.9	24.3	24.3
Effective Green, g (s)	14.3	14.3	14.3		4.1		16.5	39.9	39.9	0.9	24.3	24.3
Actuated g/C Ratio	0.19	0.19	0.19		0.05		0.21	0.52	0.52	0.01	0.31	0.31
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	308	308	290		66		367	1776	775	19	1072	479
v/s Ratio Prot	0.12	c0.12					c0.18	c0.23		0.01	0.14	
v/s Ratio Perm			0.04		c0.04				0.01			0.02
v/c Ratio	0.65	0.65	0.22		0.72		0.86	0.44	0.01	0.84	0.46	0.08
Uniform Delay, d1	29.1	29.1	26.7		36.0		29.2	11.7	9.1	38.1	21.2	18.6
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	4.6	4.7	0.4		31.1		18.3	0.8	0.0	131.7	1.4	0.3
Delay (s)	33.7	33.8	27.1		67.1		47.5	12.5	9.1	169.8	22.6	18.9
Level of Service	C	C	C		E		D	B	A	F	C	B
Approach Delay (s)		30.7			67.1			22.3			25.7	
Approach LOS		C			E			C			C	

Intersection Summary			
HCM 2000 Control Delay	26.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	77.2	Sum of lost time (s)	18.0
Intersection Capacity Utilization	52.0%	ICU Level of Service	A
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)	272	284	232	320	418	345	232	622	244	152	490	259
Future Volume (vph)	272	284	232	320	418	345	232	622	244	152	490	259
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	0.99	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1579	3286	1528	1535	3206	1509	1752	3505	1568	1719	3438	1517
Flt Permitted	0.95	0.99	1.00	0.95	0.99	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1579	3286	1528	1535	3206	1509	1752	3505	1568	1719	3438	1517
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	309	323	264	364	475	392	264	707	277	173	557	294
RTOR Reduction (vph)	0	0	214	0	0	255	0	0	207	0	0	233
Lane Group Flow (vph)	207	425	50	273	566	137	264	707	70	173	557	61
Confl. Peds. (#/hr)			3									1
Heavy Vehicles (%)	4%	4%	4%	7%	7%	7%	3%	3%	3%	5%	5%	5%
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		7	7		5	2		1	6	
Permitted Phases			4			7			2			6
Actuated Green, G (s)	16.5	16.5	16.5	18.8	18.8	18.8	15.0	21.8	21.8	11.2	18.0	18.0
Effective Green, g (s)	16.5	16.5	16.5	18.8	18.8	18.8	15.0	21.8	21.8	11.2	18.0	18.0
Actuated g/C Ratio	0.19	0.19	0.19	0.22	0.22	0.22	0.17	0.25	0.25	0.13	0.21	0.21
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	301	628	292	334	698	328	304	885	396	223	717	316
v/s Ratio Prot	c0.13	0.13		c0.18	0.18		c0.15	c0.20		0.10	0.16	
v/s Ratio Perm			0.03			0.09			0.04			0.04
v/c Ratio	0.69	0.68	0.17	0.82	0.81	0.42	0.87	0.80	0.18	0.78	0.78	0.19
Uniform Delay, d1	32.5	32.4	29.2	32.1	32.1	29.0	34.7	30.2	25.2	36.3	32.3	28.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.4	2.9	0.3	14.3	7.1	0.9	22.1	5.1	0.2	15.5	5.3	0.3
Delay (s)	38.9	35.3	29.5	46.4	39.2	29.9	56.8	35.3	25.4	51.8	37.5	28.5
Level of Service	D	D	C	D	D	C	E	D	C	D	D	C
Approach Delay (s)		34.4			37.8			37.7			37.3	
Approach LOS		C			D			D			D	

Intersection Summary

HCM 2000 Control Delay	37.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	86.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	66.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	47	445	105	81	593	866	57	90	345	244	147	609
Future Volume (vph)	47	445	105	81	593	866	57	90	345	244	147	609
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00		0.97	0.95		1.00	0.95	1.00	1.00	0.95
Frpb, ped/bikes	1.00	1.00	0.99		1.00	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	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85		1.00	0.99		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	1560		3433	3504		1719	3438	1516	1752	3505
Flt Permitted	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	1560		3433	3504		1719	3438	1516	1752	3505
Peak-hour factor, PHF	0.89	0.89	0.89	0.92	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	53	500	118	88	666	973	64	101	388	274	165	684
RTOR Reduction (vph)	0	0	91	0	0	6	0	0	0	212	0	0
Lane Group Flow (vph)	53	500	27	0	754	1031	0	101	388	62	165	684
Confl. Peds. (#/hr)			2				1			2		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	5%	5%	5%	3%	3%
Turn Type	Prot	NA	Perm	Prot	Prot	NA		Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	3	8		5	2		1	6
Permitted Phases			4							2		
Actuated Green, G (s)	3.0	18.0	18.0		17.7	32.7		5.7	18.1	18.1	8.2	20.6
Effective Green, g (s)	3.0	18.0	18.0		17.7	32.7		5.7	18.1	18.1	8.2	20.6
Actuated g/C Ratio	0.04	0.22	0.22		0.22	0.41		0.07	0.23	0.23	0.10	0.26
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	66	796	351		759	1432		122	777	342	179	902
v/s Ratio Prot	0.03	0.14			c0.22	c0.29		0.06	0.11		c0.09	c0.20
v/s Ratio Perm			0.02							0.04		
v/c Ratio	0.80	0.63	0.08		0.99	0.72		0.83	0.50	0.18	0.92	0.76
Uniform Delay, d1	38.2	28.0	24.4		31.1	19.8		36.7	27.0	25.0	35.6	27.4
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	48.8	1.6	0.1		30.9	1.8		34.8	2.3	1.2	45.2	5.9
Delay (s)	87.0	29.5	24.5		61.9	21.6		71.5	29.3	26.1	80.8	33.3
Level of Service	F	C	C		E	C		E	C	C	F	C
Approach Delay (s)		33.2				38.6			33.7			42.3
Approach LOS		C				D			C			D

Intersection Summary			
HCM 2000 Control Delay	37.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	9
Future Volume (vph)	9
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frpb, ped/bikes	0.99
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1547
Flt Permitted	1.00
Satd. Flow (perm)	1547
Peak-hour factor, PHF	0.89
Adj. Flow (vph)	10
RTOR Reduction (vph)	7
Lane Group Flow (vph)	3
Confl. Peds. (#/hr)	1
Heavy Vehicles (%)	3%
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	20.6
Effective Green, g (s)	20.6
Actuated g/C Ratio	0.26
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	398
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.01
Uniform Delay, d1	22.1
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	22.1
Level of Service	C
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	46	446	105	81	593	866	57	90	345	244	142	609
Future Volume (vph)	46	446	105	81	593	866	57	90	345	244	142	609
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00		0.97	0.95		1.00	0.95	0.88	1.00	0.95
Frpb, ped/bikes	1.00	1.00	0.99		1.00	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	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85		1.00	0.99		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	1560		3433	3504		1719	3438	2707	1752	3505
Flt Permitted	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	1560		3433	3504		1719	3438	2707	1752	3505
Peak-hour factor, PHF	0.89	0.89	0.89	0.92	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	52	501	118	88	666	973	64	101	388	274	160	684
RTOR Reduction (vph)	0	0	91	0	0	6	0	0	0	211	0	0
Lane Group Flow (vph)	52	501	27	0	754	1031	0	101	388	63	160	684
Confl. Peds. (#/hr)			2				1			2		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	5%	5%	5%	3%	3%
Turn Type	Prot	NA	Perm	Prot	Prot	NA		Prot	NA	Prot	Prot	NA
Protected Phases	7	4		3	3	8		5	2	2	1	6
Permitted Phases			4									
Actuated Green, G (s)	3.0	18.0	18.0		17.7	32.7		5.7	18.4	18.4	7.9	20.6
Effective Green, g (s)	3.0	18.0	18.0		17.7	32.7		5.7	18.4	18.4	7.9	20.6
Actuated g/C Ratio	0.04	0.22	0.22		0.22	0.41		0.07	0.23	0.23	0.10	0.26
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	66	796	351		759	1432		122	790	622	173	902
v/s Ratio Prot	0.03	0.14			c0.22	c0.29		0.06	0.11	0.02	c0.09	c0.20
v/s Ratio Perm			0.02									
v/c Ratio	0.79	0.63	0.08		0.99	0.72		0.83	0.49	0.10	0.92	0.76
Uniform Delay, d1	38.2	28.0	24.4		31.1	19.8		36.7	26.7	24.3	35.8	27.4
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	44.9	1.6	0.1		30.9	1.8		34.8	2.2	0.3	46.8	5.9
Delay (s)	83.1	29.6	24.5		61.9	21.6		71.5	28.9	24.6	82.6	33.3
Level of Service	F	C	C		E	C		E	C	C	F	C
Approach Delay (s)		32.8				38.6			33.0			42.4
Approach LOS		C				D			C			D

Intersection Summary			
HCM 2000 Control Delay	37.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	69.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	9
Future Volume (vph)	9
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frpb, ped/bikes	0.99
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1547
Flt Permitted	1.00
Satd. Flow (perm)	1547
Peak-hour factor, PHF	0.89
Adj. Flow (vph)	10
RTOR Reduction (vph)	7
Lane Group Flow (vph)	3
Confl. Peds. (#/hr)	1
Heavy Vehicles (%)	3%
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	20.6
Effective Green, g (s)	20.6
Actuated g/C Ratio	0.26
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	398
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.01
Uniform Delay, d1	22.1
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	22.1
Level of Service	C
Approach Delay (s)	
Approach LOS	

Intersection Summary

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	747	171	0	1590	12	0	0	133	0	0	7
Future Vol, veh/h	0	747	171	0	1590	12	0	0	133	0	0	7
Conflicting Peds, #/hr	2	0	3	3	0	2	1	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	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	3	3	3	2	2	2	44	44	44	2	2	2
Mvmt Flow	0	849	194	0	1807	14	0	0	151	0	0	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	525	-	-	914
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.78	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.74	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	402	0	0	276
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	401	-	-	275
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	19.3	18.5
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	401	-	-	-	-	275
HCM Lane V/C Ratio	0.377	-	-	-	-	0.029
HCM Control Delay (s)	19.3	-	-	-	-	18.5
HCM Lane LOS	C	-	-	-	-	C
HCM 95th %tile Q(veh)	1.7	-	-	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	17	76	63	14	139	40	519	77	167	1106	43
Future Volume (veh/h)	35	17	76	63	14	139	40	519	77	167	1106	43
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1863	1810	1810	1900	1863	1863	1900
Adj Flow Rate, veh/h	38	18	83	68	15	151	43	564	84	182	1202	47
Adj No. of Lanes	0	1	1	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	5	5	5	2	2	2
Cap, veh/h	113	33	473	122	15	680	61	1037	154	232	1533	60
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.04	0.35	0.35	0.13	0.44	0.44
Sat Flow, veh/h	0	110	1582	0	51	1582	1723	2999	445	1774	3471	136
Grp Volume(v), veh/h	56	0	83	83	0	151	43	323	325	182	612	637
Grp Sat Flow(s),veh/h/ln	110	0	1582	51	0	1582	1723	1719	1726	1774	1770	1838
Q Serve(g_s), s	0.0	0.0	2.1	0.0	0.0	3.2	1.3	8.1	8.1	5.3	15.8	15.8
Cycle Q Clear(g_c), s	16.0	0.0	2.1	16.0	0.0	3.2	1.3	8.1	8.1	5.3	15.8	15.8
Prop In Lane	0.68		1.00	0.82		1.00	1.00		0.26	1.00		0.07
Lane Grp Cap(c), veh/h	146	0	473	138	0	680	61	594	597	232	781	811
V/C Ratio(X)	0.38	0.00	0.18	0.60	0.00	0.22	0.71	0.54	0.55	0.78	0.78	0.78
Avail Cap(c_a), veh/h	146	0	473	138	0	680	129	642	645	398	926	961
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.6	0.0	13.9	23.8	0.0	9.6	25.5	14.1	14.1	22.5	12.8	12.8
Incr Delay (d2), s/veh	1.7	0.0	0.2	7.2	0.0	0.2	13.9	0.8	0.8	5.7	3.8	3.7
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	0.9	0.0	0.9	1.5	0.0	1.4	0.9	3.9	4.0	2.9	8.5	8.8
LnGrp Delay(d),s/veh	19.3	0.0	14.1	31.0	0.0	9.8	39.5	14.9	14.9	28.2	16.5	16.4
LnGrp LOS	B		B	C		A	D	B	B	C	B	B
Approach Vol, veh/h		139			234			691			1431	
Approach Delay, s/veh		16.2			17.3			16.4			18.0	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.0	22.5		20.0	5.9	27.6		20.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	12.0	20.0		16.0	4.0	28.0		16.0
Max Q Clear Time (g_c+I1), s	7.3	10.1		18.0	3.3	17.8		18.0
Green Ext Time (p_c), s	0.2	2.9		0.0	0.0	5.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	17.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	58	715	93	121	406	621	71	264	714	598	152	323
Future Volume (vph)	58	715	93	121	406	621	71	264	714	598	152	323
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00		0.97	0.95		1.00	0.95	1.00	1.00	0.95
Frpb, ped/bikes	1.00	1.00	0.98		1.00	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	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85		1.00	0.98		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	1555		3433	3479		1770	3539	1562	1719	3438
Flt Permitted	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	1555		3433	3479		1770	3539	1562	1719	3438
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	63	777	101	132	441	675	77	287	776	650	165	351
RTOR Reduction (vph)	0	0	79	0	0	9	0	0	0	123	0	0
Lane Group Flow (vph)	63	777	22	0	573	743	0	287	776	527	165	351
Confl. Peds. (#/hr)			4				3			1		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	5%	5%
Turn Type	Prot	NA	Perm	Prot	Prot	NA		Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	3	8		5	2		1	6
Permitted Phases			4							2		
Actuated Green, G (s)	4.9	19.8	19.8		14.6	29.5		17.1	29.6	29.6	8.9	21.4
Effective Green, g (s)	4.9	19.8	19.8		14.6	29.5		17.1	29.6	29.6	8.9	21.4
Actuated g/C Ratio	0.05	0.22	0.22		0.16	0.32		0.19	0.33	0.33	0.10	0.24
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	95	770	338		551	1129		332	1152	508	168	809
v/s Ratio Prot	0.04	c0.22			c0.17	0.21		c0.16	0.22		0.10	0.10
v/s Ratio Perm			0.01							c0.34		
v/c Ratio	0.66	1.01	0.07		1.04	0.66		0.86	0.67	1.04	0.98	0.43
Uniform Delay, d1	42.2	35.6	28.2		38.2	26.4		35.8	26.5	30.7	40.9	29.6
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	16.1	34.7	0.1		49.1	1.4		20.2	3.2	50.1	63.8	1.7
Delay (s)	58.2	70.2	28.3		87.3	27.8		55.9	29.6	80.7	104.7	31.3
Level of Service	E	E	C		F	C		E	C	F	F	C
Approach Delay (s)		64.9				53.5			53.4			54.1
Approach LOS		E				D			D			D

Intersection Summary			
HCM 2000 Control Delay	55.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	90.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	95.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	12
Future Volume (vph)	12
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frpb, ped/bikes	0.98
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1511
Flt Permitted	1.00
Satd. Flow (perm)	1511
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	13
RTOR Reduction (vph)	10
Lane Group Flow (vph)	3
Confl. Peds. (#/hr)	4
Heavy Vehicles (%)	5%
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	21.4
Effective Green, g (s)	21.4
Actuated g/C Ratio	0.24
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	355
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.01
Uniform Delay, d1	26.6
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	26.7
Level of Service	C
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	58	715	93	121	406	621	71	264	714	598	147	323
Future Volume (vph)	58	715	93	121	406	621	71	264	714	598	147	323
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00		0.97	0.95		1.00	0.95	0.88	1.00	0.95
Frpb, ped/bikes	1.00	1.00	0.98		1.00	1.00		1.00	1.00	0.98	1.00	1.00
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	1.00	0.85		1.00	0.98		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	1555		3433	3479		1770	3539	2724	1719	3438
Flt Permitted	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	1555		3433	3479		1770	3539	2724	1719	3438
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	63	777	101	132	441	675	77	287	776	650	160	351
RTOR Reduction (vph)	0	0	77	0	0	9	0	0	0	194	0	0
Lane Group Flow (vph)	63	777	24	0	573	743	0	287	776	456	160	351
Confl. Peds. (#/hr)			4				3			1		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	5%	5%
Turn Type	Prot	NA	Perm	Prot	Prot	NA		Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	3	8		5	2		1	6
Permitted Phases			4							2		
Actuated Green, G (s)	6.7	21.7	21.7		16.0	31.0		15.6	25.7	25.7	9.5	19.6
Effective Green, g (s)	6.7	21.7	21.7		16.0	31.0		15.6	25.7	25.7	9.5	19.6
Actuated g/C Ratio	0.07	0.24	0.24		0.18	0.34		0.17	0.28	0.28	0.10	0.22
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	130	844	371		604	1186		303	1000	770	179	741
v/s Ratio Prot	0.04	c0.22			c0.17	0.21		c0.16	c0.22		0.09	0.10
v/s Ratio Perm			0.02							0.17		
v/c Ratio	0.48	0.92	0.06		0.95	0.63		0.95	0.78	0.59	0.89	0.47
Uniform Delay, d1	40.4	33.8	26.8		37.0	25.1		37.2	30.0	28.1	40.2	31.1
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	2.8	15.1	0.1		24.3	1.0		37.4	5.9	3.3	38.6	2.2
Delay (s)	43.3	48.9	26.8		61.3	26.1		74.7	35.8	31.4	78.8	33.3
Level of Service	D	D	C		E	C		E	D	C	E	C
Approach Delay (s)		46.2				41.4			40.7			47.1
Approach LOS		D				D			D			D

Intersection Summary			
HCM 2000 Control Delay	42.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	90.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	79.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	12
Future Volume (vph)	12
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frpb, ped/bikes	0.98
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1511
Flt Permitted	1.00
Satd. Flow (perm)	1511
Peak-hour factor, PHF	0.92
Adj. Flow (vph)	13
RTOR Reduction (vph)	10
Lane Group Flow (vph)	3
Confl. Peds. (#/hr)	4
Heavy Vehicles (%)	5%
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	19.6
Effective Green, g (s)	19.6
Actuated g/C Ratio	0.22
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	325
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.01
Uniform Delay, d1	28.0
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	28.1
Level of Service	C
Approach Delay (s)	
Approach LOS	

Intersection Summary

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1338	246	0	1211	8	0	0	244	0	0	6
Future Vol, veh/h	0	1338	246	0	1211	8	0	0	244	0	0	6
Conflicting Peds, #/hr	5	0	3	3	0	5	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	9	9	9
Mvmt Flow	0	1439	265	0	1302	9	0	0	262	0	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	857	-	-	661
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.94	-	-	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.32	-	-	3.39
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	301	0	0	389
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	300	-	-	387
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	63.1	14.5
HCM LOS			F	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	300	-	-	-	-	387
HCM Lane V/C Ratio	0.875	-	-	-	-	0.017
HCM Control Delay (s)	63.1	-	-	-	-	14.5
HCM Lane LOS	F	-	-	-	-	B
HCM 95th %tile Q(veh)	7.8	-	-	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	26	39	116	26	257	55	1270	115	250	505	40
Future Volume (veh/h)	24	26	39	116	26	257	55	1270	115	250	505	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1863	1863	1863	1900	1810	1810	1900
Adj Flow Rate, veh/h	26	29	43	127	29	282	60	1396	126	275	555	44
Adj No. of Lanes	0	1	1	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	5	5	5
Cap, veh/h	67	52	320	83	11	601	77	1536	138	306	1942	154
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.04	0.47	0.47	0.18	0.60	0.60
Sat Flow, veh/h	0	258	1581	0	53	1581	1774	3281	295	1723	3225	255
Grp Volume(v), veh/h	55	0	43	156	0	282	60	750	772	275	295	304
Grp Sat Flow(s),veh/h/ln	258	0	1581	53	0	1581	1774	1770	1806	1723	1719	1761
Q Serve(g_s), s	0.0	0.0	1.8	0.0	0.0	10.6	2.6	30.9	31.4	12.3	6.5	6.5
Cycle Q Clear(g_c), s	16.0	0.0	1.8	16.0	0.0	10.6	2.6	30.9	31.4	12.3	6.5	6.5
Prop In Lane	0.47		1.00	0.81		1.00	1.00		0.16	1.00		0.14
Lane Grp Cap(c), veh/h	119	0	320	93	0	601	77	828	845	306	1035	1061
V/C Ratio(X)	0.46	0.00	0.13	1.67	0.00	0.47	0.78	0.90	0.91	0.90	0.29	0.29
Avail Cap(c_a), veh/h	119	0	320	93	0	601	157	852	869	306	1035	1061
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.1	0.0	25.8	37.7	0.0	18.5	37.4	19.4	19.5	31.8	7.5	7.6
Incr Delay (d2), s/veh	2.7	0.0	0.2	343.0	0.0	0.6	15.7	12.9	13.8	27.7	0.1	0.1
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	1.1	0.0	0.8	10.9	0.0	4.7	1.6	18.0	18.7	8.2	3.1	3.2
LnGrp Delay(d),s/veh	29.8	0.0	26.0	380.7	0.0	19.0	53.1	32.3	33.3	59.5	7.7	7.7
LnGrp LOS	C		C	F		B	D	C	C	E	A	A
Approach Vol, veh/h		98			438			1582			874	
Approach Delay, s/veh		28.1			147.8			33.6			24.0	
Approach LOS		C			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.0	41.0		20.0	7.4	51.5		20.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	14.0	38.0		16.0	7.0	45.0		16.0
Max Q Clear Time (g_c+I1), s	14.3	33.4		18.0	4.6	8.5		18.0
Green Ext Time (p_c), s	0.0	3.6		0.0	0.0	4.1		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		47.3
HCM 2010 LOS		D

Appendix G

Level of Service

Calculations

Cumulative Without Project

Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	574	17	204	18	880	300	211	1377	21
Future Volume (vph)	0	0	0	574	17	204	18	880	300	211	1377	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor				0.95	0.95	1.00	1.00	0.95	0.88	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected				0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1498	1506	1388	1577	3154	2427	1593	3177	
Flt Permitted				0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1498	1506	1388	1577	3154	2427	1593	3177	
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	0	0	0	683	20	243	21	1048	357	251	1639	25
RTOR Reduction (vph)	0	0	0	0	0	177	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	0	348	355	66	21	1048	357	251	1663	0
Confl. Peds. (#/hr)						4			6			2
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	3%	3%	3%	2%	2%	2%
Turn Type				Split	NA	Perm	Prot	NA	Free	Prot	NA	
Protected Phases				8	8		5	2		1	6	
Permitted Phases						8			Free			
Actuated Green, G (s)				16.7	16.7	16.7	0.8	21.3	61.5	11.5	32.0	
Effective Green, g (s)				16.7	16.7	16.7	0.8	21.3	61.5	11.5	32.0	
Actuated g/C Ratio				0.27	0.27	0.27	0.01	0.35	1.00	0.19	0.52	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)				406	408	376	20	1092	2427	297	1653	
v/s Ratio Prot				0.23	c0.24		0.01	0.33		c0.16	c0.52	
v/s Ratio Perm						0.05			0.15			
v/c Ratio				0.86	0.87	0.18	1.05	0.96	0.15	0.85	1.01	
Uniform Delay, d1				21.3	21.4	17.1	30.4	19.7	0.0	24.1	14.8	
Progression Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2				16.2	17.9	0.2	217.8	19.1	0.1	19.3	23.5	
Delay (s)				37.4	39.3	17.4	248.1	38.8	0.1	43.4	38.3	
Level of Service				D	D	B	F	D	A	D	D	
Approach Delay (s)		0.0			33.0			32.2			39.0	
Approach LOS		A			C			C			D	

Intersection Summary

HCM 2000 Control Delay	35.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	61.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	74.5%	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 (veh/h)	130	416	244	134	563	92	108	577	56	58	838	153
Future Volume (veh/h)	130	416	244	134	563	92	108	577	56	58	838	153
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1845	1845	1900	1776	1776	1776	1863	1863	1863
Adj Flow Rate, veh/h	153	489	287	158	662	108	127	679	66	68	986	180
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	3	3	3	7	7	7	2	2	2
Cap, veh/h	164	977	431	138	791	129	133	1038	463	97	1006	448
Arrive On Green	0.09	0.28	0.28	0.08	0.26	0.26	0.08	0.31	0.31	0.05	0.28	0.28
Sat Flow, veh/h	1774	3539	1561	1757	3018	492	1691	3374	1505	1774	3539	1575
Grp Volume(v), veh/h	153	489	287	158	384	386	127	679	66	68	986	180
Grp Sat Flow(s),veh/h/ln	1774	1770	1561	1757	1752	1758	1691	1687	1505	1774	1770	1575
Q Serve(g_s), s	5.5	7.4	10.4	5.0	13.2	13.2	4.8	11.1	2.0	2.4	17.6	5.9
Cycle Q Clear(g_c), s	5.5	7.4	10.4	5.0	13.2	13.2	4.8	11.1	2.0	2.4	17.6	5.9
Prop In Lane	1.00		1.00	1.00		0.28	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	977	431	138	459	461	133	1038	463	97	1006	448
V/C Ratio(X)	0.93	0.50	0.67	1.15	0.84	0.84	0.96	0.65	0.14	0.70	0.98	0.40
Avail Cap(c_a), veh/h	164	1050	463	138	495	497	133	1038	463	139	1006	448
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	19.4	20.4	29.3	22.2	22.2	29.2	19.1	16.0	29.6	22.6	18.4
Incr Delay (d2), s/veh	50.3	0.4	3.3	121.1	11.3	11.4	64.6	1.5	0.1	8.7	23.6	0.6
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	4.9	3.7	4.9	7.0	7.7	7.8	4.6	5.3	0.8	1.4	11.8	2.6
LnGrp Delay(d),s/veh	79.0	19.8	23.7	150.4	33.5	33.6	93.8	20.6	16.1	38.2	46.2	19.0
LnGrp LOS	E	B	C	F	C	C	F	C	B	D	D	B
Approach Vol, veh/h		929			928			872			1234	
Approach Delay, s/veh		30.7			53.4			30.9			41.8	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	24.1	9.5	22.1	9.5	22.6	10.4	21.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.1	5.0	18.9	5.0	18.1	5.9	18.0
Max Q Clear Time (g_c+I1), s	4.4	13.1	7.0	12.4	6.8	19.6	7.5	15.2
Green Ext Time (p_c), s	0.0	2.1	0.0	2.4	0.0	0.0	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	39.5
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	469	85	656	832	91	50	560	220	154	920	12
Future Volume (veh/h)	45	469	85	656	832	91	50	560	220	154	920	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1810	1810	1810	1845	1845	1845
Adj Flow Rate, veh/h	50	521	94	729	924	101	56	622	244	171	1022	13
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	5	5	5	3	3	3
Cap, veh/h	71	637	284	596	1531	167	73	732	327	116	829	371
Arrive On Green	0.04	0.18	0.18	0.34	0.48	0.48	0.04	0.21	0.21	0.07	0.24	0.24
Sat Flow, veh/h	1774	3539	1578	1774	3218	352	1723	3438	1534	1757	3505	1566
Grp Volume(v), veh/h	50	521	94	729	508	517	56	622	244	171	1022	13
Grp Sat Flow(s),veh/h/ln	1774	1770	1578	1774	1770	1800	1723	1719	1534	1757	1752	1566
Q Serve(g_s), s	2.4	12.4	4.6	29.5	18.5	18.5	2.8	15.3	13.1	5.8	20.8	0.6
Cycle Q Clear(g_c), s	2.4	12.4	4.6	29.5	18.5	18.5	2.8	15.3	13.1	5.8	20.8	0.6
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	71	637	284	596	842	857	73	732	327	116	829	371
V/C Ratio(X)	0.70	0.82	0.33	1.22	0.60	0.60	0.77	0.85	0.75	1.47	1.23	0.04
Avail Cap(c_a), veh/h	133	726	324	596	842	857	98	732	327	116	829	371
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	34.6	31.4	29.1	16.9	16.9	41.6	33.2	32.3	41.0	33.5	25.8
Incr Delay (d2), s/veh	11.8	6.6	0.7	114.8	1.2	1.2	21.8	11.8	14.4	253.5	114.9	0.2
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	1.4	6.7	2.0	33.2	9.3	9.5	1.8	8.5	6.8	10.9	23.1	0.3
LnGrp Delay(d),s/veh	53.5	41.2	32.1	143.9	18.1	18.1	63.4	45.0	46.8	294.5	148.4	26.0
LnGrp LOS	D	D	C	F	B	B	E	D	D	F	F	C
Approach Vol, veh/h		665			1754			922			1206	
Approach Delay, s/veh		40.8			70.4			46.6			167.8	
Approach LOS		D			E			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	23.2	34.0	20.3	8.2	25.3	8.0	46.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.8	18.7	29.5	18.0	5.0	19.5	6.6	40.9
Max Q Clear Time (g_c+I1), s	7.8	17.3	31.5	14.4	4.8	22.8	4.4	20.5
Green Ext Time (p_c), s	0.0	0.8	0.0	1.3	0.0	0.0	0.0	7.0

Intersection Summary	
HCM 2010 Ctrl Delay	87.1
HCM 2010 LOS	F

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	834	5	5	1570	12	2	0	7	0	0	7
Future Vol, veh/h	4	834	5	5	1570	12	2	0	7	0	0	7
Conflicting Peds, #/hr	2	0	3	3	0	2	1	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	-	-	-	210	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	2	2	2	44	44	44	2	2	2
Mvmt Flow	4	927	6	6	1744	13	2	0	8	0	0	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1759	0	0	936	0	0	1826	2712	470	2237	2709	882
Stage 1	-	-	-	-	-	-	941	941	-	1765	1765	-
Stage 2	-	-	-	-	-	-	885	1771	-	472	944	-
Critical Hdwy	4.16	-	-	4.14	-	-	8.38	7.38	7.78	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	7.38	6.38	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	7.38	6.38	-	6.54	5.54	-
Follow-up Hdwy	2.23	-	-	2.22	-	-	3.94	4.44	3.74	3.52	4.02	3.32
Pot Cap-1 Maneuver	347	-	-	727	-	-	30	11	441	23	21	289
Stage 1	-	-	-	-	-	-	213	259	-	87	136	-
Stage 2	-	-	-	-	-	-	232	86	-	542	339	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	346	-	-	725	-	-	28	11	440	22	20	288
Mov Cap-2 Maneuver	-	-	-	-	-	-	28	11	-	22	20	-
Stage 1	-	-	-	-	-	-	207	252	-	85	135	-
Stage 2	-	-	-	-	-	-	224	85	-	520	330	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	43.7	17.8
HCM LOS			E	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	103	346	-	-	725	-	-	288
HCM Lane V/C Ratio	0.097	0.013	-	-	0.008	-	-	0.027
HCM Control Delay (s)	43.7	15.5	0.2	-	10	-	-	17.8
HCM Lane LOS	E	C	A	-	B	-	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	167	170	110	425	400	30	110	417	420	70	638	331
Future Volume (veh/h)	167	170	110	425	400	30	110	417	420	70	638	331
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1845	1845	1900	1863	1863	1863	1845	1845	1845	1863	1863	1863
Adj Flow Rate, veh/h	180	183	118	457	430	32	118	448	452	75	686	356
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	2	2	2	3	3	3	2	2	2
Cap, veh/h	227	341	208	408	939	412	130	989	432	99	934	414
Arrive On Green	0.13	0.16	0.16	0.23	0.27	0.27	0.07	0.28	0.28	0.06	0.26	0.26
Sat Flow, veh/h	1757	2079	1267	1774	3539	1553	1757	3505	1530	1774	3539	1571
Grp Volume(v), veh/h	180	153	148	457	430	32	118	448	452	75	686	356
Grp Sat Flow(s),veh/h/ln	1757	1752	1593	1774	1770	1553	1757	1752	1530	1774	1770	1571
Q Serve(g_s), s	6.7	5.4	5.8	15.5	6.8	1.0	4.5	7.1	19.0	2.8	11.9	14.5
Cycle Q Clear(g_c), s	6.7	5.4	5.8	15.5	6.8	1.0	4.5	7.1	19.0	2.8	11.9	14.5
Prop In Lane	1.00		0.80	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	227	288	262	408	939	412	130	989	432	99	934	414
V/C Ratio(X)	0.79	0.53	0.57	1.12	0.46	0.08	0.90	0.45	1.05	0.75	0.73	0.86
Avail Cap(c_a), veh/h	227	469	426	408	1304	572	130	989	432	132	973	432
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	25.8	25.9	25.9	20.7	18.5	30.9	19.9	24.2	31.3	22.6	23.6
Incr Delay (d2), s/veh	17.3	1.5	1.9	80.9	0.3	0.1	50.8	0.3	56.2	15.8	2.8	15.4
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	4.3	2.7	2.7	16.7	3.4	0.5	4.0	3.5	14.7	1.8	6.2	8.1
LnGrp Delay(d),s/veh	45.8	27.3	27.9	106.8	21.0	18.6	81.7	20.2	80.4	47.1	25.4	39.0
LnGrp LOS	D	C	C	F	C	B	F	C	F	D	C	D
Approach Vol, veh/h		481			919			1018			1117	
Approach Delay, s/veh		34.4			63.6			54.1			31.2	
Approach LOS		C			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	23.5	20.0	15.6	9.5	22.3	13.2	22.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.5	15.5	18.0	5.0	18.5	8.7	24.8
Max Q Clear Time (g_c+I1), s	4.8	21.0	17.5	7.8	6.5	16.5	8.7	8.8
Green Ext Time (p_c), s	0.0	0.0	0.0	1.2	0.0	1.2	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	46.6
HCM 2010 LOS	D

Intersection												
Int Delay, s/veh	52.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	0	82	0	0	0	45	785	0	0	1589	52
Future Vol, veh/h	45	0	82	0	0	0	45	785	0	0	1589	52
Conflicting Peds, #/hr	1	0	1	1	0	1	7	0	7	7	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	5	5	5	2	2	2
Mvmt Flow	48	0	87	0	0	0	48	835	0	0	1690	55

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2240	2663	881	1784	2690	426	1752	0	0	842	0	0
Stage 1	1725	1725	-	938	938	-	-	-	-	-	-	-
Stage 2	515	938	-	846	1752	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.2	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.25	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 23	22	290	52	21	577	341	-	-	789	-	-
Stage 1	92	142	-	284	341	-	-	-	-	-	-	-
Stage 2	511	341	-	323	138	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 18	16	288	29	15	573	339	-	-	784	-	-
Mov Cap-2 Maneuver	~ 18	16	-	29	15	-	-	-	-	-	-	-
Stage 1	67	141	-	208	250	-	-	-	-	-	-	-
Stage 2	376	250	-	225	137	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 1060.8	0	2.9	0
HCM LOS	F	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	339	-	-	46	-	784	-	-
HCM Lane V/C Ratio	0.141	-	-	2.937	-	-	-	-
HCM Control Delay (s)	17.4	2.1	-	$ 1060.8	0	0	-	-
HCM Lane LOS	C	A	-	F	A	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	14.6	-	0	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	35	805	40	140	1550
Future Vol, veh/h	20	35	805	40	140	1550
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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	7	7	2	2
Mvmt Flow	21	37	856	43	149	1649

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2005	454	0	0	903	0
Stage 1	882	-	-	-	-	-
Stage 2	1123	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	52	553	-	-	749	-
Stage 1	365	-	-	-	-	-
Stage 2	273	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	0	551	-	-	747	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	273	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.3	0	5.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	551	747	-
HCM Lane V/C Ratio	-	-	0.106	0.199	-
HCM Control Delay (s)	-	-	12.3	11	4.7
HCM Lane LOS	-	-	B	B	A
HCM 95th %tile Q(veh)	-	-	0.4	0.7	-

Intersection						
Int Delay, s/veh	10.5					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	45	44	15	800	1485	85
Future Vol, veh/h	45	44	15	800	1485	85
Conflicting Peds, #/hr	2	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	7	7	2	2
Mvmt Flow	47	46	16	842	1563	89

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2065	828	1654	0	-	0
Stage 1	1610	-	-	-	-	-
Stage 2	455	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.24	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.27	-	-	-
Pot Cap-1 Maneuver	~ 47	314	364	-	-	-
Stage 1	149	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 43	313	363	-	-	-
Mov Cap-2 Maneuver	~ 43	-	-	-	-	-
Stage 1	136	-	-	-	-	-
Stage 2	605	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	282.6	0.9	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	363	-	75	-	-
HCM Lane V/C Ratio	0.043	-	1.249	-	-
HCM Control Delay (s)	15.4	0.6	282.6	-	-
HCM Lane LOS	C	A	F	-	-
HCM 95th %tile Q(veh)	0.1	-	7.2	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	0	5	90	25	50	30	713	125	120	690	400
Future Volume (veh/h)	12	0	5	90	25	50	30	713	125	120	690	400
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1652	1652	1792	1792	1900	1863	1863	1900
Adj Flow Rate, veh/h	13	0	5	96	27	53	32	759	133	128	734	426
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	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
Percent Heavy Veh, %	2	2	2	15	15	15	6	6	6	2	2	2
Cap, veh/h	206	22	34	294	54	196	384	1905	334	493	1419	821
Arrive On Green	0.14	0.00	0.14	0.14	0.14	0.14	0.66	0.66	0.66	0.66	0.66	0.66
Sat Flow, veh/h	482	153	244	1067	384	1386	464	2895	507	620	2157	1247
Grp Volume(v), veh/h	18	0	0	123	0	53	32	446	446	128	602	558
Grp Sat Flow(s),veh/h/ln	878	0	0	1451	0	1386	464	1703	1700	620	1770	1635
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	1.5	1.7	5.4	5.4	5.4	7.9	8.0
Cycle Q Clear(g_c), s	3.3	0.0	0.0	3.2	0.0	1.5	9.7	5.4	5.4	10.9	7.9	8.0
Prop In Lane	0.72		0.28	0.78		1.00	1.00		0.30	1.00		0.76
Lane Grp Cap(c), veh/h	262	0	0	348	0	196	384	1121	1118	493	1164	1076
V/C Ratio(X)	0.07	0.00	0.00	0.35	0.00	0.27	0.08	0.40	0.40	0.26	0.52	0.52
Avail Cap(c_a), veh/h	724	0	0	790	0	665	384	1121	1118	493	1164	1076
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.8	0.0	0.0	17.9	0.0	17.2	6.5	3.6	3.6	6.1	4.0	4.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.6	0.0	0.7	0.4	1.1	1.1	1.3	1.6	1.8
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	0.2	0.0	0.0	1.5	0.0	0.6	0.3	2.8	2.8	1.1	4.2	3.9
LnGrp Delay(d),s/veh	16.9	0.0	0.0	18.5	0.0	17.9	6.9	4.6	4.6	7.3	5.6	5.8
LnGrp LOS	B			B		B	A	A	A	A	A	A
Approach Vol, veh/h		18			176			924			1288	
Approach Delay, s/veh		16.9			18.3			4.7			5.9	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		34.0		10.8		34.0		10.8
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		29.5		21.5		29.5		21.5
Max Q Clear Time (g_c+I1), s		11.7		5.3		12.9		5.2
Green Ext Time (p_c), s		6.0		0.0		8.6		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	6.4
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	249	6	269	16	3	0	488	624	9	23	524	136
Future Volume (vph)	249	6	269	16	3	0	488	624	9	23	524	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00	0.98	1.00	1.00	0.99
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	1.00	0.85		1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.96		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1649	1657	1553		1598		1736	3471	1518	1687	3374	1489
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1649	1657	1553		1667		1736	3471	1518	1687	3374	1489
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	290	7	313	19	3	0	567	726	10	27	609	158
RTOR Reduction (vph)	0	0	262	0	0	0	0	0	5	0	0	112
Lane Group Flow (vph)	148	149	51	0	22	0	567	726	5	27	609	46
Confl. Peds. (#/hr)									3			1
Heavy Vehicles (%)	4%	4%	4%	14%	14%	14%	4%	4%	4%	7%	7%	7%
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4			7		5	2		1	6	
Permitted Phases			4	7					2			6
Actuated Green, G (s)	12.1	12.1	12.1		1.7		21.1	40.6	40.6	2.0	21.5	21.5
Effective Green, g (s)	12.1	12.1	12.1		1.7		21.1	40.6	40.6	2.0	21.5	21.5
Actuated g/C Ratio	0.16	0.16	0.16		0.02		0.28	0.55	0.55	0.03	0.29	0.29
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	268	269	252		38		492	1894	828	45	975	430
v/s Ratio Prot	0.09	c0.09					c0.33	0.21		0.02	c0.18	
v/s Ratio Perm			0.03		c0.01				0.00			0.03
v/c Ratio	0.55	0.55	0.20		0.58		1.15	0.38	0.01	0.60	0.62	0.11
Uniform Delay, d1	28.7	28.7	27.0		36.0		26.7	9.7	7.7	35.8	22.9	19.4
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	2.5	2.5	0.4		19.6		89.7	0.6	0.0	19.7	3.0	0.5
Delay (s)	31.1	31.1	27.4		55.6		116.4	10.3	7.7	55.5	26.0	19.9
Level of Service	C	C	C		E		F	B	A	E	C	B
Approach Delay (s)		29.2			55.6			56.4			25.8	
Approach LOS		C			E			E			C	

Intersection Summary

HCM 2000 Control Delay	41.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	74.4	Sum of lost time (s)	18.0
Intersection Capacity Utilization	61.0%	ICU Level of Service	B
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)	238	733	230	249	548	322	224	452	256	219	520	210
Future Volume (vph)	238	733	230	249	548	322	224	452	256	219	520	210
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1564	3288	1515	1507	3166	1455	1752	3505	1568	1719	3438	1511
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1564	3288	1515	1507	3166	1455	1752	3505	1568	1719	3438	1511
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	280	862	271	293	645	379	264	532	301	258	612	247
RTOR Reduction (vph)	0	0	154	0	0	277	0	0	227	0	0	189
Lane Group Flow (vph)	252	890	117	264	674	102	264	532	74	258	612	58
Confl. Peds. (#/hr)			2			4						4
Heavy Vehicles (%)	5%	5%	5%	9%	9%	9%	3%	3%	3%	5%	5%	5%
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		7	7		5	2		1	6	
Permitted Phases			4			7			2			6
Actuated Green, G (s)	18.0	18.0	18.0	18.0	18.0	18.0	13.5	21.6	21.6	12.6	20.7	20.7
Effective Green, g (s)	18.0	18.0	18.0	18.0	18.0	18.0	13.5	21.6	21.6	12.6	20.7	20.7
Actuated g/C Ratio	0.20	0.20	0.20	0.20	0.20	0.20	0.15	0.24	0.24	0.14	0.23	0.23
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	319	671	309	307	646	296	268	858	384	245	806	354
v/s Ratio Prot	0.16	c0.27		0.18	c0.21		c0.15	0.15		0.15	c0.18	
v/s Ratio Perm			0.08			0.07			0.05			0.04
v/c Ratio	0.79	1.33	0.38	0.86	1.04	0.34	0.99	0.62	0.19	1.05	0.76	0.16
Uniform Delay, d1	33.3	35.1	30.3	33.9	35.1	30.1	37.2	29.6	26.4	37.8	31.4	26.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	12.2	157.1	0.8	20.6	47.2	0.7	50.4	1.4	0.2	72.1	4.1	0.2
Delay (s)	45.6	192.2	31.0	54.5	82.3	30.8	87.7	31.0	26.6	109.9	35.6	27.1
Level of Service	D	F	C	D	F	C	F	C	C	F	D	C
Approach Delay (s)		135.1			61.9			43.5			50.9	
Approach LOS		F			E			D			D	

Intersection Summary

HCM 2000 Control Delay	76.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	88.2	Sum of lost time (s)	18.0
Intersection Capacity Utilization	77.3%	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)	0	0	0	423	34	446	21	1745	696	327	871	39
Future Volume (vph)	0	0	0	423	34	446	21	1745	696	327	871	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor				0.95	0.95	1.00	1.00	0.95	0.88	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected				0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1681	1697	1552	1770	3539	2725	1770	3513	
Flt Permitted				0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1681	1697	1552	1770	3539	2725	1770	3513	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	436	35	460	22	1799	718	337	898	40
RTOR Reduction (vph)	0	0	0	0	0	212	0	0	0	0	4	0
Lane Group Flow (vph)	0	0	0	235	236	248	22	1799	718	337	934	0
Confl. Peds. (#/hr)						7			4			1
Turn Type				Split	NA	Perm	Prot	NA	Free	Prot	NA	
Protected Phases				8	8		5	2		1	6	
Permitted Phases						8			Free			
Actuated Green, G (s)				13.6	13.6	13.6	0.8	24.4	61.0	11.0	34.6	
Effective Green, g (s)				13.6	13.6	13.6	0.8	24.4	61.0	11.0	34.6	
Actuated g/C Ratio				0.22	0.22	0.22	0.01	0.40	1.00	0.18	0.57	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)				374	378	346	23	1415	2725	319	1992	
v/s Ratio Prot				0.14	0.14		0.01	c0.51		c0.19	0.27	
v/s Ratio Perm						c0.16			0.26			
v/c Ratio				0.63	0.62	0.72	0.96	1.27	0.26	1.06	0.47	
Uniform Delay, d1				21.4	21.4	21.9	30.1	18.3	0.0	25.0	7.8	
Progression Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2				3.3	3.2	6.9	166.5	127.8	0.2	66.0	0.8	
Delay (s)				24.7	24.6	28.8	196.6	146.1	0.2	91.0	8.6	
Level of Service				C	C	C	F	F	A	F	A	
Approach Delay (s)		0.0			26.7			105.3			30.4	
Approach LOS		A			C			F			C	

Intersection Summary

HCM 2000 Control Delay	69.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	61.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	89.1%	ICU Level of Service	E
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 (veh/h)	87	799	137	241	570	194	129	870	82	153	634	308
Future Volume (veh/h)	87	799	137	241	570	194	129	870	82	153	634	308
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1827	1827	1827
Adj Flow Rate, veh/h	94	859	147	259	613	209	139	935	88	165	682	331
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	4	4	4
Cap, veh/h	122	1070	471	146	819	279	170	907	405	203	961	427
Arrive On Green	0.07	0.30	0.30	0.08	0.32	0.32	0.10	0.26	0.26	0.12	0.28	0.28
Sat Flow, veh/h	1774	3539	1558	1774	2593	883	1774	3539	1581	1740	3471	1543
Grp Volume(v), veh/h	94	859	147	259	418	404	139	935	88	165	682	331
Grp Sat Flow(s),veh/h/ln	1774	1770	1558	1774	1770	1707	1774	1770	1581	1740	1736	1543
Q Serve(g_s), s	3.9	16.6	5.4	6.1	15.7	15.7	5.7	19.0	3.3	6.9	13.1	14.6
Cycle Q Clear(g_c), s	3.9	16.6	5.4	6.1	15.7	15.7	5.7	19.0	3.3	6.9	13.1	14.6
Prop In Lane	1.00		1.00	1.00		0.52	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	122	1070	471	146	559	539	170	907	405	203	961	427
V/C Ratio(X)	0.77	0.80	0.31	1.77	0.75	0.75	0.82	1.03	0.22	0.81	0.71	0.77
Avail Cap(c_a), veh/h	347	1260	555	146	559	539	170	907	405	246	1048	466
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	23.8	19.9	34.0	22.7	22.8	32.9	27.6	21.7	32.0	24.1	24.7
Incr Delay (d2), s/veh	9.6	3.3	0.4	375.0	5.5	5.8	25.9	38.2	0.3	15.8	2.0	7.4
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	2.2	8.6	2.4	18.2	8.5	8.3	4.0	14.0	1.5	4.2	6.5	7.1
LnGrp Delay(d),s/veh	43.5	27.1	20.3	409.0	28.3	28.5	58.8	65.7	22.0	47.8	26.2	32.1
LnGrp LOS	D	C	C	F	C	C	E	F	C	D	C	C
Approach Vol, veh/h		1100			1081			1162			1178	
Approach Delay, s/veh		27.6			119.6			61.6			30.9	
Approach LOS		C			F			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.1	23.5	10.6	26.9	11.6	25.0	9.6	27.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	19.0	6.1	26.4	7.1	22.4	14.5	18.0
Max Q Clear Time (g_c+I1), s	8.9	21.0	8.1	18.6	7.7	16.6	5.9	17.7
Green Ext Time (p_c), s	0.1	0.0	0.0	3.8	0.0	2.8	0.1	0.1

Intersection Summary	
HCM 2010 Ctrl Delay	59.2
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	691	60	398	624	135	140	865	686	172	765	15
Future Volume (veh/h)	57	691	60	398	624	135	140	865	686	172	765	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1810	1810	1810
Adj Flow Rate, veh/h	61	743	65	428	671	145	151	930	738	185	823	16
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	5	5	5
Cap, veh/h	78	806	359	365	1126	243	184	1082	483	105	904	403
Arrive On Green	0.04	0.23	0.23	0.21	0.39	0.39	0.10	0.31	0.31	0.06	0.26	0.26
Sat Flow, veh/h	1774	3539	1575	1774	2895	625	1774	3539	1582	1723	3438	1531
Grp Volume(v), veh/h	61	743	65	428	410	406	151	930	738	185	823	16
Grp Sat Flow(s),veh/h/ln	1774	1770	1575	1774	1770	1751	1774	1770	1582	1723	1719	1531
Q Serve(g_s), s	3.1	18.5	3.0	18.5	16.6	16.6	7.5	22.3	27.5	5.5	20.9	0.7
Cycle Q Clear(g_c), s	3.1	18.5	3.0	18.5	16.6	16.6	7.5	22.3	27.5	5.5	20.9	0.7
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	78	806	359	365	688	681	184	1082	483	105	904	403
V/C Ratio(X)	0.78	0.92	0.18	1.17	0.60	0.60	0.82	0.86	1.53	1.76	0.91	0.04
Avail Cap(c_a), veh/h	144	806	359	365	688	681	215	1082	483	105	904	403
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	34.0	28.0	35.7	21.9	21.9	39.5	29.4	31.2	42.2	32.1	24.7
Incr Delay (d2), s/veh	15.1	15.9	0.2	103.3	1.4	1.4	19.3	8.9	247.4	376.2	14.8	0.2
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	1.8	10.8	1.3	19.5	8.4	8.3	4.7	12.2	45.2	13.6	11.7	0.3
LnGrp Delay(d),s/veh	57.7	49.9	28.2	139.0	23.3	23.3	58.8	38.4	278.6	418.5	46.9	24.9
LnGrp LOS	E	D	C	F	C	C	E	D	F	F	D	C
Approach Vol, veh/h		869			1244			1819			1024	
Approach Delay, s/veh		48.8			63.1			137.5			113.7	
Approach LOS		D			E			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	32.0	23.0	25.0	13.8	28.2	8.5	39.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	27.5	18.5	20.5	10.9	22.1	7.3	31.7
Max Q Clear Time (g_c+I1), s	7.5	29.5	20.5	20.5	9.5	22.9	5.1	18.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.1	0.0	0.0	4.4

Intersection Summary	
HCM 2010 Ctrl Delay	98.4
HCM 2010 LOS	F

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1543	2	3	1149	8	2	1	8	5	0	6
Future Vol, veh/h	4	1543	2	3	1149	8	2	1	8	5	0	6
Conflicting Peds, #/hr	5	0	3	3	0	5	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	210	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	36	36	36	9	9	9
Mvmt Flow	4	1624	2	3	1209	8	2	1	8	5	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1222	0	0	1629	0	0	2247	2864	818	2047	2861	614
Stage 1	-	-	-	-	-	-	1636	1636	-	1224	1224	-
Stage 2	-	-	-	-	-	-	611	1228	-	823	1637	-
Critical Hdwy	4.14	-	-	4.14	-	-	8.22	7.22	7.62	7.68	6.68	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	7.22	6.22	-	6.68	5.68	-
Critical Hdwy Stg 2	-	-	-	-	-	-	7.22	6.22	-	6.68	5.68	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.86	4.36	3.66	3.59	4.09	3.39
Pot Cap-1 Maneuver	566	-	-	395	-	-	15	9	256	30	15	418
Stage 1	-	-	-	-	-	-	74	112	-	179	236	-
Stage 2	-	-	-	-	-	-	373	190	-	319	147	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	564	-	-	394	-	-	14	8	255	24	14	416
Mov Cap-2 Maneuver	-	-	-	-	-	-	14	8	-	24	14	-
Stage 1	-	-	-	-	-	-	68	103	-	165	233	-
Stage 2	-	-	-	-	-	-	365	188	-	282	136	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	141.6	99.9
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	37	564	-	-	394	-	-	49
HCM Lane V/C Ratio	0.313	0.007	-	-	0.008	-	-	0.236
HCM Control Delay (s)	141.6	11.4	0.4	-	14.2	-	-	99.9
HCM Lane LOS	F	B	A	-	B	-	-	F
HCM 95th %tile Q(veh)	1	0	-	-	0	-	-	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	302	350	70	281	266	30	340	859	645	40	437	290
Future Volume (veh/h)	302	350	70	281	266	30	340	859	645	40	437	290
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.96	1.00		0.96
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	315	365	73	293	277	31	354	895	672	42	455	302
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	282	547	108	301	695	306	222	1200	513	71	899	386
Arrive On Green	0.16	0.19	0.19	0.17	0.20	0.20	0.13	0.34	0.34	0.04	0.25	0.25
Sat Flow, veh/h	1774	2938	581	1774	3539	1559	1774	3539	1513	1774	3539	1518
Grp Volume(v), veh/h	315	218	220	293	277	31	354	895	672	42	455	302
Grp Sat Flow(s),veh/h/ln	1774	1770	1750	1774	1770	1559	1774	1770	1513	1774	1770	1518
Q Serve(g_s), s	10.8	7.8	7.9	11.2	4.6	1.1	8.5	15.2	23.0	1.6	7.5	12.6
Cycle Q Clear(g_c), s	10.8	7.8	7.9	11.2	4.6	1.1	8.5	15.2	23.0	1.6	7.5	12.6
Prop In Lane	1.00		0.33	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	282	329	326	301	695	306	222	1200	513	71	899	386
V/C Ratio(X)	1.12	0.66	0.67	0.97	0.40	0.10	1.59	0.75	1.31	0.59	0.51	0.78
Avail Cap(c_a), veh/h	282	469	464	301	975	430	222	1200	513	131	991	425
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.5	25.6	25.7	28.0	23.8	22.4	29.7	19.8	22.4	32.0	21.7	23.6
Incr Delay (d2), s/veh	88.4	2.3	2.4	44.9	0.4	0.1	287.3	2.6	153.0	7.5	0.4	8.5
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	12.1	4.0	4.1	9.1	2.3	0.5	21.8	7.8	31.3	0.9	3.7	6.2
LnGrp Delay(d),s/veh	116.9	27.9	28.2	72.9	24.1	22.5	316.9	22.4	175.4	39.5	22.1	32.0
LnGrp LOS	F	C	C	E	C	C	F	C	F	D	C	C
Approach Vol, veh/h		753			601			1921			799	
Approach Delay, s/veh		65.2			47.8			130.2			26.8	
Approach LOS		E			D			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	27.5	16.0	17.1	13.0	21.7	15.3	17.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	22.5	11.5	18.0	8.5	19.0	10.8	18.7
Max Q Clear Time (g_c+I1), s	3.6	25.0	13.2	9.9	10.5	14.6	12.8	6.6
Green Ext Time (p_c), s	0.0	0.0	0.0	1.6	0.0	1.7	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	85.8
HCM 2010 LOS	F

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	39	0	45	0	0	0	60	1652	0	1	1148	54
Future Vol, veh/h	39	0	45	0	0	0	60	1652	0	1	1148	54
Conflicting Peds, #/hr	0	0	1	1	0	0	13	0	2	2	0	13
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	5	5	5
Mvmt Flow	42	0	48	0	0	0	65	1776	0	1	1234	58

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2296	3186	660	2528	3215	890	1305	0	0	1778	0	0
Stage 1	1278	1278	-	1908	1908	-	-	-	-	-	-	-
Stage 2	1018	1908	-	620	1307	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.2	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.25	-	-
Pot Cap-1 Maneuver	~ 21	10	406	14	10	286	526	-	-	333	-	-
Stage 1	176	235	-	71	115	-	-	-	-	-	-	-
Stage 2	254	115	-	442	228	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	0	401	-	0	286	520	-	-	332	-	-
Mov Cap-2 Maneuver	-	0	-	-	0	-	-	-	-	-	-	-
Stage 1	176	230	-	71	0	-	-	-	-	-	-	-
Stage 2	-	0	-	384	223	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s		0	6.2	0.1
HCM LOS	-	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	520	-	-	-	-	332	-	-
HCM Lane V/C Ratio	0.124	-	-	-	-	0.003	-	-
HCM Control Delay (s)	12.9	6	-	-	0	15.9	0.1	-
HCM Lane LOS	B	A	-	-	A	C	A	-
HCM 95th %tile Q(veh)	0.4	-	-	-	-	0	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	13.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	195	1527	60	35	1180
Future Vol, veh/h	10	195	1527	60	35	1180
Conflicting Peds, #/hr	0	0	0	3	3	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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	3	3	4	4
Mvmt Flow	11	207	1624	64	37	1255

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2361	847	0	0	1691	0
Stage 1	1659	-	-	-	-	-
Stage 2	702	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.18	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.24	-
Pot Cap-1 Maneuver	30	305	-	-	365	-
Stage 1	140	-	-	-	-	-
Stage 2	453	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	20	304	-	-	364	-
Mov Cap-2 Maneuver	20	-	-	-	-	-
Stage 1	93	-	-	-	-	-
Stage 2	453	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	187.4	0	2.9
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	180	364	-
HCM Lane V/C Ratio	-	-	1.212	0.102	-
HCM Control Delay (s)	-	-	187.4	16	2.5
HCM Lane LOS	-	-	F	C	A
HCM 95th %tile Q(veh)	-	-	11.7	0.3	-

Intersection						
Int Delay, s/veh	76.6					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	93	15	26	1494	1138	52
Future Vol, veh/h	93	15	26	1494	1138	52
Conflicting Peds, #/hr	4	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	3	3	4	4
Mvmt Flow	100	16	28	1606	1224	56

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2117	642	1282	0	-	0
Stage 1	1254	-	-	-	-	-
Stage 2	863	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.16	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.23	-	-	-
Pot Cap-1 Maneuver	~ 43	417	532	-	-	-
Stage 1	232	-	-	-	-	-
Stage 2	373	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 22	416	531	-	-	-
Mov Cap-2 Maneuver	~ 22	-	-	-	-	-
Stage 1	118	-	-	-	-	-
Stage 2	372	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 1955.9	3.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	531	-	25	-	-
HCM Lane V/C Ratio	0.053	-	4.645	-	-
HCM Control Delay (s)	12.2	2.3	$ 1955.9	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.2	-	14.4	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	1	15	135	48	200	30	1115	120	50	683	140
Future Volume (veh/h)	55	1	15	135	48	200	30	1115	120	50	683	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1792	1792	1827	1827	1900	1845	1845	1900
Adj Flow Rate, veh/h	60	1	16	148	53	220	33	1225	132	55	751	154
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	6	6	6	4	4	4	3	3	3
Cap, veh/h	213	17	28	348	96	324	425	1932	208	284	1770	363
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.61	0.61	0.61	0.61	0.61	0.61
Sat Flow, veh/h	413	80	129	1060	450	1515	601	3161	340	396	2896	594
Grp Volume(v), veh/h	77	0	0	201	0	220	33	671	686	55	454	451
Grp Sat Flow(s),veh/h/ln	622	0	0	1510	0	1515	601	1736	1765	396	1752	1737
Q Serve(g_s), s	2.3	0.0	0.0	0.0	0.0	6.9	1.6	12.6	12.7	5.3	7.0	7.0
Cycle Q Clear(g_c), s	8.4	0.0	0.0	6.1	0.0	6.9	8.6	12.6	12.7	18.0	7.0	7.0
Prop In Lane	0.78		0.21	0.74		1.00	1.00		0.19	1.00		0.34
Lane Grp Cap(c), veh/h	257	0	0	445	0	324	425	1061	1079	284	1071	1062
V/C Ratio(X)	0.30	0.00	0.00	0.45	0.00	0.68	0.08	0.63	0.64	0.19	0.42	0.42
Avail Cap(c_a), veh/h	451	0	0	680	0	573	425	1061	1079	284	1071	1062
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	0.0	0.0	18.3	0.0	18.6	7.5	6.3	6.4	12.1	5.3	5.3
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.7	0.0	2.5	0.4	2.9	2.9	1.5	1.2	1.2
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	1.1	0.0	0.0	2.7	0.0	3.1	0.3	6.8	7.0	0.7	3.6	3.6
LnGrp Delay(d),s/veh	21.0	0.0	0.0	19.0	0.0	21.1	7.9	9.2	9.2	13.6	6.5	6.5
LnGrp LOS	C			B		C	A	A	A	B	A	A
Approach Vol, veh/h		77			421			1390			960	
Approach Delay, s/veh		21.0			20.1			9.2			6.9	
Approach LOS		C			C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		36.0		15.5		36.0		15.5
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		31.5		19.5		31.5		19.5
Max Q Clear Time (g_c+I1), s		14.7		10.4		20.0		8.9
Green Ext Time (p_c), s		9.2		0.2		5.1		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	10.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	556	0	463	40	4	8	262	588	17	15	531	158
Future Volume (vph)	556	0	463	40	4	8	262	588	17	15	531	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00	0.98	1.00	1.00	1.00
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	1.00	0.85		0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.96		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1665	1665	1568		1398		1719	3438	1500	1703	3406	1524
Flt Permitted	0.95	0.95	1.00		0.86		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1665	1665	1568		1252		1719	3438	1500	1703	3406	1524
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)	591	0	493	43	4	9	279	626	18	16	565	168
RTOR Reduction (vph)	0	0	262	0	9	0	0	0	9	0	0	117
Lane Group Flow (vph)	295	296	231	0	47	0	279	626	9	16	565	51
Confl. Peds. (#/hr)									5			
Heavy Vehicles (%)	3%	3%	3%	28%	28%	28%	5%	5%	5%	6%	6%	6%
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4			7		5	2		1	6	
Permitted Phases			4	7					2			6
Actuated Green, G (s)	16.8	16.8	16.8		4.1		15.9	39.1	39.1	0.9	24.1	24.1
Effective Green, g (s)	16.8	16.8	16.8		4.1		15.9	39.1	39.1	0.9	24.1	24.1
Actuated g/C Ratio	0.21	0.21	0.21		0.05		0.20	0.50	0.50	0.01	0.31	0.31
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	354	354	333		65		346	1703	743	19	1040	465
v/s Ratio Prot	0.18	c0.18					c0.16	0.18		0.01	c0.17	
v/s Ratio Perm			0.15		c0.04				0.01			0.03
v/c Ratio	0.83	0.84	0.69		0.73		0.81	0.37	0.01	0.84	0.54	0.11
Uniform Delay, d1	29.7	29.7	28.7		36.9		30.0	12.3	10.1	38.9	22.8	19.7
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	15.4	15.6	6.1		34.1		12.8	0.6	0.0	131.7	2.0	0.5
Delay (s)	45.1	45.3	34.8		70.9		42.9	12.9	10.1	170.7	24.9	20.2
Level of Service	D	D	C		E		D	B	B	F	C	C
Approach Delay (s)		40.5			70.9			21.9			26.9	
Approach LOS		D			E			C			C	

Intersection Summary

HCM 2000 Control Delay	31.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	78.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	58.9%	ICU Level of Service	B
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)	311	479	210	190	245	205	282	710	298	264	603	300
Future Volume (vph)	311	479	210	190	245	205	282	710	298	264	603	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	0.99	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1579	3308	1528	1535	3205	1509	1752	3505	1568	1719	3438	1517
Flt Permitted	0.95	0.99	1.00	0.95	0.99	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1579	3308	1528	1535	3205	1509	1752	3505	1568	1719	3438	1517
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)	349	538	236	213	275	230	317	798	335	297	678	337
RTOR Reduction (vph)	0	0	187	0	0	189	0	0	246	0	0	262
Lane Group Flow (vph)	286	601	49	158	330	41	317	798	89	297	678	75
Confl. Peds. (#/hr)			3									1
Heavy Vehicles (%)	4%	4%	4%	7%	7%	7%	3%	3%	3%	5%	5%	5%
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		7	7		5	2		1	6	
Permitted Phases			4			7			2			6
Actuated Green, G (s)	18.0	18.0	18.0	15.4	15.4	15.4	15.5	22.7	22.7	11.8	19.0	19.0
Effective Green, g (s)	18.0	18.0	18.0	15.4	15.4	15.4	15.5	22.7	22.7	11.8	19.0	19.0
Actuated g/C Ratio	0.21	0.21	0.21	0.18	0.18	0.18	0.18	0.26	0.26	0.14	0.22	0.22
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	330	693	320	275	574	270	316	926	414	236	760	335
v/s Ratio Prot	0.18	c0.18		0.10	c0.10		0.18	c0.23		c0.17	0.20	
v/s Ratio Perm			0.03			0.03			0.06			0.05
v/c Ratio	0.87	0.87	0.15	0.57	0.57	0.15	1.00	0.86	0.21	1.26	0.89	0.22
Uniform Delay, d1	32.8	32.8	27.7	32.3	32.3	29.7	35.2	30.1	24.6	37.1	32.5	27.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	20.5	11.1	0.2	2.9	1.4	0.3	51.4	8.3	0.3	145.9	12.8	0.3
Delay (s)	53.3	43.9	28.0	35.1	33.7	30.0	86.6	38.4	24.9	183.0	45.2	27.7
Level of Service	D	D	C	D	C	C	F	D	C	F	D	C
Approach Delay (s)		42.9			32.8			45.8			71.9	
Approach LOS		D			C			D			E	

Intersection Summary

HCM 2000 Control Delay	50.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	85.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	72.3%	ICU Level of Service	C
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)	0	0	0	574	17	204	18	880	300	211	1377	21
Future Volume (vph)	0	0	0	574	17	204	18	880	300	211	1377	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor				0.95	0.95	1.00	1.00	0.95	0.88	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected				0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1498	1506	1396	1577	3154	2427	1593	3177	
Flt Permitted				0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1498	1506	1396	1577	3154	2427	1593	3177	
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	0	0	0	683	20	243	21	1048	357	251	1639	25
RTOR Reduction (vph)	0	0	0	0	0	17	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	0	348	355	226	21	1048	357	251	1663	0
Confl. Peds. (#/hr)						4			6			2
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	3%	3%	3%	2%	2%	2%
Turn Type				Split	NA	pm+ov	Prot	NA	Free	Prot	NA	
Protected Phases				8	8	1	5	2		1	6	
Permitted Phases						8			Free			
Actuated Green, G (s)				22.8	22.8	39.4	1.6	38.6	90.0	16.6	53.6	
Effective Green, g (s)				22.8	22.8	39.4	1.6	38.6	90.0	16.6	53.6	
Actuated g/C Ratio				0.25	0.25	0.44	0.02	0.43	1.00	0.18	0.60	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)				379	381	673	28	1352	2427	293	1892	
v/s Ratio Prot				0.23	c0.24	0.06	0.01	0.33		c0.16	c0.52	
v/s Ratio Perm						0.10			0.15			
v/c Ratio				0.92	0.93	0.34	0.75	0.78	0.15	0.86	0.88	
Uniform Delay, d1				32.7	32.8	16.7	44.0	22.0	0.0	35.5	15.4	
Progression Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2				26.5	29.3	0.3	71.8	4.4	0.1	21.0	6.2	
Delay (s)				59.2	62.1	17.0	115.8	26.4	0.1	56.6	21.6	
Level of Service				E	E	B	F	C	A	E	C	
Approach Delay (s)		0.0			49.5			21.1			26.2	
Approach LOS		A			D			C			C	

Intersection Summary

HCM 2000 Control Delay	29.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	74.5%	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 (veh/h)	130	416	244	134	563	92	108	577	56	58	838	153
Future Volume (veh/h)	130	416	244	134	563	92	108	577	56	58	838	153
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1845	1845	1900	1776	1776	1776	1863	1863	1863
Adj Flow Rate, veh/h	153	489	287	158	662	108	127	679	66	68	986	180
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	3	3	3	7	7	7	2	2	2
Cap, veh/h	181	850	518	186	738	120	154	1208	539	91	1126	501
Arrive On Green	0.10	0.24	0.24	0.11	0.24	0.24	0.09	0.36	0.36	0.05	0.32	0.32
Sat Flow, veh/h	1774	3539	1558	1757	3018	492	1691	3374	1506	1774	3539	1576
Grp Volume(v), veh/h	153	489	287	158	384	386	127	679	66	68	986	180
Grp Sat Flow(s),veh/h/ln	1774	1770	1558	1757	1752	1758	1691	1687	1506	1774	1770	1576
Q Serve(g_s), s	6.2	9.0	11.1	6.5	15.6	15.6	5.4	11.9	2.2	2.8	19.4	6.5
Cycle Q Clear(g_c), s	6.2	9.0	11.1	6.5	15.6	15.6	5.4	11.9	2.2	2.8	19.4	6.5
Prop In Lane	1.00		1.00	1.00		0.28	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	181	850	518	186	428	430	154	1208	539	91	1126	501
V/C Ratio(X)	0.85	0.58	0.55	0.85	0.90	0.90	0.82	0.56	0.12	0.75	0.88	0.36
Avail Cap(c_a), veh/h	181	866	525	186	436	437	154	1208	539	125	1178	525
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.5	24.6	20.2	32.3	26.9	26.9	32.9	19.0	15.9	34.5	23.7	19.3
Incr Delay (d2), s/veh	29.3	0.9	1.2	29.0	20.6	20.8	29.2	0.6	0.1	15.0	7.4	0.4
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	4.5	4.5	4.9	4.7	10.0	10.1	3.8	5.6	0.9	1.7	10.6	2.9
LnGrp Delay(d),s/veh	61.7	25.6	21.4	61.3	47.5	47.7	62.0	19.6	16.0	49.4	31.1	19.7
LnGrp LOS	E	C	C	E	D	D	E	B	B	D	C	B
Approach Vol, veh/h		929			928			872			1234	
Approach Delay, s/veh		30.2			50.0			25.5			30.5	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	30.9	12.3	22.2	11.2	27.9	12.0	22.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.2	26.0	7.8	18.0	6.7	24.5	7.5	18.3
Max Q Clear Time (g_c+I1), s	4.8	13.9	8.5	13.1	7.4	21.4	8.2	17.6
Green Ext Time (p_c), s	0.0	3.9	0.0	1.9	0.0	2.0	0.0	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	33.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	465	85	656	832	91	50	560	220	154	920	12
Future Volume (veh/h)	49	465	85	656	832	91	50	560	220	154	920	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1810	1810	1810	1845	1845	1845
Adj Flow Rate, veh/h	54	517	94	729	924	101	56	622	244	171	1022	13
Adj No. of Lanes	1	2	1	2	2	0	1	2	1	1	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	5	5	5	3	3	3
Cap, veh/h	75	640	285	802	1196	131	74	888	396	207	1167	521
Arrive On Green	0.04	0.18	0.18	0.23	0.37	0.37	0.04	0.26	0.26	0.12	0.33	0.33
Sat Flow, veh/h	1774	3539	1578	3442	3218	352	1723	3438	1535	1757	3505	1567
Grp Volume(v), veh/h	54	517	94	729	508	517	56	622	244	171	1022	13
Grp Sat Flow(s),veh/h/ln	1774	1770	1578	1721	1770	1800	1723	1719	1535	1757	1752	1567
Q Serve(g_s), s	2.6	12.0	4.4	17.6	21.7	21.7	2.8	14.0	12.0	8.1	23.5	0.5
Cycle Q Clear(g_c), s	2.6	12.0	4.4	17.6	21.7	21.7	2.8	14.0	12.0	8.1	23.5	0.5
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	75	640	285	802	658	669	74	888	396	207	1167	521
V/C Ratio(X)	0.72	0.81	0.33	0.91	0.77	0.77	0.76	0.70	0.62	0.83	0.88	0.02
Avail Cap(c_a), veh/h	106	744	332	824	690	702	101	888	396	252	1167	521
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.5	33.6	30.5	31.9	23.7	23.7	40.5	28.8	28.0	36.9	26.9	19.2
Incr Delay (d2), s/veh	13.1	5.8	0.7	13.7	5.2	5.1	19.5	4.6	7.0	17.0	9.3	0.1
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	1.5	6.4	2.0	9.9	11.5	11.7	1.7	7.2	5.8	4.9	12.9	0.2
LnGrp Delay(d),s/veh	53.6	39.4	31.2	45.7	28.9	28.8	60.0	33.3	35.0	53.9	36.2	19.3
LnGrp LOS	D	D	C	D	C	C	E	C	C	D	D	B
Approach Vol, veh/h		665			1754			922			1206	
Approach Delay, s/veh		39.4			35.8			35.4			38.6	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.6	26.6	24.5	20.0	8.2	33.0	8.1	36.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	12.3	21.2	20.5	18.0	5.0	28.5	5.1	33.4
Max Q Clear Time (g_c+I1), s	10.1	16.0	19.6	14.0	4.8	25.5	4.6	23.7
Green Ext Time (p_c), s	0.1	2.3	0.3	1.4	0.0	1.9	0.0	4.6

Intersection Summary	
HCM 2010 Ctrl Delay	37.0
HCM 2010 LOS	D

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	839	5	0	1570	12	0	0	9	0	0	7
Future Vol, veh/h	0	839	5	0	1570	12	0	0	9	0	0	7
Conflicting Peds, #/hr	2	0	3	3	0	2	1	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	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	2	2	2	44	44	44	2	2	2
Mvmt Flow	0	932	6	0	1744	13	0	0	10	0	0	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	472	-	-	882
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.78	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.74	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	439	0	0	289
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	438	-	-	288
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	13.4	17.8
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	438	-	-	-	-	288
HCM Lane V/C Ratio	0.023	-	-	-	-	0.027
HCM Control Delay (s)	13.4	-	-	-	-	17.8
HCM Lane LOS	B	-	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	167	170	110	425	400	30	110	417	420	70	638	331
Future Volume (veh/h)	167	170	110	425	400	30	110	417	420	70	638	331
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1845	1845	1900	1863	1863	1863	1845	1845	1845	1863	1863	1863
Adj Flow Rate, veh/h	180	183	118	457	430	32	118	448	452	75	686	356
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	2	2	2	3	3	3	2	2	2
Cap, veh/h	225	317	193	500	1084	477	148	1001	879	96	904	401
Arrive On Green	0.13	0.15	0.15	0.28	0.31	0.31	0.08	0.29	0.29	0.05	0.26	0.26
Sat Flow, veh/h	1757	2078	1266	1774	3539	1557	1757	3505	1530	1774	3539	1570
Grp Volume(v), veh/h	180	153	148	457	430	32	118	448	452	75	686	356
Grp Sat Flow(s),veh/h/ln	1757	1752	1591	1774	1770	1557	1757	1752	1530	1774	1770	1570
Q Serve(g_s), s	7.9	6.4	6.9	19.9	7.6	1.2	5.3	8.3	14.5	3.3	14.3	17.4
Cycle Q Clear(g_c), s	7.9	6.4	6.9	19.9	7.6	1.2	5.3	8.3	14.5	3.3	14.3	17.4
Prop In Lane	1.00		0.80	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	225	268	243	500	1084	477	148	1001	879	96	904	401
V/C Ratio(X)	0.80	0.57	0.61	0.91	0.40	0.07	0.80	0.45	0.51	0.78	0.76	0.89
Avail Cap(c_a), veh/h	386	396	359	568	1155	508	165	1001	879	145	933	414
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.7	31.3	31.5	27.7	21.8	19.6	35.8	23.3	10.6	37.2	27.4	28.6
Incr Delay (d2), s/veh	6.4	1.9	2.5	18.2	0.2	0.1	21.2	0.3	0.5	14.1	3.6	19.9
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	4.3	3.2	3.2	12.2	3.7	0.5	3.4	4.1	6.2	2.0	7.4	9.8
LnGrp Delay(d),s/veh	40.2	33.3	34.0	45.9	22.1	19.6	57.0	23.6	11.1	51.3	31.0	48.4
LnGrp LOS	D	C	C	D	C	B	E	C	B	D	C	D
Approach Vol, veh/h		481			919			1018			1117	
Approach Delay, s/veh		36.1			33.8			21.9			37.9	
Approach LOS		D			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	27.3	26.9	16.7	11.2	24.9	14.7	28.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	22.0	25.5	18.0	7.5	21.0	17.5	26.0
Max Q Clear Time (g_c+I1), s	5.3	16.5	21.9	8.9	7.3	19.4	9.9	9.6
Green Ext Time (p_c), s	0.0	2.3	0.6	1.1	0.0	1.0	0.3	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	32.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	0	82	0	0	0	45	785	0	0	1589	52
Future Volume (veh/h)	45	0	82	0	0	0	45	785	0	0	1589	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1810	1810	1900	1863	1863	1900
Adj Flow Rate, veh/h	48	0	87	0	0	0	48	835	0	0	1690	55
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	1	2	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
Percent Heavy Veh, %	2	2	2	2	2	2	5	5	5	2	2	2
Cap, veh/h	277	0	140	0	165	0	68	2551	0	4	2161	70
Arrive On Green	0.09	0.00	0.09	0.00	0.00	0.00	0.04	0.74	0.00	0.00	0.62	0.62
Sat Flow, veh/h	1401	0	1578	0	1863	0	1723	3529	0	1774	3498	113
Grp Volume(v), veh/h	48	0	87	0	0	0	48	835	0	0	852	893
Grp Sat Flow(s),veh/h/ln	1401	0	1578	0	1863	0	1723	1719	0	1774	1770	1842
Q Serve(g_s), s	1.5	0.0	2.5	0.0	0.0	0.0	1.3	3.9	0.0	0.0	16.8	17.0
Cycle Q Clear(g_c), s	1.5	0.0	2.5	0.0	0.0	0.0	1.3	3.9	0.0	0.0	16.8	17.0
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	1.00		0.06
Lane Grp Cap(c), veh/h	277	0	140	0	165	0	68	2551	0	4	1093	1138
V/C Ratio(X)	0.17	0.00	0.62	0.00	0.00	0.00	0.70	0.33	0.00	0.00	0.78	0.78
Avail Cap(c_a), veh/h	627	0	535	0	631	0	146	2551	0	150	1237	1288
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	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	0.0	20.8	0.0	0.0	0.0	22.4	2.1	0.0	0.0	6.7	6.7
Incr Delay (d2), s/veh	0.3	0.0	4.5	0.0	0.0	0.0	12.4	0.1	0.0	0.0	2.9	2.9
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	0.6	0.0	1.3	0.0	0.0	0.0	0.8	1.8	0.0	0.0	8.7	9.4
LnGrp Delay(d),s/veh	20.6	0.0	25.2	0.0	0.0	0.0	34.8	2.1	0.0	0.0	9.5	9.6
LnGrp LOS	C		C				C	A			A	A
Approach Vol, veh/h		135			0			883			1745	
Approach Delay, s/veh		23.6			0.0			3.9			9.6	
Approach LOS		C						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	39.0		8.2	5.9	33.2		8.2
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	33.0		16.0	4.0	33.0		16.0
Max Q Clear Time (g_c+I1), s	0.0	5.9		4.5	3.3	19.0		0.0
Green Ext Time (p_c), s	0.0	6.6		0.3	0.0	10.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	8.5
HCM 2010 LOS	A

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	45	44	15	800	1485	85
Future Vol, veh/h	45	44	15	800	1485	85
Conflicting Peds, #/hr	2	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	7	7	2	2
Mvmt Flow	47	46	16	842	1563	89

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2065	828	1654	0	-	0
Stage 1	1610	-	-	-	-	-
Stage 2	455	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.24	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.27	-	-	-
Pot Cap-1 Maneuver	~ 47	314	364	-	-	-
Stage 1	149	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 45	313	363	-	-	-
Mov Cap-2 Maneuver	117	-	-	-	-	-
Stage 1	142	-	-	-	-	-
Stage 2	605	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	37.1	0.3	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	363	-	117	313	-	-
HCM Lane V/C Ratio	0.043	-	0.405	0.148	-	-
HCM Control Delay (s)	15.4	-	55.3	18.5	-	-
HCM Lane LOS	C	-	F	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1.7	0.5	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	238	733	230	249	548	322	224	452	256	219	520	210
Future Volume (veh/h)	238	733	230	249	548	322	224	452	256	219	520	210
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1810	1810	1810	1743	1743	1743	1845	1845	1845	1810	1810	1810
Adj Flow Rate, veh/h	280	862	271	293	645	379	264	532	301	258	612	247
Adj No. of Lanes	2	2	1	2	2	1	1	2	1	1	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	5	5	5	9	9	9	3	3	3	5	5	5
Cap, veh/h	381	916	409	390	906	404	294	778	348	288	763	340
Arrive On Green	0.11	0.27	0.27	0.12	0.27	0.27	0.17	0.22	0.22	0.17	0.22	0.22
Sat Flow, veh/h	3343	3438	1535	3221	3312	1475	1757	3505	1568	1723	3438	1530
Grp Volume(v), veh/h	280	862	271	293	645	379	264	532	301	258	612	247
Grp Sat Flow(s),veh/h/ln	1672	1719	1535	1610	1656	1475	1757	1752	1568	1723	1719	1530
Q Serve(g_s), s	6.5	19.8	12.7	7.1	14.2	20.3	11.9	11.2	14.9	11.8	13.6	12.1
Cycle Q Clear(g_c), s	6.5	19.8	12.7	7.1	14.2	20.3	11.9	11.2	14.9	11.8	13.6	12.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	381	916	409	390	906	404	294	778	348	288	763	340
V/C Ratio(X)	0.73	0.94	0.66	0.75	0.71	0.94	0.90	0.68	0.86	0.89	0.80	0.73
Avail Cap(c_a), veh/h	746	916	409	718	906	404	294	825	369	288	809	360
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.6	29.0	26.4	34.3	26.4	28.6	32.9	28.8	30.2	32.9	29.7	29.1
Incr Delay (d2), s/veh	2.8	17.3	4.0	2.9	2.6	29.8	28.1	2.2	18.1	27.9	5.5	6.8
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	3.1	11.5	5.8	3.3	6.8	11.5	8.0	5.6	8.2	7.8	7.0	5.7
LnGrp Delay(d),s/veh	37.3	46.2	30.3	37.2	29.1	58.4	61.1	31.0	48.3	60.8	35.3	35.9
LnGrp LOS	D	D	C	D	C	E	E	C	D	E	D	D
Approach Vol, veh/h		1413			1317			1097			1117	
Approach Delay, s/veh		41.4			39.3			43.0			41.3	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	22.4	14.3	26.0	18.0	22.4	13.7	26.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	19.0	18.0	21.5	13.5	19.0	18.0	21.5
Max Q Clear Time (g_c+I1), s	13.8	16.9	9.1	21.8	13.9	15.6	8.5	22.3
Green Ext Time (p_c), s	0.0	1.0	0.7	0.0	0.0	1.6	0.7	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	41.2
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	423	34	446	21	1745	696	327	871	39
Future Volume (vph)	0	0	0	423	34	446	21	1745	696	327	871	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor				0.95	0.95	1.00	1.00	0.95	0.88	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected				0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1681	1697	1566	1770	3539	2725	1770	3513	
Flt Permitted				0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1681	1697	1566	1770	3539	2725	1770	3513	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	436	35	460	22	1799	718	337	898	40
RTOR Reduction (vph)	0	0	0	0	0	8	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	235	236	452	22	1799	718	337	935	0
Confl. Peds. (#/hr)						7			4			1
Turn Type				Split	NA	pm+ov	Prot	NA	Free	Prot	NA	
Protected Phases				8	8	1	5	2		1	6	
Permitted Phases						8			Free			
Actuated Green, G (s)				15.1	15.1	32.1	2.0	47.5	91.6	17.0	62.5	
Effective Green, g (s)				15.1	15.1	32.1	2.0	47.5	91.6	17.0	62.5	
Actuated g/C Ratio				0.16	0.16	0.35	0.02	0.52	1.00	0.19	0.68	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)				277	279	617	38	1835	2725	328	2396	
v/s Ratio Prot				c0.14	0.14	c0.14	0.01	c0.51		c0.19	0.27	
v/s Ratio Perm						0.15			0.26			
v/c Ratio				0.85	0.85	0.73	0.58	0.98	0.26	1.03	0.39	
Uniform Delay, d1				37.1	37.1	26.0	44.4	21.6	0.0	37.3	6.3	
Progression Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2				20.7	20.4	4.5	19.6	16.9	0.2	56.9	0.5	
Delay (s)				57.9	57.5	30.5	64.0	38.4	0.2	94.2	6.8	
Level of Service				E	E	C	E	D	A	F	A	
Approach Delay (s)		0.0			44.2			27.9			29.9	
Approach LOS		A			D			C			C	

Intersection Summary

HCM 2000 Control Delay	31.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	91.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	89.1%	ICU Level of Service	E
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 (veh/h)	87	799	137	241	570	194	129	870	82	153	634	308
Future Volume (veh/h)	87	799	137	241	570	194	129	870	82	153	634	308
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1827	1827	1827
Adj Flow Rate, veh/h	94	859	147	259	613	209	139	935	88	165	682	331
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	4	4	4
Cap, veh/h	120	897	546	280	892	304	171	997	446	186	1014	451
Arrive On Green	0.07	0.25	0.25	0.16	0.34	0.34	0.10	0.28	0.28	0.11	0.29	0.29
Sat Flow, veh/h	1774	3539	1553	1774	2593	883	1774	3539	1582	1740	3471	1543
Grp Volume(v), veh/h	94	859	147	259	418	404	139	935	88	165	682	331
Grp Sat Flow(s),veh/h/ln	1774	1770	1553	1774	1770	1707	1774	1770	1582	1740	1736	1543
Q Serve(g_s), s	4.7	21.5	6.1	12.9	18.2	18.3	6.9	23.2	3.8	8.4	15.6	17.4
Cycle Q Clear(g_c), s	4.7	21.5	6.1	12.9	18.2	18.3	6.9	23.2	3.8	8.4	15.6	17.4
Prop In Lane	1.00		1.00	1.00		0.52	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	120	897	546	280	609	587	171	997	446	186	1014	451
V/C Ratio(X)	0.79	0.96	0.27	0.92	0.69	0.69	0.81	0.94	0.20	0.89	0.67	0.73
Avail Cap(c_a), veh/h	152	897	546	280	609	587	201	1000	447	186	1014	451
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.3	33.1	21.0	37.3	25.3	25.4	39.8	31.5	24.6	39.6	28.1	28.7
Incr Delay (d2), s/veh	18.6	20.4	0.3	34.5	3.2	3.4	19.2	15.7	0.2	36.7	1.8	6.1
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	2.9	13.0	2.7	9.0	9.5	9.2	4.3	13.5	1.7	5.9	7.7	8.2
LnGrp Delay(d),s/veh	59.8	53.5	21.2	71.8	28.6	28.7	59.0	47.2	24.8	76.4	29.8	34.8
LnGrp LOS	E	D	C	E	C	C	E	D	C	E	C	C
Approach Vol, veh/h		1100			1081			1162			1178	
Approach Delay, s/veh		49.7			39.0			46.9			37.7	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	29.8	18.7	27.3	13.2	30.8	10.6	35.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.6	25.4	14.2	22.8	10.2	24.8	7.7	29.3
Max Q Clear Time (g_c+I1), s	10.4	25.2	14.9	23.5	8.9	19.4	6.7	20.3
Green Ext Time (p_c), s	0.0	0.1	0.0	0.0	0.0	2.7	0.0	3.5

Intersection Summary	
HCM 2010 Ctrl Delay	43.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	687	60	398	624	135	140	865	686	154	920	15
Future Volume (veh/h)	61	687	60	398	624	135	140	865	686	154	920	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1810	1810	1810
Adj Flow Rate, veh/h	66	739	65	428	671	145	151	930	738	166	989	16
Adj No. of Lanes	1	2	1	2	2	0	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	5	5	5
Cap, veh/h	85	776	345	522	936	202	171	1097	730	190	1113	496
Arrive On Green	0.05	0.22	0.22	0.15	0.32	0.32	0.10	0.31	0.31	0.11	0.32	0.32
Sat Flow, veh/h	1774	3539	1575	3442	2895	625	1774	3539	1582	1723	3438	1532
Grp Volume(v), veh/h	66	739	65	428	410	406	151	930	738	166	989	16
Grp Sat Flow(s),veh/h/ln	1774	1770	1575	1721	1770	1750	1774	1770	1582	1723	1719	1532
Q Serve(g_s), s	3.2	17.8	2.9	10.4	17.6	17.6	7.2	21.2	26.7	8.2	23.5	0.6
Cycle Q Clear(g_c), s	3.2	17.8	2.9	10.4	17.6	17.6	7.2	21.2	26.7	8.2	23.5	0.6
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	85	776	345	522	572	566	171	1097	730	190	1113	496
V/C Ratio(X)	0.78	0.95	0.19	0.82	0.72	0.72	0.88	0.85	1.01	0.87	0.89	0.03
Avail Cap(c_a), veh/h	130	776	345	675	606	599	171	1097	730	190	1113	496
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.6	33.2	27.4	35.4	25.7	25.7	38.5	27.8	23.2	37.7	27.7	19.9
Incr Delay (d2), s/veh	15.0	21.4	0.3	6.2	3.8	3.9	37.9	8.2	35.9	33.2	10.6	0.1
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	1.9	10.9	1.3	5.4	9.1	9.1	5.4	11.6	24.4	5.6	12.8	0.3
LnGrp Delay(d),s/veh	55.6	54.6	27.7	41.6	29.5	29.6	76.4	36.0	59.1	70.9	38.3	20.0
LnGrp LOS	E	D	C	D	C	C	E	D	F	E	D	C
Approach Vol, veh/h		870			1244			1819			1171	
Approach Delay, s/veh		52.6			33.7			48.8			42.7	
Approach LOS		D			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	31.2	17.6	23.4	12.8	32.4	8.6	32.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	9.5	26.7	16.9	18.9	8.3	27.9	6.3	29.5
Max Q Clear Time (g_c+I1), s	10.2	28.7	12.4	19.8	9.2	25.5	5.2	19.6
Green Ext Time (p_c), s	0.0	0.0	0.7	0.0	0.0	1.5	0.0	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	44.3
HCM 2010 LOS	D

Intersection												
Int Delay, s/veh	0.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱			↑↑↱				↱			↱
Traffic Vol, veh/h	0	1548	2	0	1149	8	0	0	11	0	0	6
Future Vol, veh/h	0	1548	2	0	1149	8	0	0	11	0	0	6
Conflicting Peds, #/hr	5	0	3	3	0	5	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	36	36	36	9	9	9
Mvmt Flow	0	1629	2	0	1209	8	0	0	12	0	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	821	-	-	614
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.62	-	-	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.66	-	-	3.39
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	255	0	0	418
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	254	-	-	416
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	19.8	13.8
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	254	-	-	-	-	416
HCM Lane V/C Ratio	0.046	-	-	-	-	0.015
HCM Control Delay (s)	19.8	-	-	-	-	13.8
HCM Lane LOS	C	-	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	-	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	302	350	70	281	266	30	340	859	645	40	437	290
Future Volume (vph)	302	350	70	281	266	30	340	859	645	40	437	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.97	1.00	1.00	0.94	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	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3437		1770	3539	1542	1770	3539	1495	1770	3539	1487
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3437		1770	3539	1542	1770	3539	1495	1770	3539	1487
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)	315	365	73	293	277	31	354	895	672	42	455	302
RTOR Reduction (vph)	0	19	0	0	0	26	0	0	70	0	0	239
Lane Group Flow (vph)	315	419	0	293	277	5	354	895	602	42	455	63
Confl. Peds. (#/hr)			9			10			50			35
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	3	1	6	
Permitted Phases						8			2			6
Actuated Green, G (s)	16.9	15.4		15.9	14.4	14.4	18.8	33.8	49.7	2.8	17.8	17.8
Effective Green, g (s)	16.9	15.4		15.9	14.4	14.4	18.8	33.8	49.7	2.8	17.8	17.8
Actuated g/C Ratio	0.20	0.18		0.19	0.17	0.17	0.22	0.39	0.58	0.03	0.21	0.21
Clearance Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	348	616		327	593	258	387	1392	943	57	733	308
v/s Ratio Prot	c0.18	c0.12		0.17	0.08		c0.20	0.25	c0.12	0.02	0.13	
v/s Ratio Perm						0.00			0.28			0.04
v/c Ratio	0.91	0.68		0.90	0.47	0.02	0.91	0.64	0.64	0.74	0.62	0.20
Uniform Delay, d1	33.7	32.9		34.2	32.3	29.9	32.8	21.2	12.1	41.2	31.0	28.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	25.8	3.1		25.4	0.6	0.0	25.6	1.0	1.4	38.8	1.6	0.3
Delay (s)	59.6	36.0		59.5	32.9	29.9	58.4	22.2	13.5	80.0	32.6	28.5
Level of Service	E	D		E	C	C	E	C	B	E	C	C
Approach Delay (s)		45.9			45.7			25.8			33.6	
Approach LOS		D			D			C			C	

Intersection Summary

HCM 2000 Control Delay	34.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	85.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	76.3%	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 (veh/h)	39	0	45	0	0	0	60	1652	0	1	1148	54
Future Volume (veh/h)	39	0	45	0	0	0	60	1652	0	1	1148	54
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1810	1810	1900
Adj Flow Rate, veh/h	42	0	48	0	0	0	65	1776	0	1	1234	58
Adj No. of Lanes	0	1	1	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	5	5	5
Cap, veh/h	256	0	102	0	120	0	89	2332	0	4	2039	96
Arrive On Green	0.06	0.00	0.06	0.00	0.00	0.00	0.05	0.66	0.00	0.00	0.61	0.61
Sat Flow, veh/h	1399	0	1578	0	1863	0	1774	3632	0	1723	3342	157
Grp Volume(v), veh/h	42	0	48	0	0	0	65	1776	0	1	634	658
Grp Sat Flow(s),veh/h/ln	1399	0	1578	0	1863	0	1774	1770	0	1723	1719	1780
Q Serve(g_s), s	1.3	0.0	1.3	0.0	0.0	0.0	1.6	15.0	0.0	0.0	9.9	10.0
Cycle Q Clear(g_c), s	1.3	0.0	1.3	0.0	0.0	0.0	1.6	15.0	0.0	0.0	9.9	10.0
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	1.00		0.09
Lane Grp Cap(c), veh/h	256	0	102	0	120	0	89	2332	0	4	1049	1086
V/C Ratio(X)	0.16	0.00	0.47	0.00	0.00	0.00	0.73	0.76	0.00	0.25	0.60	0.61
Avail Cap(c_a), veh/h	679	0	579	0	684	0	203	2679	0	158	1262	1307
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	0.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.7	0.0	19.7	0.0	0.0	0.0	20.4	5.1	0.0	21.7	5.3	5.3
Incr Delay (d2), s/veh	0.3	0.0	3.3	0.0	0.0	0.0	11.0	1.1	0.0	30.5	0.6	0.6
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	0.5	0.0	0.7	0.0	0.0	0.0	1.0	7.3	0.0	0.0	4.7	4.9
LnGrp Delay(d),s/veh	20.0	0.0	23.0	0.0	0.0	0.0	31.4	6.2	0.0	52.3	5.8	5.8
LnGrp LOS	B		C				C	A		D	A	A
Approach Vol, veh/h		90			0			1841			1293	
Approach Delay, s/veh		21.6			0.0			7.1			5.9	
Approach LOS		C						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.0	32.7		6.8	6.2	30.6		6.8
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	33.0		16.0	5.0	32.0		16.0
Max Q Clear Time (g_c+I1), s	2.0	17.0		3.3	3.6	12.0		0.0
Green Ext Time (p_c), s	0.0	11.7		0.2	0.0	9.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	7.0
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	311	479	210	190	245	205	282	710	298	264	603	300
Future Volume (veh/h)	311	479	210	190	245	205	282	710	298	264	603	300
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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
Adj Sat Flow, veh/h/ln	1827	1827	1827	1776	1776	1776	1845	1845	1845	1810	1810	1810
Adj Flow Rate, veh/h	349	538	236	213	275	230	317	798	335	297	678	337
Adj No. of Lanes	2	2	1	2	2	1	1	2	1	1	2	1
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
Percent Heavy Veh, %	4	4	4	7	7	7	3	3	3	5	5	5
Cap, veh/h	457	789	352	311	631	282	355	895	400	333	849	379
Arrive On Green	0.14	0.23	0.23	0.09	0.19	0.19	0.20	0.26	0.26	0.19	0.25	0.25
Sat Flow, veh/h	3375	3471	1547	3281	3374	1509	1757	3505	1568	1723	3438	1536
Grp Volume(v), veh/h	349	538	236	213	275	230	317	798	335	297	678	337
Grp Sat Flow(s),veh/h/ln	1688	1736	1547	1640	1687	1509	1757	1752	1568	1723	1719	1536
Q Serve(g_s), s	7.8	11.1	10.9	4.9	5.7	11.5	13.8	17.3	15.9	13.2	14.5	16.6
Cycle Q Clear(g_c), s	7.8	11.1	10.9	4.9	5.7	11.5	13.8	17.3	15.9	13.2	14.5	16.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	457	789	352	311	631	282	355	895	400	333	849	379
V/C Ratio(X)	0.76	0.68	0.67	0.68	0.44	0.82	0.89	0.89	0.84	0.89	0.80	0.89
Avail Cap(c_a), veh/h	773	795	354	751	772	346	369	914	409	340	853	381
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.8	27.8	27.7	34.4	28.3	30.7	30.5	28.2	27.7	30.9	27.8	28.6
Incr Delay (d2), s/veh	2.7	2.4	4.8	2.7	0.5	11.7	22.6	10.9	13.9	23.8	5.4	21.7
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	3.8	5.6	5.1	2.4	2.7	5.7	8.9	9.7	8.4	8.5	7.5	9.3
LnGrp Delay(d),s/veh	35.5	30.1	32.5	37.1	28.8	42.4	53.1	39.1	41.6	54.7	33.2	50.2
LnGrp LOS	D	C	C	D	C	D	D	D	D	D	C	D
Approach Vol, veh/h		1123			718			1450			1312	
Approach Delay, s/veh		32.3			35.6			42.7			42.4	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.7	24.6	12.0	22.4	20.4	23.9	15.1	19.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	15.5	20.5	18.0	18.0	16.5	19.5	18.0	18.0
Max Q Clear Time (g_c+I1), s	15.2	19.3	6.9	13.1	15.8	18.6	9.8	13.5
Green Ext Time (p_c), s	0.0	0.8	0.5	1.9	0.1	0.5	0.8	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	39.0
HCM 2010 LOS	D

Intersection						
Int Delay, s/veh	2.6					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	93	15	26	1494	1138	52
Future Vol, veh/h	93	15	26	1494	1138	52
Conflicting Peds, #/hr	4	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	3	3	4	4
Mvmt Flow	100	16	28	1606	1224	56

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2117	642	1282	0	-	0
Stage 1	1254	-	-	-	-	-
Stage 2	863	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.16	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.23	-	-	-
Pot Cap-1 Maneuver	~ 43	417	532	-	-	-
Stage 1	232	-	-	-	-	-
Stage 2	373	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 41	416	531	-	-	-
Mov Cap-2 Maneuver	143	-	-	-	-	-
Stage 1	219	-	-	-	-	-
Stage 2	372	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	65.9	0.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	531	-	143	416	-	-
HCM Lane V/C Ratio	0.053	-	0.699	0.039	-	-
HCM Control Delay (s)	12.2	-	74.3	14	-	-
HCM Lane LOS	B	-	F	B	-	-
HCM 95th %tile Q(veh)	0.2	-	4	0.1	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Appendix H

Level of Service

Calculations

Cumulative Plus Project

Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	578	17	204	18	918	304	211	1424	21
Future Volume (vph)	0	0	0	578	17	204	18	918	304	211	1424	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor				0.95	0.95	1.00	1.00	0.95	0.88	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected				0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1498	1506	1388	1577	3154	2427	1593	3177	
Flt Permitted				0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1498	1506	1388	1577	3154	2427	1593	3177	
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	0	0	0	688	20	243	21	1093	362	251	1695	25
RTOR Reduction (vph)	0	0	0	0	0	177	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	0	351	357	66	21	1093	362	251	1719	0
Confl. Peds. (#/hr)						4			6			2
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	3%	3%	3%	2%	2%	2%
Turn Type				Split	NA	Perm	Prot	NA	Free	Prot	NA	
Protected Phases				8	8		5	2		1	6	
Permitted Phases						8			Free			
Actuated Green, G (s)				16.7	16.7	16.7	0.8	21.3	61.5	11.5	32.0	
Effective Green, g (s)				16.7	16.7	16.7	0.8	21.3	61.5	11.5	32.0	
Actuated g/C Ratio				0.27	0.27	0.27	0.01	0.35	1.00	0.19	0.52	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)				406	408	376	20	1092	2427	297	1653	
v/s Ratio Prot				0.23	c0.24		0.01	0.35		c0.16	c0.54	
v/s Ratio Perm						0.05			0.15			
v/c Ratio				0.86	0.88	0.18	1.05	1.00	0.15	0.85	1.04	
Uniform Delay, d1				21.3	21.4	17.1	30.4	20.1	0.0	24.1	14.8	
Progression Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2				17.1	18.4	0.2	217.8	27.5	0.1	19.3	33.2	
Delay (s)				38.5	39.8	17.4	248.1	47.6	0.1	43.4	47.9	
Level of Service				D	D	B	F	D	A	D	D	
Approach Delay (s)		0.0			33.6			38.8			47.4	
Approach LOS		A			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	41.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	61.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.1%	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 (veh/h)	130	416	253	138	563	92	115	660	60	58	940	153
Future Volume (veh/h)	130	416	253	138	563	92	115	660	60	58	940	153
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1845	1845	1900	1776	1776	1776	1863	1863	1863
Adj Flow Rate, veh/h	153	489	298	162	662	108	135	776	71	68	1106	180
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	3	3	3	7	7	7	2	2	2
Cap, veh/h	164	977	431	138	791	129	133	1038	463	97	1006	448
Arrive On Green	0.09	0.28	0.28	0.08	0.26	0.26	0.08	0.31	0.31	0.05	0.28	0.28
Sat Flow, veh/h	1774	3539	1561	1757	3018	492	1691	3374	1505	1774	3539	1575
Grp Volume(v), veh/h	153	489	298	162	384	386	135	776	71	68	1106	180
Grp Sat Flow(s),veh/h/ln	1774	1770	1561	1757	1752	1758	1691	1687	1505	1774	1770	1575
Q Serve(g_s), s	5.5	7.4	10.9	5.0	13.2	13.2	5.0	13.2	2.2	2.4	18.1	5.9
Cycle Q Clear(g_c), s	5.5	7.4	10.9	5.0	13.2	13.2	5.0	13.2	2.2	2.4	18.1	5.9
Prop In Lane	1.00		1.00	1.00		0.28	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	977	431	138	459	461	133	1038	463	97	1006	448
V/C Ratio(X)	0.93	0.50	0.69	1.17	0.84	0.84	1.02	0.75	0.15	0.70	1.10	0.40
Avail Cap(c_a), veh/h	164	1050	463	138	495	497	133	1038	463	139	1006	448
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	19.4	20.6	29.3	22.2	22.2	29.3	19.8	16.0	29.6	22.8	18.4
Incr Delay (d2), s/veh	50.3	0.4	4.0	131.1	11.3	11.4	82.6	3.0	0.2	8.7	59.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	3.7	5.1	7.4	7.7	7.8	5.3	6.5	0.9	1.4	17.0	2.6
LnGrp Delay(d),s/veh	79.0	19.8	24.6	160.5	33.5	33.6	112.1	22.8	16.2	38.2	82.4	19.0
LnGrp LOS	E	B	C	F	C	C	F	C	B	D	F	B
Approach Vol, veh/h		940			932			982			1354	
Approach Delay, s/veh		30.9			55.6			34.6			71.8	
Approach LOS		C			E			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	24.1	9.5	22.1	9.5	22.6	10.4	21.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.1	5.0	18.9	5.0	18.1	5.9	18.0
Max Q Clear Time (g_c+I1), s	4.4	15.2	7.0	12.9	7.0	20.1	7.5	15.2
Green Ext Time (p_c), s	0.0	1.5	0.0	2.3	0.0	0.0	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	50.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	45	499	110	81	738	832	102	85	654	220	209	980
Future Volume (vph)	45	499	110	81	738	832	102	85	654	220	209	980
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00		1.00	0.95		1.00	0.95	1.00	1.00	0.95
Frpb, ped/bikes	1.00	1.00	0.98		1.00	1.00		1.00	1.00	0.98	1.00	1.00
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	1.00	0.85		1.00	0.98		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	1557		1770	3476		1719	3438	1513	1752	3505
Flt Permitted	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	1557		1770	3476		1719	3438	1513	1752	3505
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	50	554	122	90	820	924	113	94	727	244	232	1089
RTOR Reduction (vph)	0	0	105	0	0	6	0	0	0	144	0	0
Lane Group Flow (vph)	50	554	17	0	910	1031	0	94	727	100	232	1089
Confl. Peds. (#/hr)			2				1			2		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	5%	5%	5%	3%	3%
Turn Type	Prot	NA	Perm	Prot	Prot	NA		Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	3	8		5	2		1	6
Permitted Phases			4							2		
Actuated Green, G (s)	7.2	19.4	19.4		55.5	67.7		7.5	34.0	34.0	14.0	40.5
Effective Green, g (s)	7.2	19.4	19.4		55.5	67.7		7.5	34.0	34.0	14.0	40.5
Actuated g/C Ratio	0.05	0.14	0.14		0.39	0.48		0.05	0.24	0.24	0.10	0.29
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	90	487	214		697	1670		91	829	365	174	1007
v/s Ratio Prot	0.03	c0.16			c0.51	0.30		0.05	0.21		c0.13	c0.31
v/s Ratio Perm			0.01							0.07		
v/c Ratio	0.56	1.14	0.08		1.31	0.62		1.03	0.88	0.27	1.33	1.08
Uniform Delay, d1	65.3	60.8	53.0		42.7	27.0		66.7	51.4	43.4	63.5	50.2
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	7.2	84.3	0.2		147.8	0.7		103.6	12.6	1.8	183.8	53.0
Delay (s)	72.5	145.1	53.1		190.5	27.7		170.3	64.0	45.3	247.2	103.2
Level of Service	E	F	D		F	C		F	E	D	F	F
Approach Delay (s)		124.6				103.8			69.1			127.6
Approach LOS		F				F			E			F

Intersection Summary			
HCM 2000 Control Delay	105.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	140.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	106.0%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	12
Future Volume (vph)	12
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frpb, ped/bikes	0.99
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1546
Flt Permitted	1.00
Satd. Flow (perm)	1546
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	13
RTOR Reduction (vph)	9
Lane Group Flow (vph)	4
Confl. Peds. (#/hr)	1
Heavy Vehicles (%)	3%
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	40.5
Effective Green, g (s)	40.5
Actuated g/C Ratio	0.29
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	444
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.01
Uniform Delay, d1	35.9
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	35.9
Level of Service	D
Approach Delay (s)	
Approach LOS	

Intersection Summary

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	834	171	0	1735	12	0	0	133	0	0	7
Future Vol, veh/h	4	834	171	0	1735	12	0	0	133	0	0	7
Conflicting Peds, #/hr	2	0	0	0	0	2	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	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	3	3	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	927	190	0	1928	13	0	0	148	0	0	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1943	0	0	-	-	0	-	-	559	2409	3062	974
Stage 1	-	-	-	-	-	-	-	-	-	1937	1937	-
Stage 2	-	-	-	-	-	-	-	-	-	472	1125	-
Critical Hdwy	4.16	-	-	-	-	-	-	-	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	2.23	-	-	-	-	-	-	-	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	294	-	-	0	-	-	0	0	472	17	12	251
Stage 1	-	-	-	0	-	-	0	0	-	68	111	-
Stage 2	-	-	-	0	-	-	0	0	-	542	278	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	294	-	-	-	-	-	-	-	472	11	12	250
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	11	12	-
Stage 1	-	-	-	-	-	-	-	-	-	65	111	-
Stage 2	-	-	-	-	-	-	-	-	-	358	267	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	16.1	19.9
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	472	294	-	-	-	-	250
HCM Lane V/C Ratio	0.313	0.015	-	-	-	-	0.031
HCM Control Delay (s)	16.1	17.4	0.3	-	-	-	19.9
HCM Lane LOS	C	C	A	-	-	-	C
HCM 95th %tile Q(veh)	1.3	0	-	-	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	181	184	110	425	417	30	110	417	420	70	638	348
Future Volume (veh/h)	181	184	110	425	417	30	110	417	420	70	638	348
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1845	1845	1900	1863	1863	1863	1845	1845	1845	1863	1863	1863
Adj Flow Rate, veh/h	195	198	118	457	448	32	118	448	452	75	686	374
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	2	2	2	3	3	3	2	2	2
Cap, veh/h	225	358	203	404	945	415	129	998	436	99	945	419
Arrive On Green	0.13	0.17	0.17	0.23	0.27	0.27	0.07	0.28	0.28	0.06	0.27	0.27
Sat Flow, veh/h	1757	2142	1215	1774	3539	1553	1757	3505	1530	1774	3539	1571
Grp Volume(v), veh/h	195	160	156	457	448	32	118	448	452	75	686	374
Grp Sat Flow(s),veh/h/ln	1757	1752	1604	1774	1770	1553	1757	1752	1530	1774	1770	1571
Q Serve(g_s), s	7.4	5.7	6.1	15.5	7.2	1.0	4.5	7.1	19.4	2.8	12.0	15.6
Cycle Q Clear(g_c), s	7.4	5.7	6.1	15.5	7.2	1.0	4.5	7.1	19.4	2.8	12.0	15.6
Prop In Lane	1.00		0.76	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	225	293	268	404	945	415	129	998	436	99	945	419
V/C Ratio(X)	0.87	0.55	0.58	1.13	0.47	0.08	0.91	0.45	1.04	0.76	0.73	0.89
Avail Cap(c_a), veh/h	225	464	425	404	1291	566	129	998	436	130	963	427
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.1	26.0	26.1	26.3	20.9	18.7	31.3	19.9	24.3	31.7	22.7	24.0
Incr Delay (d2), s/veh	28.2	1.6	2.0	85.2	0.4	0.1	53.5	0.3	53.2	16.6	2.7	20.2
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	5.3	2.9	2.8	17.1	3.5	0.5	4.1	3.5	14.5	1.9	6.2	9.1
LnGrp Delay(d),s/veh	57.3	27.6	28.1	111.4	21.3	18.7	84.8	20.3	77.5	48.3	25.4	44.1
LnGrp LOS	E	C	C	F	C	B	F	C	F	D	C	D
Approach Vol, veh/h		511			937			1018			1135	
Approach Delay, s/veh		39.1			65.2			53.2			33.1	
Approach LOS		D			E			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	23.9	20.0	15.9	9.5	22.7	13.2	22.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.5	15.5	18.0	5.0	18.5	8.7	24.8
Max Q Clear Time (g_c+I1), s	4.8	21.4	17.5	8.1	6.5	17.6	9.4	9.2
Green Ext Time (p_c), s	0.0	0.0	0.0	1.3	0.0	0.6	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	48.0
HCM 2010 LOS	D

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	17	82	63	14	139	45	785	77	167	1589	52
Future Vol, veh/h	45	17	82	63	14	139	45	785	77	167	1589	52
Conflicting Peds, #/hr	1	0	1	1	0	1	7	0	7	7	0	7
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	5	5	5	2	2	2
Mvmt Flow	48	18	87	67	15	148	48	835	82	178	1690	55

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2603	3101	881	2190	3087	467	1752	0	0	924	0	0
Stage 1	2081	2081	-	979	979	-	-	-	-	-	-	-
Stage 2	522	1020	-	1211	2108	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.2	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.25	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 12	~ 11	290	~ 25	~ 12	542	341	-	-	735	-	-
Stage 1	55	94	-	268	326	-	-	-	-	-	-	-
Stage 2	506	312	-	193	91	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	0	288	-	0	538	339	-	-	731	-	-
Mov Cap-2 Maneuver	-	0	-	-	0	-	-	-	-	-	-	-
Stage 1	~ 39	0	-	188	229	-	-	-	-	-	-	-
Stage 2	242	219	-	-	0	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			2.9	5.3
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	339	-	-	-	-	731	-	-
HCM Lane V/C Ratio	0.141	-	-	-	-	0.243	-	-
HCM Control Delay (s)	17.4	2.3	-	-	-	11.5	4.8	-
HCM Lane LOS	C	A	-	-	-	B	A	-
HCM 95th %tile Q(veh)	0.5	-	-	-	-	0.9	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	35	882	40	140	1613
Future Vol, veh/h	20	35	882	40	140	1613
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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	7	7	2	2
Mvmt Flow	21	37	938	43	149	1716

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2120	495	0	0	985	0
Stage 1	964	-	-	-	-	-
Stage 2	1156	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	43	520	-	-	697	-
Stage 1	331	-	-	-	-	-
Stage 2	262	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	0	518	-	-	695	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	262	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.8	0	5.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	518	695	-
HCM Lane V/C Ratio	-	-	0.113	0.214	-
HCM Control Delay (s)	-	-	12.8	11.6	4.9
HCM Lane LOS	-	-	B	B	A
HCM 95th %tile Q(veh)	-	-	0.4	0.8	-

Intersection						
Int Delay, s/veh	15.8					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	49	44	15	873	1544	89
Future Vol, veh/h	49	44	15	873	1544	89
Conflicting Peds, #/hr	2	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	7	7	2	2
Mvmt Flow	52	46	16	919	1625	94

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2168	862	1721	0	-	0
Stage 1	1674	-	-	-	-	-
Stage 2	494	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.24	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.27	-	-	-
Pot Cap-1 Maneuver	~ 40	298	342	-	-	-
Stage 1	138	-	-	-	-	-
Stage 2	579	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 36	298	341	-	-	-
Mov Cap-2 Maneuver	~ 36	-	-	-	-	-
Stage 1	124	-	-	-	-	-
Stage 2	578	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 434.6	1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	341	-	62	-	-
HCM Lane V/C Ratio	0.046	-	1.579	-	-
HCM Control Delay (s)	16.1	0.7	$ 434.6	-	-
HCM Lane LOS	C	A	F	-	-
HCM 95th %tile Q(veh)	0.1	-	8.7	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	0	5	90	25	50	30	786	125	120	742	407
Future Volume (veh/h)	12	0	5	90	25	50	30	786	125	120	742	407
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1652	1652	1792	1792	1900	1863	1863	1900
Adj Flow Rate, veh/h	13	0	5	96	27	53	32	836	133	128	789	433
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	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
Percent Heavy Veh, %	2	2	2	15	15	15	6	6	6	2	2	2
Cap, veh/h	206	22	34	294	54	196	364	1936	308	462	1453	792
Arrive On Green	0.14	0.00	0.14	0.14	0.14	0.14	0.66	0.66	0.66	0.66	0.66	0.66
Sat Flow, veh/h	482	153	244	1067	384	1386	437	2942	468	577	2208	1204
Grp Volume(v), veh/h	18	0	0	123	0	53	32	484	485	128	631	591
Grp Sat Flow(s),veh/h/ln	878	0	0	1451	0	1386	437	1703	1707	577	1770	1643
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	1.5	1.9	6.1	6.1	6.1	8.5	8.6
Cycle Q Clear(g_c), s	3.3	0.0	0.0	3.2	0.0	1.5	10.5	6.1	6.1	12.2	8.5	8.6
Prop In Lane	0.72		0.28	0.78		1.00	1.00		0.27	1.00		0.73
Lane Grp Cap(c), veh/h	262	0	0	348	0	196	364	1121	1123	462	1164	1081
V/C Ratio(X)	0.07	0.00	0.00	0.35	0.00	0.27	0.09	0.43	0.43	0.28	0.54	0.55
Avail Cap(c_a), veh/h	724	0	0	790	0	665	364	1121	1123	462	1164	1081
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.8	0.0	0.0	17.9	0.0	17.2	6.9	3.7	3.7	6.6	4.1	4.1
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.6	0.0	0.7	0.5	1.2	1.2	1.5	1.8	2.0
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	0.2	0.0	0.0	1.5	0.0	0.6	0.3	3.2	3.2	1.2	4.6	4.4
LnGrp Delay(d),s/veh	16.9	0.0	0.0	18.5	0.0	17.9	7.4	4.9	4.9	8.1	5.9	6.1
LnGrp LOS	B			B		B	A	A	A	A	A	A
Approach Vol, veh/h		18			176			1001			1350	
Approach Delay, s/veh		16.9			18.3			5.0			6.2	
Approach LOS		B			B			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		34.0		10.8		34.0		10.8
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		29.5		21.5		29.5		21.5
Max Q Clear Time (g_c+I1), s		12.5		5.3		14.2		5.2
Green Ext Time (p_c), s		6.5		0.0		8.7		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	6.6
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	258	6	269	16	3	0	488	688	9	23	576	136
Future Volume (vph)	258	6	269	16	3	0	488	688	9	23	576	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00	0.98	1.00	1.00	0.99
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	1.00	0.85		1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.96		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1649	1657	1553		1598		1736	3471	1518	1687	3374	1489
Flt Permitted	0.95	0.95	1.00		1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1649	1657	1553		1667		1736	3471	1518	1687	3374	1489
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	300	7	313	19	3	0	567	800	10	27	670	158
RTOR Reduction (vph)	0	0	261	0	0	0	0	0	5	0	0	113
Lane Group Flow (vph)	153	154	52	0	22	0	567	800	5	27	670	45
Confl. Peds. (#/hr)									3			1
Heavy Vehicles (%)	4%	4%	4%	14%	14%	14%	4%	4%	4%	7%	7%	7%
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4			7		5	2		1	6	
Permitted Phases			4	7					2			6
Actuated Green, G (s)	12.5	12.5	12.5		1.7		21.1	40.6	40.6	2.0	21.5	21.5
Effective Green, g (s)	12.5	12.5	12.5		1.7		21.1	40.6	40.6	2.0	21.5	21.5
Actuated g/C Ratio	0.17	0.17	0.17		0.02		0.28	0.54	0.54	0.03	0.29	0.29
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	275	276	259		37		489	1883	823	45	969	427
v/s Ratio Prot	0.09	c0.09					c0.33	0.23		0.02	c0.20	
v/s Ratio Perm			0.03		c0.01				0.00			0.03
v/c Ratio	0.56	0.56	0.20		0.59		1.16	0.42	0.01	0.60	0.69	0.11
Uniform Delay, d1	28.6	28.6	26.9		36.2		26.8	10.2	7.8	36.0	23.7	19.6
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	2.4	2.4	0.4		23.1		92.5	0.7	0.0	19.7	4.0	0.5
Delay (s)	31.0	31.1	27.2		59.3		119.4	10.9	7.9	55.7	27.7	20.1
Level of Service	C	C	C		E		F	B	A	E	C	C
Approach Delay (s)		29.1			59.3			55.5			27.2	
Approach LOS		C			E			E			C	

Intersection Summary			
HCM 2000 Control Delay	41.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	74.8	Sum of lost time (s)	18.0
Intersection Capacity Utilization	62.2%	ICU Level of Service	B
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)	255	733	230	249	548	331	224	490	256	226	551	224
Future Volume (vph)	255	733	230	249	548	331	224	490	256	226	551	224
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1564	3288	1515	1507	3166	1455	1752	3505	1568	1719	3438	1511
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1564	3288	1515	1507	3166	1455	1752	3505	1568	1719	3438	1511
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	300	862	271	293	645	389	264	576	301	266	648	264
RTOR Reduction (vph)	0	0	155	0	0	266	0	0	226	0	0	201
Lane Group Flow (vph)	270	892	116	264	674	123	264	576	75	266	648	63
Confl. Peds. (#/hr)			2			4						4
Heavy Vehicles (%)	5%	5%	5%	9%	9%	9%	3%	3%	3%	5%	5%	5%
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		7	7		5	2		1	6	
Permitted Phases			4			7			2			6
Actuated Green, G (s)	18.0	18.0	18.0	18.0	18.0	18.0	13.5	22.0	22.0	12.6	21.1	21.1
Effective Green, g (s)	18.0	18.0	18.0	18.0	18.0	18.0	13.5	22.0	22.0	12.6	21.1	21.1
Actuated g/C Ratio	0.20	0.20	0.20	0.20	0.20	0.20	0.15	0.25	0.25	0.14	0.24	0.24
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	317	667	307	306	643	295	266	870	389	244	818	359
v/s Ratio Prot	0.17	c0.27		0.18	c0.21		0.15	0.16		c0.15	c0.19	
v/s Ratio Perm			0.08			0.08			0.05			0.04
v/c Ratio	0.85	1.34	0.38	0.86	1.05	0.42	0.99	0.66	0.19	1.09	0.79	0.18
Uniform Delay, d1	34.0	35.3	30.5	34.1	35.3	30.7	37.5	30.0	26.3	38.0	31.7	26.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	19.2	161.8	0.8	21.3	48.8	1.0	52.9	1.9	0.2	83.8	5.3	0.2
Delay (s)	53.3	197.1	31.3	55.4	84.1	31.7	90.4	31.9	26.5	121.8	37.0	27.1
Level of Service	D	F	C	E	F	C	F	C	C	F	D	C
Approach Delay (s)		138.7			63.0			44.0			53.9	
Approach LOS		F			E			D			D	

Intersection Summary

HCM 2000 Control Delay	78.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	88.6	Sum of lost time (s)	18.0
Intersection Capacity Utilization	78.1%	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)	0	0	0	429	34	446	21	1816	702	327	941	39
Future Volume (vph)	0	0	0	429	34	446	21	1816	702	327	941	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor				0.95	0.95	1.00	1.00	0.95	0.88	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected				0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1681	1697	1552	1770	3539	2725	1770	3515	
Flt Permitted				0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1681	1697	1552	1770	3539	2725	1770	3515	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	442	35	460	22	1872	724	337	970	40
RTOR Reduction (vph)	0	0	0	0	0	212	0	0	0	0	4	0
Lane Group Flow (vph)	0	0	0	239	238	248	22	1872	724	337	1006	0
Confl. Peds. (#/hr)						7			4			1
Turn Type				Split	NA	Perm	Prot	NA	Free	Prot	NA	
Protected Phases				8	8		5	2		1	6	
Permitted Phases						8			Free			
Actuated Green, G (s)				13.6	13.6	13.6	0.8	24.4	61.0	11.0	34.6	
Effective Green, g (s)				13.6	13.6	13.6	0.8	24.4	61.0	11.0	34.6	
Actuated g/C Ratio				0.22	0.22	0.22	0.01	0.40	1.00	0.18	0.57	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)				374	378	346	23	1415	2725	319	1993	
v/s Ratio Prot				0.14	0.14		0.01	c0.53		c0.19	0.29	
v/s Ratio Perm						c0.16			0.27			
v/c Ratio				0.64	0.63	0.72	0.96	1.32	0.27	1.06	0.50	
Uniform Delay, d1				21.5	21.4	21.9	30.1	18.3	0.0	25.0	8.0	
Progression Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2				3.6	3.3	6.9	166.5	150.4	0.2	66.0	0.9	
Delay (s)				25.0	24.7	28.8	196.6	168.7	0.2	91.0	8.9	
Level of Service				C	C	C	F	F	A	F	A	
Approach Delay (s)		0.0			26.8			122.3			29.5	
Approach LOS		A			C			F			C	

Intersection Summary

HCM 2000 Control Delay	78.6	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	61.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	91.2%	ICU Level of Service	F
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 (veh/h)	87	799	150	247	570	194	142	1024	88	153	785	308
Future Volume (veh/h)	87	799	150	247	570	194	142	1024	88	153	785	308
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1827	1827	1827
Adj Flow Rate, veh/h	94	859	161	266	613	209	153	1101	95	165	844	331
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	4	4	4
Cap, veh/h	122	1066	469	144	813	277	168	925	414	202	983	437
Arrive On Green	0.07	0.30	0.30	0.08	0.31	0.31	0.09	0.26	0.26	0.12	0.28	0.28
Sat Flow, veh/h	1774	3539	1558	1774	2593	883	1774	3539	1582	1740	3471	1543
Grp Volume(v), veh/h	94	859	161	266	418	404	153	1101	95	165	844	331
Grp Sat Flow(s),veh/h/ln	1774	1770	1558	1774	1770	1707	1774	1770	1582	1740	1736	1543
Q Serve(g_s), s	3.9	16.8	6.0	6.1	15.9	16.0	6.4	19.6	3.5	6.9	17.3	14.7
Cycle Q Clear(g_c), s	3.9	16.8	6.0	6.1	15.9	16.0	6.4	19.6	3.5	6.9	17.3	14.7
Prop In Lane	1.00		1.00	1.00		0.52	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	122	1066	469	144	555	535	168	925	414	202	983	437
V/C Ratio(X)	0.77	0.81	0.34	1.84	0.75	0.76	0.91	1.19	0.23	0.82	0.86	0.76
Avail Cap(c_a), veh/h	343	1245	548	144	555	535	168	925	414	243	1036	461
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.3	24.2	20.4	34.5	23.2	23.2	33.7	27.7	21.8	32.4	25.5	24.6
Incr Delay (d2), s/veh	9.6	3.5	0.4	405.7	5.8	6.1	44.8	96.2	0.3	16.3	7.1	6.8
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	2.2	8.7	2.6	19.2	8.7	8.4	5.2	21.9	1.6	4.3	9.2	7.1
LnGrp Delay(d),s/veh	44.0	27.7	20.9	440.1	28.9	29.2	78.5	123.9	22.1	48.7	32.6	31.3
LnGrp LOS	D	C	C	F	C	C	E	F	C	D	C	C
Approach Vol, veh/h		1114			1088			1349			1340	
Approach Delay, s/veh		28.1			129.6			111.6			34.3	
Approach LOS		C			F			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	24.1	10.6	27.1	11.6	25.7	9.7	28.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	10.5	19.0	6.1	26.4	7.1	22.4	14.5	18.0
Max Q Clear Time (g_c+I1), s	8.9	21.6	8.1	18.8	8.4	19.3	5.9	18.0
Green Ext Time (p_c), s	0.1	0.0	0.0	3.8	0.0	2.0	0.1	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	75.4
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	57	735	99	121	520	624	135	269	1038	686	253	854
Future Volume (vph)	57	735	99	121	520	624	135	269	1038	686	253	854
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00		1.00	0.95		1.00	0.95	1.00	1.00	0.95
Frpb, ped/bikes	1.00	1.00	0.98		1.00	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	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85		1.00	0.97		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	1549		1770	3433		1770	3539	1560	1719	3438
Flt Permitted	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	1549		1770	3433		1770	3539	1560	1719	3438
Peak-hour factor, PHF	0.93	0.93	0.93	0.92	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	61	790	106	132	559	671	145	289	1116	738	272	918
RTOR Reduction (vph)	0	0	85	0	0	12	0	0	0	217	0	0
Lane Group Flow (vph)	61	790	21	0	691	804	0	289	1116	521	272	918
Confl. Peds. (#/hr)			4				3			1		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	5%	5%
Turn Type	Prot	NA	Perm	Prot	Prot	NA		Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	3	8		5	2		1	6
Permitted Phases			4							2		
Actuated Green, G (s)	8.6	29.4	29.4		44.5	65.3		19.5	40.5	40.5	18.5	39.5
Effective Green, g (s)	8.6	29.4	29.4		44.5	65.3		19.5	40.5	40.5	18.5	39.5
Actuated g/C Ratio	0.06	0.19	0.19		0.29	0.43		0.13	0.27	0.27	0.12	0.26
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	100	689	301		521	1485		228	949	418	210	899
v/s Ratio Prot	0.03	c0.22			c0.39	0.23		c0.16	0.32		0.16	0.27
v/s Ratio Perm			0.01							c0.33		
v/c Ratio	0.61	1.15	0.07		1.33	0.54		1.27	1.18	1.25	1.30	1.02
Uniform Delay, d1	69.5	60.8	49.6		53.2	31.7		65.7	55.2	55.2	66.2	55.7
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	10.1	82.3	0.1		159.7	0.4		150.3	90.3	129.3	163.4	35.5
Delay (s)	79.6	143.1	49.7		212.9	32.1		216.0	145.5	184.5	229.6	91.2
Level of Service	E	F	D		F	C		F	F	F	F	F
Approach Delay (s)		128.7				115.0			168.4			121.7
Approach LOS		F				F			F			F

Intersection Summary			
HCM 2000 Control Delay	138.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	150.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	127.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	15
Future Volume (vph)	15
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frpb, ped/bikes	0.98
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1504
Flt Permitted	1.00
Satd. Flow (perm)	1504
Peak-hour factor, PHF	0.93
Adj. Flow (vph)	16
RTOR Reduction (vph)	12
Lane Group Flow (vph)	4
Confl. Peds. (#/hr)	4
Heavy Vehicles (%)	5%
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	39.5
Effective Green, g (s)	39.5
Actuated g/C Ratio	0.26
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	393
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.01
Uniform Delay, d1	41.2
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	41.3
Level of Service	D
Approach Delay (s)	
Approach LOS	

Intersection Summary

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1543	246	0	1392	8	0	0	244	5	0	6
Future Vol, veh/h	4	1543	246	0	1392	8	0	0	244	5	0	6
Conflicting Peds, #/hr	5	0	0	0	0	5	0	0	0	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	9	2	9
Mvmt Flow	4	1624	259	0	1465	8	0	0	257	5	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1478	0	0	-	-	0	-	-	944	2296	3365	742
Stage 1	-	-	-	-	-	-	-	-	-	1474	1474	-
Stage 2	-	-	-	-	-	-	-	-	-	822	1891	-
Critical Hdwy	4.14	-	-	-	-	-	-	-	6.94	7.68	6.54	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.68	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.68	5.54	-
Follow-up Hdwy	2.22	-	-	-	-	-	-	-	3.32	3.59	4.02	3.39
Pot Cap-1 Maneuver	452	-	-	0	-	-	0	0	263	19	8	343
Stage 1	-	-	-	0	-	-	0	0	-	124	189	-
Stage 2	-	-	-	0	-	-	0	0	-	320	117	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	450	-	-	-	-	-	-	-	263	0	8	342
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	0	8	-
Stage 1	-	-	-	-	-	-	-	-	-	124	188	-
Stage 2	-	-	-	-	-	-	-	-	-	7	117	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	91.2	15.9
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	263	450	-	-	-	-	342
HCM Lane V/C Ratio	0.977	0.009	-	-	-	-	0.034
HCM Control Delay (s)	91.2	13.1	0	-	-	-	15.9
HCM Lane LOS	F	B	A	-	-	-	C
HCM 95th %tile Q(veh)	9.4	0	-	-	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	328	376	70	281	292	30	340	859	645	40	437	316
Future Volume (veh/h)	328	376	70	281	292	30	340	859	645	40	437	316
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.96	1.00		0.96
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	342	392	73	293	304	31	354	895	672	42	455	329
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	278	569	105	296	713	314	219	1205	516	71	911	391
Arrive On Green	0.16	0.19	0.19	0.17	0.20	0.20	0.12	0.34	0.34	0.04	0.26	0.26
Sat Flow, veh/h	1774	2977	549	1774	3539	1560	1774	3539	1514	1774	3539	1519
Grp Volume(v), veh/h	342	232	233	293	304	31	354	895	672	42	455	329
Grp Sat Flow(s),veh/h/ln	1774	1770	1757	1774	1770	1560	1774	1770	1514	1774	1770	1519
Q Serve(g_s), s	10.8	8.4	8.5	11.4	5.2	1.1	8.5	15.4	23.5	1.6	7.5	14.2
Cycle Q Clear(g_c), s	10.8	8.4	8.5	11.4	5.2	1.1	8.5	15.4	23.5	1.6	7.5	14.2
Prop In Lane	1.00		0.31	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	278	338	336	296	713	314	219	1205	516	71	911	391
V/C Ratio(X)	1.23	0.68	0.70	0.99	0.43	0.10	1.62	0.74	1.30	0.59	0.50	0.84
Avail Cap(c_a), veh/h	278	462	459	296	961	423	219	1205	516	129	976	419
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	25.9	26.0	28.6	24.0	22.4	30.2	20.0	22.7	32.5	21.8	24.3
Incr Delay (d2), s/veh	130.8	2.5	2.8	49.3	0.4	0.1	297.9	2.5	150.2	7.6	0.4	13.7
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	15.3	4.3	4.4	9.5	2.6	0.5	22.2	7.9	31.2	0.9	3.7	7.3
LnGrp Delay(d),s/veh	159.9	28.4	28.7	77.9	24.4	22.6	328.1	22.6	173.0	40.1	22.2	37.9
LnGrp LOS	F	C	C	E	C	C	F	C	F	D	C	D
Approach Vol, veh/h		807			628			1921			826	
Approach Delay, s/veh		84.2			49.3			131.5			29.4	
Approach LOS		F			D			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	28.0	16.0	17.7	13.0	22.2	15.3	18.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	22.5	11.5	18.0	8.5	19.0	10.8	18.7
Max Q Clear Time (g_c+I1), s	3.6	25.5	13.4	10.5	10.5	16.2	12.8	7.2
Green Ext Time (p_c), s	0.0	0.0	0.0	1.6	0.0	1.2	0.0	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	89.9
HCM 2010 LOS	F

Intersection												
Int Delay, s/veh	12.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	39	26	45	116	26	257	60	1652	115	250	1148	54
Future Vol, veh/h	39	26	45	116	26	257	60	1652	115	250	1148	54
Conflicting Peds, #/hr	0	0	1	1	0	0	13	0	2	2	0	13
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	5	5	5
Mvmt Flow	42	28	48	125	28	276	65	1776	124	269	1234	58

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2846	3846	660	3140	3813	952	1305	0	0	1902	0	0
Stage 1	1814	1814	-	1970	1970	-	-	-	-	-	-	-
Stage 2	1032	2032	-	1170	1843	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.2	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.25	-	-
Pot Cap-1 Maneuver	~ 8	~ 4	406	~ 5	~ 4	~ 260	526	-	-	297	-	-
Stage 1	81	128	-	~ 64	107	-	-	-	-	-	-	-
Stage 2	249	99	-	205	124	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	0	401	-	0	~ 260	520	-	-	297	-	-
Mov Cap-2 Maneuver	-	0	-	-	0	-	-	-	-	-	-	-
Stage 1	80	0	-	~ 64	107	-	-	-	-	-	-	-
Stage 2	-	99	-	-	0	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.4	31
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	520	-	-	-	-	297	-	-
HCM Lane V/C Ratio	0.124	-	-	-	-	0.905	-	-
HCM Control Delay (s)	12.9	0	-	-	-	69.2	24.1	-
HCM Lane LOS	B	A	-	-	-	F	C	-
HCM 95th %tile Q(veh)	0.4	-	-	-	-	8.4	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection						
Int Delay, s/veh	28					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	195	1642	60	35	1296
Future Vol, veh/h	10	195	1642	60	35	1296
Conflicting Peds, #/hr	0	0	0	3	3	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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	3	3	4	4
Mvmt Flow	11	207	1747	64	37	1379

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2546	909	0	0	1814	0
Stage 1	1782	-	-	-	-	-
Stage 2	764	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.18	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.24	-
Pot Cap-1 Maneuver	22	278	-	-	326	-
Stage 1	120	-	-	-	-	-
Stage 2	420	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	11	277	-	-	325	-
Mov Cap-2 Maneuver	11	-	-	-	-	-
Stage 1	62	-	-	-	-	-
Stage 2	420	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 413.7	0	4.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	127	325	-
HCM Lane V/C Ratio	-	-	1.717	0.115	-
HCM Control Delay (s)	-	-	$ 413.7	17.5	4
HCM Lane LOS	-	-	F	C	A
HCM 95th %tile Q(veh)	-	-	16.4	0.4	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection						
Int Delay, s/veh	4.1					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	99	15	26	1603	1248	58
Future Vol, veh/h	99	15	26	1603	1248	58
Conflicting Peds, #/hr	4	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	3	3	4	4
Mvmt Flow	106	16	28	1724	1342	62

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2297	704	1406	0	-	0
Stage 1	1375	-	-	-	-	-
Stage 2	922	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.16	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.23	-	-	-
Pot Cap-1 Maneuver	~ 33	379	476	-	-	-
Stage 1	200	-	-	-	-	-
Stage 2	348	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	0	378	475	-	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	347	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19	6.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	475	-	378	-	-
HCM Lane V/C Ratio	0.059	-	0.324	-	-
HCM Control Delay (s)	13.1	6.3	19	-	-
HCM Lane LOS	B	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.4	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	1	15	135	48	200	30	1224	120	50	780	153
Future Volume (veh/h)	55	1	15	135	48	200	30	1224	120	50	780	153
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1792	1792	1827	1827	1900	1845	1845	1900
Adj Flow Rate, veh/h	60	1	16	148	53	220	33	1345	132	55	857	168
Adj No. of Lanes	0	1	0	0	1	1	1	2	0	1	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	6	6	6	4	4	4	3	3	3
Cap, veh/h	213	17	28	348	96	324	381	1952	191	255	1785	350
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.61	0.61	0.61	0.61	0.61	0.61
Sat Flow, veh/h	413	80	129	1060	450	1515	537	3194	312	353	2921	573
Grp Volume(v), veh/h	77	0	0	201	0	220	33	728	749	55	514	511
Grp Sat Flow(s),veh/h/ln	622	0	0	1510	0	1515	537	1736	1770	353	1752	1741
Q Serve(g_s), s	2.3	0.0	0.0	0.0	0.0	6.9	1.9	14.5	14.7	6.4	8.3	8.3
Cycle Q Clear(g_c), s	8.4	0.0	0.0	6.1	0.0	6.9	10.2	14.5	14.7	21.1	8.3	8.3
Prop In Lane	0.78		0.21	0.74		1.00	1.00		0.18	1.00		0.33
Lane Grp Cap(c), veh/h	257	0	0	445	0	324	381	1061	1082	255	1071	1064
V/C Ratio(X)	0.30	0.00	0.00	0.45	0.00	0.68	0.09	0.69	0.69	0.22	0.48	0.48
Avail Cap(c_a), veh/h	451	0	0	680	0	573	381	1061	1082	255	1071	1064
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	0.0	0.0	18.3	0.0	18.6	8.3	6.7	6.7	13.9	5.5	5.5
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.7	0.0	2.5	0.4	3.6	3.6	1.9	1.5	1.6
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	1.1	0.0	0.0	2.7	0.0	3.1	0.3	7.7	8.2	0.8	4.5	4.4
LnGrp Delay(d),s/veh	21.0	0.0	0.0	19.0	0.0	21.1	8.8	10.3	10.4	15.8	7.1	7.1
LnGrp LOS	C			B		C	A	B	B	B	A	A
Approach Vol, veh/h		77			421			1510			1080	
Approach Delay, s/veh		21.0			20.1			10.3			7.5	
Approach LOS		C			C			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		36.0		15.5		36.0		15.5
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		31.5		19.5		31.5		19.5
Max Q Clear Time (g_c+I1), s		16.7		10.4		23.1		8.9
Green Ext Time (p_c), s		9.3		0.2		4.7		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	10.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	569	0	463	40	4	8	262	684	17	15	628	158
Future Volume (vph)	569	0	463	40	4	8	262	684	17	15	628	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00	0.98	1.00	1.00	1.00
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	1.00	0.85		0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.95	1.00		0.96		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1665	1665	1568		1398		1719	3438	1500	1703	3406	1524
Flt Permitted	0.95	0.95	1.00		0.86		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1665	1665	1568		1252		1719	3438	1500	1703	3406	1524
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)	605	0	493	43	4	9	279	728	18	16	668	168
RTOR Reduction (vph)	0	0	255	0	9	0	0	0	9	0	0	117
Lane Group Flow (vph)	302	303	238	0	47	0	279	728	9	16	668	51
Confl. Peds. (#/hr)									5			
Heavy Vehicles (%)	3%	3%	3%	28%	28%	28%	5%	5%	5%	6%	6%	6%
Turn Type	Split	NA	Perm	Perm	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4			7		5	2		1	6	
Permitted Phases			4	7					2			6
Actuated Green, G (s)	16.9	16.9	16.9		4.1		15.9	39.1	39.1	0.9	24.1	24.1
Effective Green, g (s)	16.9	16.9	16.9		4.1		15.9	39.1	39.1	0.9	24.1	24.1
Actuated g/C Ratio	0.21	0.21	0.21		0.05		0.20	0.49	0.49	0.01	0.31	0.31
Clearance Time (s)	4.5	4.5	4.5		4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	356	356	335		64		345	1701	742	19	1039	464
v/s Ratio Prot	0.18	c0.18					c0.16	0.21		0.01	c0.20	
v/s Ratio Perm			0.15		c0.04				0.01			0.03
v/c Ratio	0.85	0.85	0.71		0.74		0.81	0.43	0.01	0.84	0.64	0.11
Uniform Delay, d1	29.8	29.8	28.8		36.9		30.1	12.8	10.1	39.0	23.7	19.7
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	16.9	17.4	6.7		36.6		13.0	0.8	0.0	131.7	3.1	0.5
Delay (s)	46.7	47.3	35.5		73.5		43.1	13.6	10.2	170.7	26.8	20.2
Level of Service	D	D	D		E		D	B	B	F	C	C
Approach Delay (s)		41.8			73.5			21.6			28.2	
Approach LOS		D			E			C			C	

Intersection Summary

HCM 2000 Control Delay	31.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	79.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	62.0%	ICU Level of Service	B
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)	337	479	210	190	245	218	282	767	298	277	661	326
Future Volume (vph)	337	479	210	190	245	218	282	767	298	277	661	326
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	0.91	0.91	1.00	0.91	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	0.99	1.00	0.95	0.99	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1579	3303	1528	1535	3205	1509	1752	3505	1568	1719	3438	1517
Flt Permitted	0.95	0.99	1.00	0.95	0.99	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1579	3303	1528	1535	3205	1509	1752	3505	1568	1719	3438	1517
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)	379	538	236	213	275	245	317	862	335	311	743	366
RTOR Reduction (vph)	0	0	187	0	0	201	0	0	246	0	0	285
Lane Group Flow (vph)	296	621	49	158	330	44	317	862	89	311	743	81
Confl. Peds. (#/hr)			3									1
Heavy Vehicles (%)	4%	4%	4%	7%	7%	7%	3%	3%	3%	5%	5%	5%
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	4	4		7	7		5	2		1	6	
Permitted Phases			4			7			2			6
Actuated Green, G (s)	18.0	18.0	18.0	15.4	15.4	15.4	15.5	22.7	22.7	11.8	19.0	19.0
Effective Green, g (s)	18.0	18.0	18.0	15.4	15.4	15.4	15.5	22.7	22.7	11.8	19.0	19.0
Actuated g/C Ratio	0.21	0.21	0.21	0.18	0.18	0.18	0.18	0.26	0.26	0.14	0.22	0.22
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	330	692	320	275	574	270	316	926	414	236	760	335
v/s Ratio Prot	0.19	c0.19		0.10	c0.10		0.18	c0.25		c0.18	0.22	
v/s Ratio Perm			0.03			0.03			0.06			0.05
v/c Ratio	0.90	0.90	0.15	0.57	0.57	0.16	1.00	0.93	0.21	1.32	0.98	0.24
Uniform Delay, d1	33.0	33.1	27.7	32.3	32.3	29.8	35.2	30.8	24.6	37.1	33.2	27.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	25.3	14.3	0.2	2.9	1.4	0.3	51.4	15.5	0.3	169.7	26.9	0.4
Delay (s)	58.4	47.4	28.0	35.1	33.7	30.1	86.6	46.3	24.9	206.7	60.1	27.9
Level of Service	E	D	C	D	C	C	F	D	C	F	E	C
Approach Delay (s)		46.2			32.8			50.0			83.9	
Approach LOS		D			C			D			F	

Intersection Summary

HCM 2000 Control Delay	56.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	85.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	75.1%	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)	0	0	0	578	17	204	18	918	304	211	1424	21
Future Volume (vph)	0	0	0	578	17	204	18	918	304	211	1424	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor				0.95	0.95	1.00	1.00	0.95	0.88	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected				0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1498	1506	1396	1577	3154	2427	1593	3177	
Flt Permitted				0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1498	1506	1396	1577	3154	2427	1593	3177	
Peak-hour factor, PHF	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Adj. Flow (vph)	0	0	0	688	20	243	21	1093	362	251	1695	25
RTOR Reduction (vph)	0	0	0	0	0	18	0	0	0	0	1	0
Lane Group Flow (vph)	0	0	0	351	357	225	21	1093	362	251	1719	0
Confl. Peds. (#/hr)						4			6			2
Heavy Vehicles (%)	2%	2%	2%	3%	3%	3%	3%	3%	3%	2%	2%	2%
Turn Type				Split	NA	pm+ov	Prot	NA	Free	Prot	NA	
Protected Phases				8	8	1	5	2		1	6	
Permitted Phases						8			Free			
Actuated Green, G (s)				22.5	22.5	38.7	1.6	40.5	91.2	16.2	55.1	
Effective Green, g (s)				22.5	22.5	38.7	1.6	40.5	91.2	16.2	55.1	
Actuated g/C Ratio				0.25	0.25	0.42	0.02	0.44	1.00	0.18	0.60	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)				369	371	653	27	1400	2427	282	1919	
v/s Ratio Prot				0.23	c0.24	0.06	0.01	0.35		c0.16	c0.54	
v/s Ratio Perm						0.10			0.15			
v/c Ratio				0.95	0.96	0.34	0.78	0.78	0.15	0.89	0.90	
Uniform Delay, d1				33.8	33.9	17.7	44.6	21.6	0.0	36.6	15.6	
Progression Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2				34.2	36.7	0.3	81.9	4.4	0.1	27.4	7.0	
Delay (s)				68.0	70.6	18.0	126.5	26.0	0.1	64.0	22.6	
Level of Service				E	E	B	F	C	A	E	C	
Approach Delay (s)		0.0			56.2			21.1			27.9	
Approach LOS		A			E			C			C	

Intersection Summary

HCM 2000 Control Delay	31.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	91.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.1%	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 (veh/h)	130	416	253	138	563	92	115	660	60	58	940	153
Future Volume (veh/h)	130	416	253	138	563	92	115	660	60	58	940	153
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1845	1845	1900	1776	1776	1776	1863	1863	1863
Adj Flow Rate, veh/h	153	489	298	162	662	108	135	776	71	68	1106	180
Adj No. of Lanes	1	2	1	1	2	0	1	2	1	1	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	3	3	3	7	7	7	2	2	2
Cap, veh/h	177	803	503	188	708	115	160	1316	587	87	1219	543
Arrive On Green	0.10	0.23	0.23	0.11	0.23	0.23	0.09	0.39	0.39	0.05	0.34	0.34
Sat Flow, veh/h	1774	3539	1556	1757	3018	492	1691	3374	1506	1774	3539	1576
Grp Volume(v), veh/h	153	489	298	162	384	386	135	776	71	68	1106	180
Grp Sat Flow(s),veh/h/ln	1774	1770	1556	1757	1752	1758	1691	1687	1506	1774	1770	1576
Q Serve(g_s), s	6.7	9.8	12.8	7.2	17.0	17.1	6.2	14.5	2.4	3.0	23.6	6.7
Cycle Q Clear(g_c), s	6.7	9.8	12.8	7.2	17.0	17.1	6.2	14.5	2.4	3.0	23.6	6.7
Prop In Lane	1.00		1.00	1.00		0.28	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	177	803	503	188	411	412	160	1316	587	87	1219	543
V/C Ratio(X)	0.87	0.61	0.59	0.86	0.93	0.94	0.84	0.59	0.12	0.78	0.91	0.33
Avail Cap(c_a), veh/h	177	803	503	188	411	412	160	1316	587	130	1249	556
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.2	27.5	22.6	34.8	29.8	29.8	35.3	19.2	15.5	37.3	24.8	19.2
Incr Delay (d2), s/veh	33.5	1.3	1.9	30.9	28.5	28.9	31.8	0.7	0.1	16.1	9.6	0.4
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	5.0	5.0	5.7	5.1	11.5	11.6	4.3	6.8	1.0	1.9	13.1	3.0
LnGrp Delay(d),s/veh	68.7	28.9	24.5	65.8	58.3	58.7	67.1	19.9	15.6	53.4	34.4	19.6
LnGrp LOS	E	C	C	E	E	E	E	B	B	D	C	B
Approach Vol, veh/h		940			932			982			1354	
Approach Delay, s/veh		33.9			59.8			26.1			33.4	
Approach LOS		C			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	35.4	13.0	22.5	12.0	31.8	12.4	23.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.8	29.7	8.5	18.0	7.5	28.0	7.9	18.6
Max Q Clear Time (g_c+I1), s	5.0	16.5	9.2	14.8	8.2	25.6	8.7	19.1
Green Ext Time (p_c), s	0.0	4.7	0.0	1.4	0.0	1.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	37.6
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	49	495	110	81	738	832	91	89	654	220	214	980
Future Volume (vph)	49	495	110	81	738	832	91	89	654	220	214	980
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00		0.97	0.95		1.00	0.95	1.00	1.00	0.95
Frpb, ped/bikes	1.00	1.00	0.98		1.00	1.00		1.00	1.00	0.98	1.00	1.00
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	1.00	0.85		1.00	0.99		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	1559		3433	3482		1719	3438	1515	1752	3505
Flt Permitted	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	1559		3433	3482		1719	3438	1515	1752	3505
Peak-hour factor, PHF	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	54	550	122	88	820	924	101	99	727	244	238	1089
RTOR Reduction (vph)	0	0	100	0	0	8	0	0	0	187	0	0
Lane Group Flow (vph)	54	550	22	0	908	1017	0	99	727	57	238	1089
Confl. Peds. (#/hr)			2				1			2		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	5%	5%	5%	3%	3%
Turn Type	Prot	NA	Perm	Prot	Prot	NA		Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	3	8		5	2		1	6
Permitted Phases			4							2		
Actuated Green, G (s)	4.7	18.5	18.5		26.1	39.9		6.5	23.3	23.3	14.6	31.4
Effective Green, g (s)	4.7	18.5	18.5		26.1	39.9		6.5	23.3	23.3	14.6	31.4
Actuated g/C Ratio	0.05	0.18	0.18		0.26	0.40		0.06	0.23	0.23	0.15	0.31
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	82	651	286		891	1382		111	797	351	254	1095
v/s Ratio Prot	0.03	c0.16			c0.26	0.29		0.06	0.21		c0.14	c0.31
v/s Ratio Perm			0.01							0.04		
v/c Ratio	0.66	0.84	0.08		1.02	0.74		0.89	0.91	0.16	0.94	0.99
Uniform Delay, d1	47.1	39.6	33.9		37.2	25.8		46.7	37.6	30.8	42.5	34.5
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	17.5	9.8	0.1		35.0	2.1		52.8	16.5	1.0	39.3	25.9
Delay (s)	64.6	49.4	34.1		72.2	27.9		99.5	54.1	31.8	81.7	60.4
Level of Service	E	D	C		E	C		F	D	C	F	E
Approach Delay (s)		48.0				48.7			53.2			63.8
Approach LOS		D				D			D			E

Intersection Summary			
HCM 2000 Control Delay	53.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	100.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	84.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	12
Future Volume (vph)	12
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frpb, ped/bikes	0.99
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1547
Flt Permitted	1.00
Satd. Flow (perm)	1547
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	13
RTOR Reduction (vph)	9
Lane Group Flow (vph)	4
Confl. Peds. (#/hr)	1
Heavy Vehicles (%)	3%
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	31.4
Effective Green, g (s)	31.4
Actuated g/C Ratio	0.31
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	483
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.01
Uniform Delay, d1	23.8
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	23.8
Level of Service	C
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	49	495	110	81	738	832	91	95	654	220	209	980
Future Volume (vph)	49	495	110	81	738	832	91	95	654	220	209	980
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00		0.97	0.95		1.00	0.95	0.88	1.00	0.95
Frpb, ped/bikes	1.00	1.00	0.98		1.00	1.00		1.00	1.00	0.97	1.00	1.00
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	1.00	0.85		1.00	0.99		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	1559		3433	3482		1719	3438	2637	1752	3505
Flt Permitted	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	1559		3433	3482		1719	3438	2637	1752	3505
Peak-hour factor, PHF	0.90	0.90	0.90	0.92	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	54	550	122	88	820	924	101	106	727	244	232	1089
RTOR Reduction (vph)	0	0	101	0	0	7	0	0	0	182	0	0
Lane Group Flow (vph)	54	550	21	0	908	1018	0	106	727	62	232	1089
Confl. Peds. (#/hr)			2				1			2		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	5%	5%	5%	3%	3%
Turn Type	Prot	NA	Perm	Prot	Prot	NA		Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	3	8		5	2		1	6
Permitted Phases			4							2		
Actuated Green, G (s)	4.9	19.0	19.0		30.1	44.2		7.8	28.2	28.2	15.6	36.0
Effective Green, g (s)	4.9	19.0	19.0		30.1	44.2		7.8	28.2	28.2	15.6	36.0
Actuated g/C Ratio	0.04	0.17	0.17		0.27	0.40		0.07	0.25	0.25	0.14	0.32
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	78	606	267		931	1387		120	874	670	246	1137
v/s Ratio Prot	0.03	c0.16			c0.26	0.29		0.06	0.21		c0.13	c0.31
v/s Ratio Perm			0.01							0.02		
v/c Ratio	0.69	0.91	0.08		0.98	0.73		0.88	0.83	0.09	0.94	0.96
Uniform Delay, d1	52.3	45.1	38.6		40.0	28.3		51.1	39.1	31.6	47.2	36.7
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	23.3	17.3	0.1		23.4	2.0		48.0	9.1	0.3	41.7	18.3
Delay (s)	75.5	62.4	38.7		63.4	30.4		99.1	48.2	31.9	88.9	55.0
Level of Service	E	E	D		E	C		F	D	C	F	E
Approach Delay (s)		59.4				45.9			49.5			60.6
Approach LOS		E				D			D			E

Intersection Summary			
HCM 2000 Control Delay	52.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	110.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	84.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	12
Future Volume (vph)	12
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frpb, ped/bikes	0.99
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1546
Flt Permitted	1.00
Satd. Flow (perm)	1546
Peak-hour factor, PHF	0.90
Adj. Flow (vph)	13
RTOR Reduction (vph)	9
Lane Group Flow (vph)	4
Confl. Peds. (#/hr)	1
Heavy Vehicles (%)	3%
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	36.0
Effective Green, g (s)	36.0
Actuated g/C Ratio	0.32
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	501
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.01
Uniform Delay, d1	25.4
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	25.4
Level of Service	C
Approach Delay (s)	
Approach LOS	

Intersection Summary

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	869	171	0	1735	12	0	0	133	0	0	7
Future Vol, veh/h	0	869	171	0	1735	12	0	0	133	0	0	7
Conflicting Peds, #/hr	2	0	0	0	0	2	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	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	3	3	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	966	190	0	1928	13	0	0	148	0	0	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	578	-	-	974
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.94	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.32	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	459	0	0	251
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	459	-	-	250
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	16.5	19.9
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	459	-	-	-	-	250
HCM Lane V/C Ratio	0.322	-	-	-	-	0.031
HCM Control Delay (s)	16.5	-	-	-	-	19.9
HCM Lane LOS	C	-	-	-	-	C
HCM 95th %tile Q(veh)	1.4	-	-	-	-	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	181	184	110	425	417	30	110	417	420	70	638	348
Future Volume (veh/h)	181	184	110	425	417	30	110	417	420	70	638	348
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1845	1845	1900	1863	1863	1863	1845	1845	1845	1863	1863	1863
Adj Flow Rate, veh/h	195	198	118	457	448	32	118	448	452	75	686	374
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	2	2	2	3	3	3	2	2	2
Cap, veh/h	239	331	188	498	1059	466	148	1010	881	96	914	405
Arrive On Green	0.14	0.15	0.15	0.28	0.30	0.30	0.08	0.29	0.29	0.05	0.26	0.26
Sat Flow, veh/h	1757	2141	1214	1774	3539	1556	1757	3505	1530	1774	3539	1570
Grp Volume(v), veh/h	195	160	156	457	448	32	118	448	452	75	686	374
Grp Sat Flow(s),veh/h/ln	1757	1752	1602	1774	1770	1556	1757	1752	1530	1774	1770	1570
Q Serve(g_s), s	8.7	6.9	7.4	20.2	8.2	1.2	5.3	8.5	14.6	3.4	14.5	18.8
Cycle Q Clear(g_c), s	8.7	6.9	7.4	20.2	8.2	1.2	5.3	8.5	14.6	3.4	14.5	18.8
Prop In Lane	1.00		0.76	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	239	271	248	498	1059	466	148	1010	881	96	914	405
V/C Ratio(X)	0.81	0.59	0.63	0.92	0.42	0.07	0.80	0.44	0.51	0.78	0.75	0.92
Avail Cap(c_a), veh/h	397	389	356	558	1100	484	163	1010	881	142	917	407
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.0	31.9	32.1	28.2	22.8	20.3	36.4	23.5	10.7	37.9	27.7	29.3
Incr Delay (d2), s/veh	6.6	2.1	2.6	19.0	0.3	0.1	21.9	0.3	0.5	14.8	3.5	26.3
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	4.7	3.5	3.4	12.5	4.1	0.5	3.5	4.1	6.3	2.1	7.5	11.1
LnGrp Delay(d),s/veh	40.6	33.9	34.7	47.2	23.1	20.4	58.4	23.9	11.2	52.7	31.2	55.6
LnGrp LOS	D	C	C	D	C	C	E	C	B	D	C	E
Approach Vol, veh/h		511			937			1018			1135	
Approach Delay, s/veh		36.7			34.8			22.2			40.6	
Approach LOS		D			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	27.9	27.3	17.0	11.3	25.4	15.6	28.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	6.5	22.0	25.5	18.0	7.5	21.0	18.3	25.2
Max Q Clear Time (g_c+I1), s	5.4	16.6	22.2	9.4	7.3	20.8	10.7	10.2
Green Ext Time (p_c), s	0.0	2.3	0.5	1.2	0.0	0.1	0.3	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	33.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	17	82	63	14	139	45	785	77	167	1589	52
Future Volume (veh/h)	45	17	82	63	14	139	45	785	77	167	1589	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1863	1810	1810	1900	1863	1863	1900
Adj Flow Rate, veh/h	48	18	87	67	15	148	48	835	82	178	1690	55
Adj No. of Lanes	0	1	1	0	1	1	1	2	0	1	2	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
Percent Heavy Veh, %	2	2	2	2	2	2	5	5	5	2	2	2
Cap, veh/h	99	22	402	104	13	602	62	1355	133	224	1816	59
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.04	0.43	0.43	0.13	0.52	0.52
Sat Flow, veh/h	0	87	1581	0	52	1581	1723	3160	310	1774	3498	113
Grp Volume(v), veh/h	66	0	87	82	0	148	48	454	463	178	852	893
Grp Sat Flow(s),veh/h/ln	87	0	1581	52	0	1581	1723	1719	1752	1774	1770	1842
Q Serve(g_s), s	0.0	0.0	2.7	0.0	0.0	4.0	1.7	12.9	12.9	6.1	28.1	28.5
Cycle Q Clear(g_c), s	16.0	0.0	2.7	16.0	0.0	4.0	1.7	12.9	12.9	6.1	28.1	28.5
Prop In Lane	0.73		1.00	0.82		1.00	1.00		0.18	1.00		0.06
Lane Grp Cap(c), veh/h	121	0	402	117	0	602	62	737	751	224	919	956
V/C Ratio(X)	0.55	0.00	0.22	0.70	0.00	0.25	0.77	0.62	0.62	0.79	0.93	0.93
Avail Cap(c_a), veh/h	121	0	402	117	0	602	110	737	751	366	928	966
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.2	0.0	18.5	28.9	0.0	13.3	30.1	14.0	14.0	26.7	14.0	14.1
Incr Delay (d2), s/veh	5.0	0.0	0.3	16.8	0.0	0.2	18.0	1.5	1.5	6.2	15.0	15.5
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	1.3	0.0	1.2	2.0	0.0	1.8	1.1	6.4	6.5	3.4	17.3	18.2
LnGrp Delay(d),s/veh	31.2	0.0	18.8	45.8	0.0	13.5	48.1	15.5	15.5	32.9	29.0	29.6
LnGrp LOS	C		B	D		B	D	B	B	C	C	C
Approach Vol, veh/h		153			230			965			1923	
Approach Delay, s/veh		24.2			25.0			17.1			29.7	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.0	31.0		20.0	6.3	36.7		20.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	13.0	24.0		16.0	4.0	33.0		16.0
Max Q Clear Time (g_c+I1), s	8.1	14.9		18.0	3.7	30.5		18.0
Green Ext Time (p_c), s	0.2	3.9		0.0	0.0	2.2		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		25.4
HCM 2010 LOS		C

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	49	44	15	873	1544	89
Future Vol, veh/h	49	44	15	873	1544	89
Conflicting Peds, #/hr	2	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	7	7	2	2
Mvmt Flow	52	46	16	919	1625	94

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2168	862	1721	0	-	0
Stage 1	1674	-	-	-	-	-
Stage 2	494	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.24	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.27	-	-	-
Pot Cap-1 Maneuver	~ 40	298	342	-	-	-
Stage 1	138	-	-	-	-	-
Stage 2	579	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 38	298	341	-	-	-
Mov Cap-2 Maneuver	107	-	-	-	-	-
Stage 1	131	-	-	-	-	-
Stage 2	578	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	44.2	0.3	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	341	-	107	298	-	-
HCM Lane V/C Ratio	0.046	-	0.482	0.155	-	-
HCM Control Delay (s)	16.1	-	66.6	19.3	-	-
HCM Lane LOS	C	-	F	C	-	-
HCM 95th %tile Q(veh)	0.1	-	2.1	0.5	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	255	733	230	249	548	331	224	490	256	226	551	224
Future Volume (veh/h)	255	733	230	249	548	331	224	490	256	226	551	224
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1810	1810	1810	1743	1743	1743	1845	1845	1845	1810	1810	1810
Adj Flow Rate, veh/h	300	862	271	293	645	389	264	576	301	266	648	264
Adj No. of Lanes	2	2	1	2	2	1	1	2	1	1	2	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	5	5	5	9	9	9	3	3	3	5	5	5
Cap, veh/h	382	920	411	347	866	385	292	788	352	295	790	352
Arrive On Green	0.11	0.27	0.27	0.11	0.26	0.26	0.17	0.22	0.22	0.17	0.23	0.23
Sat Flow, veh/h	3343	3438	1535	3221	3312	1475	1757	3505	1568	1723	3438	1530
Grp Volume(v), veh/h	300	862	271	293	645	389	264	576	301	266	648	264
Grp Sat Flow(s),veh/h/ln	1672	1719	1535	1610	1656	1475	1757	1752	1568	1723	1719	1530
Q Serve(g_s), s	6.9	19.3	12.4	7.0	14.1	20.6	11.6	12.0	14.5	11.9	14.1	12.7
Cycle Q Clear(g_c), s	6.9	19.3	12.4	7.0	14.1	20.6	11.6	12.0	14.5	11.9	14.1	12.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	382	920	411	347	866	385	292	788	352	295	790	352
V/C Ratio(X)	0.79	0.94	0.66	0.84	0.75	1.01	0.90	0.73	0.85	0.90	0.82	0.75
Avail Cap(c_a), veh/h	420	920	411	347	866	385	292	840	376	295	842	375
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.0	28.2	25.7	34.5	26.7	29.1	32.2	28.3	29.3	32.0	28.8	28.2
Incr Delay (d2), s/veh	8.7	16.5	3.9	17.0	3.5	48.2	29.4	3.1	16.4	28.6	6.2	7.7
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	3.6	11.2	5.7	4.0	6.9	13.5	8.0	6.1	7.9	8.0	7.3	6.1
LnGrp Delay(d),s/veh	42.7	44.7	29.5	51.5	30.2	77.3	61.6	31.4	45.7	60.6	35.0	36.0
LnGrp LOS	D	D	C	D	C	F	E	C	D	E	C	D
Approach Vol, veh/h		1433			1327			1141			1178	
Approach Delay, s/veh		41.4			48.7			42.2			41.0	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	22.2	13.0	25.6	17.6	22.6	13.5	25.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	13.5	18.9	8.5	21.1	13.1	19.3	9.9	19.7
Max Q Clear Time (g_c+I1), s	13.9	16.5	9.0	21.3	13.6	16.1	8.9	22.6
Green Ext Time (p_c), s	0.0	1.2	0.0	0.0	0.0	1.6	0.1	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	43.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	429	34	446	21	1816	702	327	941	39
Future Volume (vph)	0	0	0	429	34	446	21	1816	702	327	941	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor				0.95	0.95	1.00	1.00	0.95	0.88	1.00	0.95	
Frpb, ped/bikes				1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	
Flpb, ped/bikes				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt				1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected				0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)				1681	1697	1565	1770	3539	2725	1770	3515	
Flt Permitted				0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)				1681	1697	1565	1770	3539	2725	1770	3515	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	0	442	35	460	22	1872	724	337	970	40
RTOR Reduction (vph)	0	0	0	0	0	8	0	0	0	0	3	0
Lane Group Flow (vph)	0	0	0	239	238	452	22	1872	724	337	1007	0
Confl. Peds. (#/hr)						7			4			1
Turn Type				Split	NA	pm+ov	Prot	NA	Free	Prot	NA	
Protected Phases				8	8	1	5	2		1	6	
Permitted Phases						8			Free			
Actuated Green, G (s)				15.2	15.2	31.2	2.0	48.5	91.7	16.0	62.5	
Effective Green, g (s)				15.2	15.2	31.2	2.0	48.5	91.7	16.0	62.5	
Actuated g/C Ratio				0.17	0.17	0.34	0.02	0.53	1.00	0.17	0.68	
Clearance Time (s)				4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)				278	281	600	38	1871	2725	308	2395	
v/s Ratio Prot				c0.14	0.14	c0.13	0.01	c0.53		c0.19	0.29	
v/s Ratio Perm						0.16			0.27			
v/c Ratio				0.86	0.85	0.75	0.58	1.00	0.27	1.09	0.42	
Uniform Delay, d1				37.2	37.1	26.8	44.4	21.6	0.0	37.9	6.5	
Progression Factor				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2				22.3	20.4	5.3	19.6	20.9	0.2	78.9	0.5	
Delay (s)				59.5	57.5	32.2	64.0	42.5	0.2	116.7	7.1	
Level of Service				E	E	C	E	D	A	F	A	
Approach Delay (s)		0.0			45.6			31.0			34.5	
Approach LOS		A			D			C			C	

Intersection Summary

HCM 2000 Control Delay	34.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	91.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	91.2%	ICU Level of Service	F
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)	87	799	150	247	570	194	142	1024	88	153	785	308
Future Volume (vph)	87	799	150	247	570	194	142	1024	88	153	785	308
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00		1.00	1.00	0.99	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1542	1770	3404		1770	3539	1562	1736	3471	1519
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1542	1770	3404		1770	3539	1562	1736	3471	1519
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)	94	859	161	266	613	209	153	1101	95	165	844	331
RTOR Reduction (vph)	0	0	73	0	33	0	0	0	65	0	0	209
Lane Group Flow (vph)	94	859	88	266	789	0	153	1101	30	165	844	122
Confl. Peds. (#/hr)			16						1			6
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	4%	4%	4%
Turn Type	Prot	NA	pm+ov	Prot	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	7.0	25.4	36.9	15.5	33.9		11.5	32.0	32.0	10.0	30.5	30.5
Effective Green, g (s)	7.0	25.4	36.9	15.5	33.9		11.5	32.0	32.0	10.0	30.5	30.5
Actuated g/C Ratio	0.07	0.25	0.37	0.15	0.34		0.11	0.32	0.32	0.10	0.30	0.30
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	122	890	632	271	1143		201	1122	495	172	1049	459
v/s Ratio Prot	0.05	c0.24	0.02	c0.15	0.23		0.09	c0.31		c0.10	0.24	
v/s Ratio Perm			0.04						0.02			0.08
v/c Ratio	0.77	0.97	0.14	0.98	0.69		0.76	0.98	0.06	0.96	0.80	0.27
Uniform Delay, d1	46.2	37.3	21.4	42.6	29.0		43.4	34.2	24.0	45.2	32.5	26.7
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	25.4	21.9	0.1	49.3	1.8		15.6	22.3	0.1	56.0	4.6	0.3
Delay (s)	71.5	59.2	21.5	91.9	30.8		58.9	56.5	24.0	101.2	37.0	27.0
Level of Service	E	E	C	F	C		E	E	C	F	D	C
Approach Delay (s)		54.8			45.7			54.5			42.5	
Approach LOS		D			D			D			D	

Intersection Summary

HCM 2000 Control Delay	49.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	100.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	87.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	61	731	99	121	520	624	135	269	1038	686	253	854
Future Volume (vph)	61	731	99	121	520	624	135	269	1038	686	253	854
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00		0.97	0.95		1.00	0.95	1.00	1.00	0.95
Frpb, ped/bikes	1.00	1.00	0.98		1.00	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	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85		1.00	0.97		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	1552		3433	3434		1770	3539	1561	1719	3438
Flt Permitted	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	1552		3433	3434		1770	3539	1561	1719	3438
Peak-hour factor, PHF	0.93	0.93	0.93	0.92	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	66	786	106	132	559	671	145	289	1116	738	272	918
RTOR Reduction (vph)	0	0	85	0	0	15	0	0	0	87	0	0
Lane Group Flow (vph)	66	786	21	0	691	801	0	289	1116	651	272	918
Confl. Peds. (#/hr)			4				3			1		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	5%	5%
Turn Type	Prot	NA	Perm	Prot	Prot	NA		Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	3	8		5	2		1	6
Permitted Phases			4							2		
Actuated Green, G (s)	5.8	24.4	24.4		19.5	38.1		20.5	43.5	43.5	15.5	38.5
Effective Green, g (s)	5.8	24.4	24.4		19.5	38.1		20.5	43.5	43.5	15.5	38.5
Actuated g/C Ratio	0.05	0.20	0.20		0.16	0.32		0.17	0.36	0.36	0.13	0.32
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	84	714	313		553	1082		300	1273	561	220	1094
v/s Ratio Prot	0.04	c0.22			c0.20	0.23		0.16	0.32		c0.16	0.27
v/s Ratio Perm			0.01							c0.42		
v/c Ratio	0.79	1.10	0.07		1.25	0.74		0.96	0.88	1.16	1.24	0.84
Uniform Delay, d1	56.9	48.2	39.1		50.7	37.0		49.8	36.2	38.7	52.7	38.3
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	37.0	64.7	0.1		126.7	2.8		41.8	8.7	90.6	139.1	7.8
Delay (s)	94.0	112.9	39.1		177.4	39.7		91.6	44.9	129.3	191.8	46.1
Level of Service	F	F	D		F	D		F	D	F	F	D
Approach Delay (s)		103.5				102.9			80.3			78.7
Approach LOS		F				F			F			E

Intersection Summary

HCM 2000 Control Delay	89.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	120.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	110.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	15
Future Volume (vph)	15
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frpb, ped/bikes	0.98
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1507
Flt Permitted	1.00
Satd. Flow (perm)	1507
Peak-hour factor, PHF	0.93
Adj. Flow (vph)	16
RTOR Reduction (vph)	11
Lane Group Flow (vph)	5
Confl. Peds. (#/hr)	4
Heavy Vehicles (%)	5%
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	38.5
Effective Green, g (s)	38.5
Actuated g/C Ratio	0.32
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	479
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.01
Uniform Delay, d1	28.2
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	28.2
Level of Service	C
Approach Delay (s)	
Approach LOS	

Intersection Summary

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	61	731	99	121	520	624	135	269	1038	686	253	854
Future Volume (vph)	61	731	99	121	520	624	135	269	1038	686	253	854
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Lane Util. Factor	1.00	0.95	1.00		0.97	0.95		1.00	0.95	0.88	1.00	0.95
Frpb, ped/bikes	1.00	1.00	0.98		1.00	1.00		1.00	1.00	0.98	1.00	1.00
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	1.00	0.85		1.00	0.97		1.00	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	1551		3433	3434		1770	3539	2721	1719	3438
Flt Permitted	0.95	1.00	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	1551		3433	3434		1770	3539	2721	1719	3438
Peak-hour factor, PHF	0.93	0.93	0.93	0.92	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	66	786	106	132	559	671	145	289	1116	738	272	918
RTOR Reduction (vph)	0	0	83	0	0	14	0	0	0	198	0	0
Lane Group Flow (vph)	66	786	23	0	691	802	0	289	1116	540	272	918
Confl. Peds. (#/hr)			4				3			1		
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	5%	5%
Turn Type	Prot	NA	Perm	Prot	Prot	NA		Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	3	8		5	2		1	6
Permitted Phases			4							2		
Actuated Green, G (s)	7.9	28.4	28.4		24.5	45.0		22.2	40.5	40.5	19.5	37.8
Effective Green, g (s)	7.9	28.4	28.4		24.5	45.0		22.2	40.5	40.5	19.5	37.8
Actuated g/C Ratio	0.06	0.22	0.22		0.19	0.34		0.17	0.31	0.31	0.15	0.29
Clearance Time (s)	4.5	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	106	767	336		642	1180		300	1094	841	256	992
v/s Ratio Prot	0.04	c0.22			c0.20	0.23		0.16	c0.32		c0.16	0.27
v/s Ratio Perm			0.01							0.20		
v/c Ratio	0.62	1.02	0.07		1.08	0.68		0.96	1.02	0.64	1.06	0.93
Uniform Delay, d1	60.0	51.2	40.7		53.2	36.8		53.9	45.2	39.0	55.7	45.2
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	10.9	38.9	0.1		57.8	1.6		41.8	32.4	3.7	73.7	15.4
Delay (s)	70.9	90.2	40.8		111.0	38.4		95.7	77.6	42.7	129.4	60.6
Level of Service	E	F	D		F	D		F	E	D	F	E
Approach Delay (s)		83.4				71.7			68.0			75.8
Approach LOS		F				E			E			E

Intersection Summary

HCM 2000 Control Delay	73.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	130.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	96.2%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBR
Lane Configurations	
Traffic Volume (vph)	15
Future Volume (vph)	15
Ideal Flow (vphpl)	1900
Total Lost time (s)	4.5
Lane Util. Factor	1.00
Frpb, ped/bikes	0.98
Flpb, ped/bikes	1.00
Frt	0.85
Flt Protected	1.00
Satd. Flow (prot)	1506
Flt Permitted	1.00
Satd. Flow (perm)	1506
Peak-hour factor, PHF	0.93
Adj. Flow (vph)	16
RTOR Reduction (vph)	11
Lane Group Flow (vph)	5
Confl. Peds. (#/hr)	4
Heavy Vehicles (%)	5%
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Actuated Green, G (s)	37.8
Effective Green, g (s)	37.8
Actuated g/C Ratio	0.29
Clearance Time (s)	4.5
Vehicle Extension (s)	3.0
Lane Grp Cap (vph)	434
v/s Ratio Prot	
v/s Ratio Perm	0.00
v/c Ratio	0.01
Uniform Delay, d1	33.2
Progression Factor	1.00
Incremental Delay, d2	0.0
Delay (s)	33.3
Level of Service	C
Approach Delay (s)	
Approach LOS	
Intersection Summary	

Intersection

Int Delay, s/veh	7.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱			↑↑↱				↱			↱
Traffic Vol, veh/h	0	1548	246	0	1392	8	0	0	244	0	0	6
Future Vol, veh/h	0	1548	246	0	1392	8	0	0	244	0	0	6
Conflicting Peds, #/hr	5	0	3	3	0	5	0	0	2	2	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	9	2	9
Mvmt Flow	0	1665	265	0	1497	9	0	0	262	0	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	970	-	-	758
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	6.94	-	-	7.08
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.32	-	-	3.39
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	~ 253	0	0	335
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	~ 252	-	-	334
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	110.9	16
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	252	-	-	-	-	334
HCM Lane V/C Ratio	1.041	-	-	-	-	0.019
HCM Control Delay (s)	110.9	-	-	-	-	16
HCM Lane LOS	F	-	-	-	-	C
HCM 95th %tile Q(veh)	10.6	-	-	-	-	0.1

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	328	376	70	281	292	30	340	859	645	40	437	316
Future Volume (veh/h)	328	376	70	281	292	30	340	859	645	40	437	316
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.96	1.00		0.95
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
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	342	392	73	293	304	31	354	895	672	42	455	329
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	364	526	97	328	553	243	377	1381	887	66	760	323
Arrive On Green	0.21	0.18	0.18	0.18	0.16	0.16	0.21	0.39	0.39	0.04	0.21	0.21
Sat Flow, veh/h	1774	2976	549	1774	3539	1553	1774	3539	1522	1774	3539	1506
Grp Volume(v), veh/h	342	232	233	293	304	31	354	895	672	42	455	329
Grp Sat Flow(s),veh/h/ln	1774	1770	1756	1774	1770	1553	1774	1770	1522	1774	1770	1506
Q Serve(g_s), s	16.2	10.6	10.8	13.7	6.8	1.5	16.7	17.6	28.6	2.0	9.9	18.3
Cycle Q Clear(g_c), s	16.2	10.6	10.8	13.7	6.8	1.5	16.7	17.6	28.6	2.0	9.9	18.3
Prop In Lane	1.00		0.31	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	364	313	310	328	553	243	377	1381	887	66	760	323
V/C Ratio(X)	0.94	0.74	0.75	0.89	0.55	0.13	0.94	0.65	0.76	0.64	0.60	1.02
Avail Cap(c_a), veh/h	364	405	402	335	752	330	377	1381	887	104	760	323
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.3	33.2	33.3	33.9	33.2	31.0	33.0	21.2	13.8	40.5	30.1	33.5
Incr Delay (d2), s/veh	31.8	5.2	5.8	24.4	0.9	0.2	31.2	1.1	3.8	10.0	1.3	54.5
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	0.1
%ile BackOfQ(50%),veh/ln	11.1	5.6	5.7	9.0	3.4	0.6	11.4	8.8	12.7	1.2	4.9	12.5
LnGrp Delay(d),s/veh	65.1	38.4	39.1	58.3	34.0	31.2	64.3	22.3	17.6	50.4	31.4	88.0
LnGrp LOS	E	D	D	E	C	C	E	C	B	D	C	F
Approach Vol, veh/h		807			628			1921			826	
Approach Delay, s/veh		49.9			45.2			28.4			55.0	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	37.8	20.3	19.6	22.6	22.8	22.0	17.8
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	31.4	16.1	19.5	18.1	18.3	17.5	18.1
Max Q Clear Time (g_c+I1), s	4.0	30.6	15.7	12.8	18.7	20.3	18.2	8.8
Green Ext Time (p_c), s	0.0	0.6	0.0	1.5	0.0	0.0	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	40.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	26	45	116	26	257	60	1652	115	250	1148	54
Future Volume (veh/h)	39	26	45	116	26	257	60	1652	115	250	1148	54
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
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
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1863	1863	1863	1863	1810	1810	1900
Adj Flow Rate, veh/h	42	28	48	125	28	276	65	1776	124	269	1234	58
Adj No. of Lanes	0	1	1	0	1	1	1	2	1	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	5	5	5
Cap, veh/h	64	28	282	73	4	546	84	1845	815	288	2143	101
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.05	0.52	0.52	0.17	0.64	0.64
Sat Flow, veh/h	0	155	1581	0	21	1581	1774	3539	1564	1723	3342	157
Grp Volume(v), veh/h	70	0	48	153	0	276	65	1776	124	269	634	658
Grp Sat Flow(s),veh/h/ln	155	0	1581	21	0	1581	1774	1770	1564	1723	1719	1780
Q Serve(g_s), s	0.0	0.0	2.3	0.0	0.0	12.4	3.3	43.3	3.7	13.8	18.8	18.9
Cycle Q Clear(g_c), s	16.0	0.0	2.3	16.0	0.0	12.4	3.3	43.3	3.7	13.8	18.8	18.9
Prop In Lane	0.60		1.00	0.82		1.00	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	92	0	282	77	0	546	84	1845	815	288	1102	1141
V/C Ratio(X)	0.76	0.00	0.17	2.00	0.00	0.51	0.78	0.96	0.15	0.93	0.58	0.58
Avail Cap(c_a), veh/h	92	0	282	77	0	546	158	1852	818	288	1102	1141
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	0.0	31.3	44.1	0.0	23.3	42.3	20.7	11.2	36.9	9.2	9.2
Incr Delay (d2), s/veh	30.8	0.0	0.3	492.8	0.0	0.8	14.2	13.2	0.1	36.1	0.7	0.7
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	2.5	0.0	1.0	12.3	0.0	5.5	1.9	24.3	1.6	9.5	9.0	9.4
LnGrp Delay(d),s/veh	69.7	0.0	31.6	537.0	0.0	24.1	56.5	33.8	11.3	73.1	9.9	9.9
LnGrp LOS	E		C	F		C	E	C	B	E	A	A
Approach Vol, veh/h		118			429			1965			1561	
Approach Delay, s/veh		54.2			207.0			33.1			20.8	
Approach LOS		D			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	19.0	50.8		20.0	8.2	61.6		20.0
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	15.0	47.0		16.0	8.0	54.0		16.0
Max Q Clear Time (g_c+I1), s	15.8	45.3		18.0	5.3	20.9		18.0
Green Ext Time (p_c), s	0.0	1.5		0.0	0.0	11.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	47.3
HCM 2010 LOS	D

Intersection						
Int Delay, s/veh	3.8					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	99	15	26	1603	1248	58
Future Vol, veh/h	99	15	26	1603	1248	58
Conflicting Peds, #/hr	4	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	3	3	4	4
Mvmt Flow	106	16	28	1724	1342	62

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2297	704	1406	0	-	0
Stage 1	1375	-	-	-	-	-
Stage 2	922	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.16	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.23	-	-	-
Pot Cap-1 Maneuver	~ 33	379	476	-	-	-
Stage 1	200	-	-	-	-	-
Stage 2	348	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 31	378	475	-	-	-
Mov Cap-2 Maneuver	124	-	-	-	-	-
Stage 1	188	-	-	-	-	-
Stage 2	347	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	99.9	0.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	475	-	124	378	-	-
HCM Lane V/C Ratio	0.059	-	0.858	0.043	-	-
HCM Control Delay (s)	13.1	-	112.8	14.9	-	-
HCM Lane LOS	B	-	F	B	-	-
HCM 95th %tile Q(veh)	0.2	-	5.3	0.1	-	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	337	479	210	190	245	218	282	767	298	277	661	326
Future Volume (veh/h)	337	479	210	190	245	218	282	767	298	277	661	326
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
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
Adj Sat Flow, veh/h/ln	1827	1827	1827	1776	1776	1776	1845	1845	1845	1810	1810	1810
Adj Flow Rate, veh/h	379	538	236	213	275	245	317	862	335	311	743	366
Adj No. of Lanes	2	2	1	2	2	1	1	2	1	1	2	1
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
Percent Heavy Veh, %	4	4	4	7	7	7	3	3	3	5	5	5
Cap, veh/h	443	806	359	285	634	284	350	968	433	343	950	424
Arrive On Green	0.13	0.23	0.23	0.09	0.19	0.19	0.20	0.28	0.28	0.20	0.28	0.28
Sat Flow, veh/h	3375	3471	1547	3281	3374	1509	1757	3505	1568	1723	3438	1536
Grp Volume(v), veh/h	379	538	236	213	275	245	317	862	335	311	743	366
Grp Sat Flow(s),veh/h/ln	1688	1736	1547	1640	1687	1509	1757	1752	1568	1723	1719	1536
Q Serve(g_s), s	9.6	12.3	12.1	5.6	6.3	13.8	15.4	20.7	17.2	15.5	17.5	19.8
Cycle Q Clear(g_c), s	9.6	12.3	12.1	5.6	6.3	13.8	15.4	20.7	17.2	15.5	17.5	19.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	443	806	359	285	634	284	350	968	433	343	950	424
V/C Ratio(X)	0.86	0.67	0.66	0.75	0.43	0.86	0.91	0.89	0.77	0.91	0.78	0.86
Avail Cap(c_a), veh/h	443	840	374	311	693	310	351	1000	447	344	981	438
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.2	30.6	30.5	39.1	31.5	34.5	34.3	30.4	29.2	34.3	29.3	30.1
Incr Delay (d2), s/veh	15.1	1.9	3.9	8.8	0.5	20.3	26.1	9.9	8.0	26.4	4.1	15.7
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	5.4	6.1	5.5	2.9	3.0	7.3	10.0	11.3	8.3	9.9	8.8	10.2
LnGrp Delay(d),s/veh	52.3	32.5	34.4	47.9	31.9	54.8	60.3	40.3	37.2	60.7	33.3	45.8
LnGrp LOS	D	C	C	D	C	D	E	D	D	E	C	D
Approach Vol, veh/h		1153			733			1514			1420	
Approach Delay, s/veh		39.4			44.2			43.8			42.5	
Approach LOS		D			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.9	28.7	12.1	24.9	21.9	28.7	16.0	21.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	17.5	25.0	8.3	21.2	17.5	25.0	11.5	18.0
Max Q Clear Time (g_c+I1), s	17.5	22.7	7.6	14.3	17.4	21.8	11.6	15.8
Green Ext Time (p_c), s	0.0	1.5	0.1	2.5	0.0	1.9	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	42.4
HCM 2010 LOS	D

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	111	120	30	2	97	2	24	2	2	2	2	95
Future Vol, veh/h	111	120	30	2	97	2	24	2	2	2	2	95
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	121	130	33	2	105	2	26	2	2	2	2	103
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	8.3	8.4	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	86%	43%	2%	2%
Vol Thru, %	7%	46%	96%	2%
Vol Right, %	7%	11%	2%	96%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	261	101	99
LT Vol	24	111	2	2
Through Vol	2	120	97	2
RT Vol	2	30	2	95
Lane Flow Rate	30	284	110	108
Geometry Grp	1	1	1	1
Degree of Util (X)	0.043	0.346	0.139	0.128
Departure Headway (Hd)	5.087	4.386	4.546	4.294
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	703	820	789	835
Service Time	3.121	2.408	2.573	2.322
HCM Lane V/C Ratio	0.043	0.346	0.139	0.129
HCM Control Delay	8.4	9.7	8.3	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	1.6	0.5	0.4

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	20	4	30	20	79	4	32	20	110	41	20
Future Vol, veh/h	22	20	4	30	20	79	4	32	20	110	41	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	22	4	33	22	86	4	35	22	120	45	22
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	8.1	7.7	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	48%	23%	64%
Vol Thru, %	57%	43%	16%	24%
Vol Right, %	36%	9%	61%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	56	46	129	171
LT Vol	4	22	30	110
Through Vol	32	20	20	41
RT Vol	20	4	79	20
Lane Flow Rate	61	50	140	186
Geometry Grp	1	1	1	1
Degree of Util (X)	0.074	0.065	0.165	0.232
Departure Headway (Hd)	4.373	4.704	4.244	4.488
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	820	762	847	801
Service Time	2.395	2.728	2.263	2.506
HCM Lane V/C Ratio	0.074	0.066	0.165	0.232
HCM Control Delay	7.7	8.1	8.1	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.6	0.9

Intersection	
Intersection Delay, s/veh	12.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	150	196	45	3	198	3	50	3	3	3	3	151
Future Vol, veh/h	150	196	45	3	198	3	50	3	3	3	3	151
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	163	213	49	3	215	3	54	3	3	3	3	164
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	14.5	10.5	9.7	9.7
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	89%	38%	1%	2%
Vol Thru, %	5%	50%	97%	2%
Vol Right, %	5%	12%	1%	96%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	56	391	204	157
LT Vol	50	150	3	3
Through Vol	3	196	198	3
RT Vol	3	45	3	151
Lane Flow Rate	61	425	222	171
Geometry Grp	1	1	1	1
Degree of Util (X)	0.102	0.58	0.316	0.241
Departure Headway (Hd)	6.008	4.915	5.137	5.087
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	596	740	701	705
Service Time	4.051	2.915	3.167	3.124
HCM Lane V/C Ratio	0.102	0.574	0.317	0.243
HCM Control Delay	9.7	14.5	10.5	9.7
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.3	3.8	1.4	0.9

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	40	30	6	45	30	143	6	61	35	150	51	45
Future Vol, veh/h	40	30	6	45	30	143	6	61	35	150	51	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	33	7	49	33	155	7	66	38	163	55	49
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9	9.7	8.8	10.6
HCM LOS	A	A	A	B

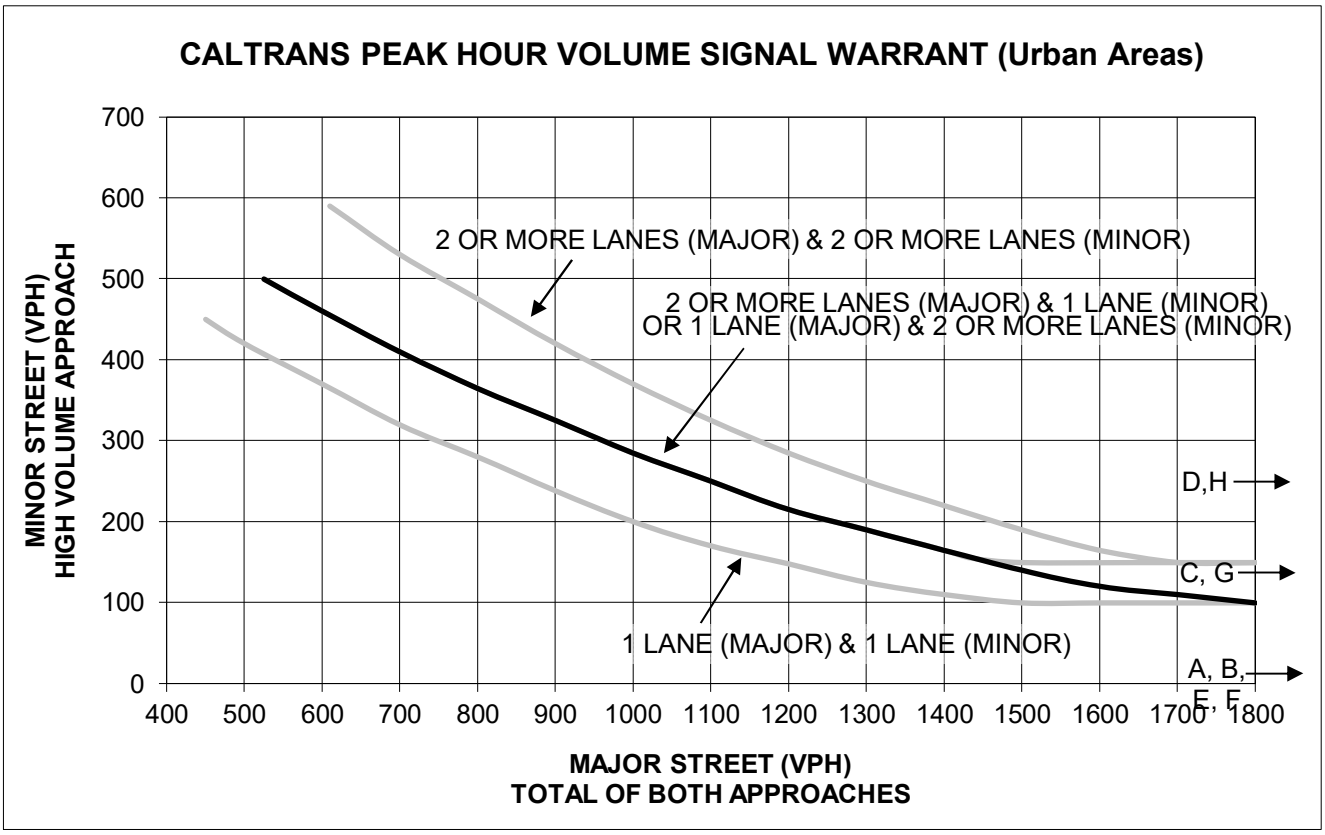
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	53%	21%	61%
Vol Thru, %	60%	39%	14%	21%
Vol Right, %	34%	8%	66%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	102	76	218	246
LT Vol	6	40	45	150
Through Vol	61	30	30	51
RT Vol	35	6	143	45
Lane Flow Rate	111	83	237	267
Geometry Grp	1	1	1	1
Degree of Util (X)	0.149	0.12	0.303	0.36
Departure Headway (Hd)	4.842	5.209	4.607	4.841
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	733	682	775	738
Service Time	2.921	3.289	2.672	2.907
HCM Lane V/C Ratio	0.151	0.122	0.306	0.362
HCM Control Delay	8.8	9	9.7	10.6
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.5	0.4	1.3	1.6

Appendix I

Warrant

Worksheets

Intersection #4
Spring Street / John Street (SR 68)



Scenario	John St (SR 68) East/West	Spring St North/South	Warrant Met?
A. Existing AM	2193	9	No
B. Existing PM	2318	11	No
C. Ex+Pro AM	2519	133	No*
D. Ex+Pro PM	2802	244	No*
E. CumNoPro AM	2430	9	No
F. CumNoPro PM	2709	11	No
G. Cum+Pro AM	2756	133	No*
H. Cum+Pro PM	3193	244	No*

* Warrant not met, as approach volumes are all right turns, the movement that would have the least benefit from signalization.

Notes:

1. 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 approaching with one lane.

2. Bold line applies to intersection geometry.

Warrant 3 (Part B) - Peak Hour Delay
#4 - Spring Street / John Street (SR 68)

Number of Approaches to Intersection: 4 approaches **Minimum Entering Vehicles: 800 vehicles**
Number of Approach Lanes: NB Spring: 1 lanes
SB Spring: 1 lanes

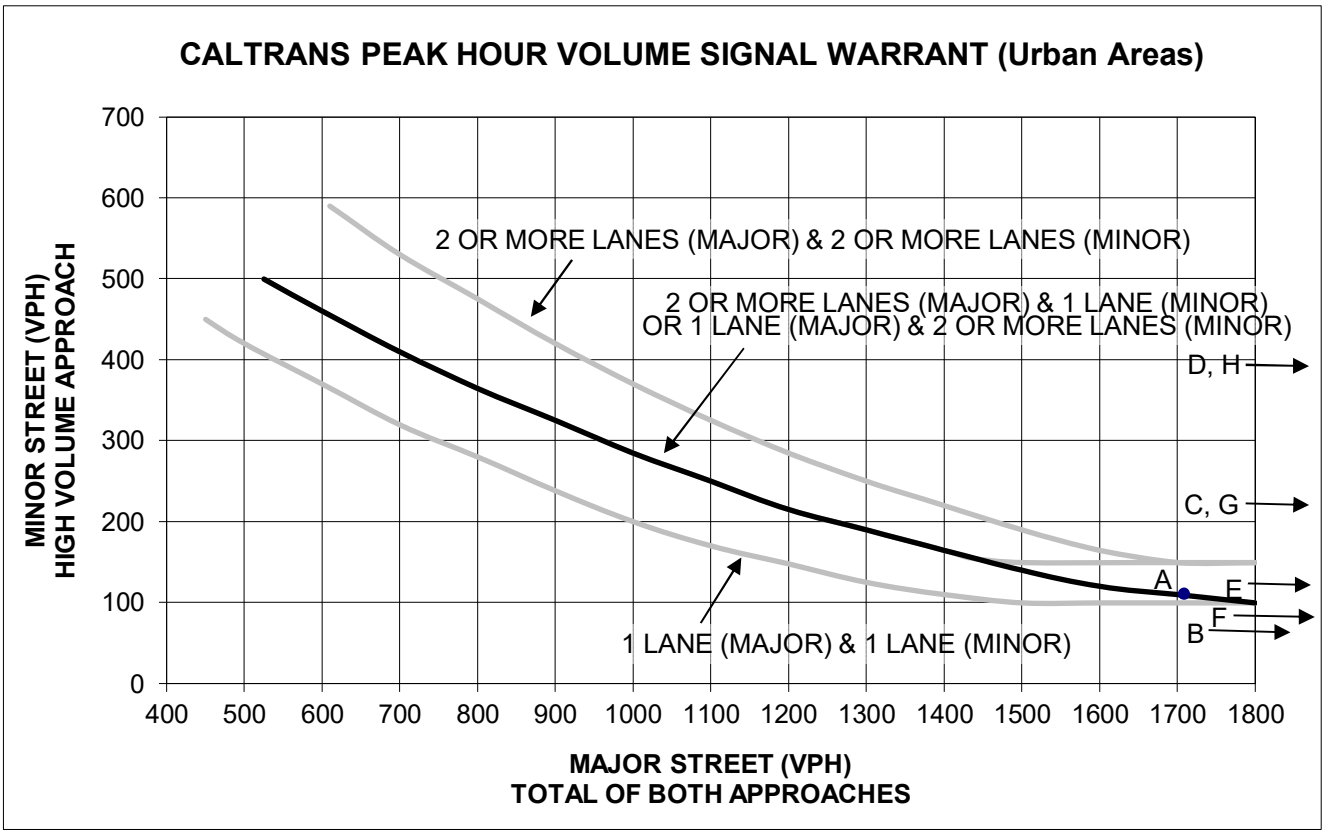
Total Entering Volumes:

Existing AM:	2,209 vehicles		
Existing PM:	2,340 vehicles		
Exist+Proj AM:	2,659 vehicles	CumNoPro AM:	2,446 vehicles
Exist+Proj PM:	3,057 vehicles	CumNoPro PM:	2,731 vehicles
		Cum+Proj AM:	2,896 vehicles
		Cum+Proj PM:	3,448 vehicles

Street	Direction	Scenario	Peak Hour	No. of Stopped Vehicles	Average Vehicle Delay (sec)	Total Vehicle Delay (sec)	Total Delay (hours)	Min. Approach Delay? 4 Veh-Hrs (One-Lane)	Min. Approach Delay? 5 Veh-Hrs (Two-Lane)	Min. Approach Vols? 100 Veh (One-Lane)	Min. Approach Vols? 150 Veh (Two-Lane)	At least 800 Veh? (Intersection)	Warrant Met?
Spring	NB	Existing	AM	9	34.3	309	0.09	NO	N/A	NO	N/A	YES	NO
Spring	SB	Existing	AM	7	16.6	116	0.03	NO	N/A	NO	N/A	YES	NO
Spring	NB	Existing	PM	11	76.6	843	0.23	NO	N/A	NO	N/A	YES	NO
Spring	SB	Existing	PM	11	54.1	595	0.17	NO	N/A	NO	N/A	YES	NO
Spring	NB	Exist+Proj	AM	133	19.2	2,554	0.71	NO	N/A	YES	N/A	YES	NO
Spring	SB	Exist+Proj	AM	7	18.5	130	0.04	NO	N/A	NO	N/A	YES	NO
Spring	NB	Exist+Proj	PM	244	129.4	31,574	8.77	YES	N/A	YES	N/A	YES	YES
Spring	SB	Exist+Proj	PM	11	3,000.0	33,000	9.17	YES	N/A	NO	N/A	YES	NO
Spring	NB	CumNoPro	AM	9	43.7	393	0.11	NO	N/A	NO	N/A	YES	NO
Spring	SB	CumNoPro	AM	7	17.8	125	0.03	NO	N/A	NO	N/A	YES	NO
Spring	NB	CumNoPro	PM	11	141.6	1,558	0.43	NO	N/A	NO	N/A	YES	NO
Spring	SB	CumNoPro	PM	11	99.9	1,099	0.31	NO	N/A	NO	N/A	YES	NO
Spring	NB	Cum+Proj	AM	133	16.1	2,141	0.59	NO	N/A	YES	N/A	YES	NO
Spring	SB	Cum+Proj	AM	7	19.9	139	0.04	NO	N/A	NO	N/A	YES	NO
Spring	NB	Cum+Proj	PM	244	3,000.0	732,000	203.33	YES	N/A	YES	N/A	YES	YES
Spring	SB	Cum+Proj	PM	11	3,000.0	33,000	9.17	YES	N/A	NO	N/A	YES	NO

Notes:
1. Warrant based on level of service calculations.
2. NB, SB, EB, WB = Northbound, Southbound, Eastbound, Westbound.
3. N/A = Not Applicable - this evaluation does not apply to that approach.
4. Delays of over 3,000 seconds reduced to exactly 3,000 seconds for this warrant evaluation.

Intersection #6
Abbott Street / Maple Street



Scenario	Abbott St	Maple St	Warrant
	North/South	East/West	Met?
A. Existing AM	1708	111	Yes
B. Existing PM	1871	63	No
C. Ex+Pro AM	1952	216	Yes
D. Ex+Pro PM	2235	399	Yes
E. CumNoPro AM	2471	127	Yes
F. CumNoPro PM	2915	84	No
G. Cum+Pro AM	2715	216	Yes
H. Cum+Pro PM	3279	399	Yes

Notes:

1. 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 approaching with one lane.

2. Bold line applies to intersection geometry.

Warrant 3 (Part B) - Peak Hour Delay
#6 - Abbott Street / Maple Street

Number of Approaches to Intersection: 4 approaches **Minimum Entering Vehicles: 800 vehicles**

Number of Approach Lanes: EB Maple: 1 lanes
WB Private Dwy: 1 lanes

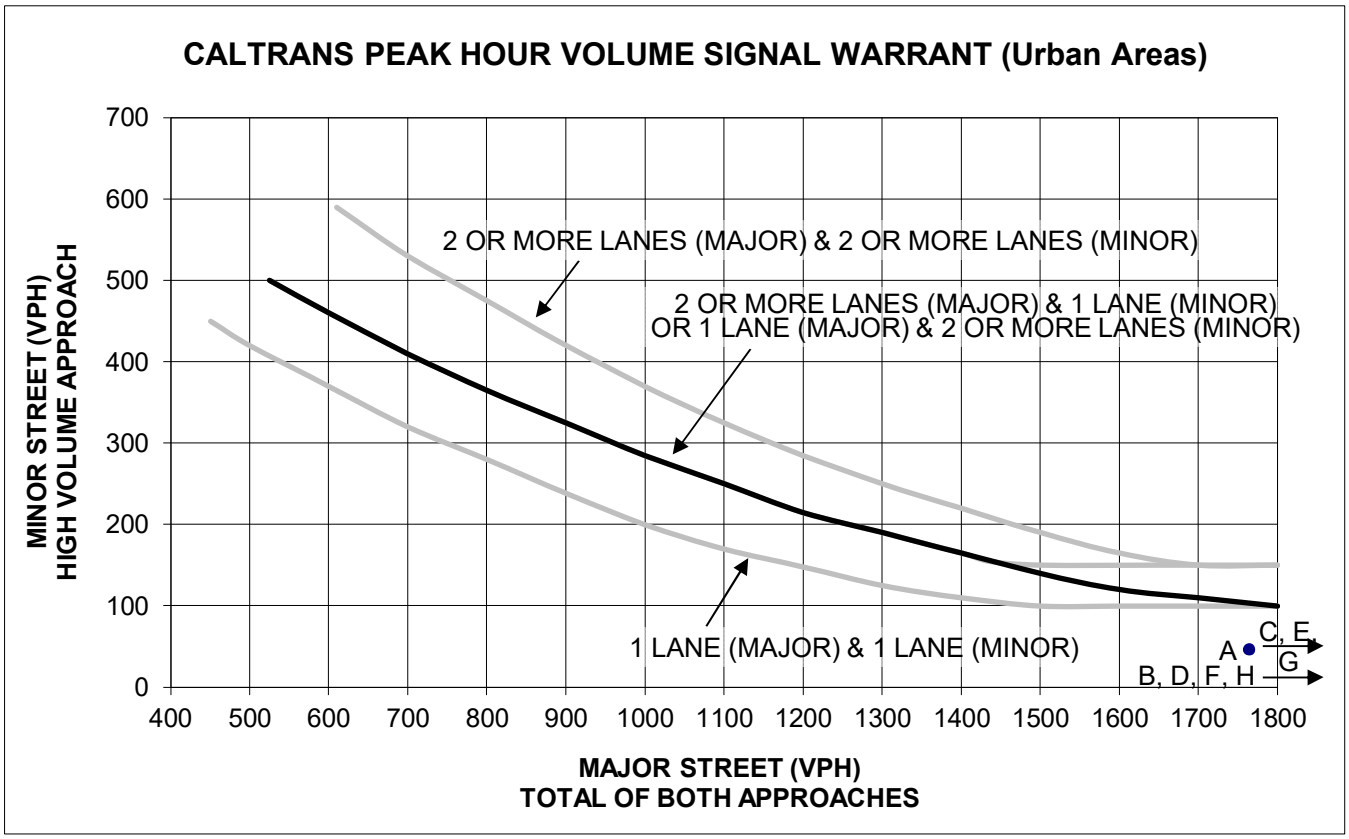
Total Entering Volumes:

Existing AM:	1,819 vehicles		
Existing PM:	1,934 vehicles		
Exist+Proj AM:	2,296 vehicles	CumNoPro AM:	2,598 vehicles
Exist+Proj PM:	2,723 vehicles	CumNoPro PM:	2,999 vehicles
		Cum+Proj AM:	3,075 vehicles
		Cum+Proj PM:	3,788 vehicles

Street	Direction	Scenario	Peak Hour	No. of Stopped Vehicles	Average Vehicle Delay (sec)	Total Vehicle Delay (sec)	Total Delay (hours)	Min. Approach Delay? 4 Veh-Hrs (One-Lane)	Min. Approach Delay? 5 Veh-Hrs (Two-Lane)	Min. Approach Vols? 100 Veh (One-Lane)	Min. Approach Vols? 150 Veh (Two-Lane)	At least 800 Veh? (Intersection)	Warrant Met?
Maple	EB	Existing	AM	111	85.3	9,468	2.63	NO	N/A	YES	N/A	YES	NO
Private Dwy	WB	Existing	AM	0	0.0	0	0.00	NO	N/A	NO	N/A	YES	NO
Maple	EB	Existing	PM	63	40.3	2,539	0.71	NO	N/A	NO	N/A	YES	NO
Private Dwy	WB	Existing	PM	0	0.0	0	0.00	NO	N/A	NO	N/A	YES	NO
Maple	EB	Exist+Proj	AM	128	3,000.0	384,000	106.67	YES	N/A	YES	N/A	YES	YES
Maple	WB	Exist+Proj	AM	216	3,000.0	648,000	180.00	YES	N/A	YES	N/A	YES	YES
Maple	EB	Exist+Proj	PM	89	11.2	997	0.28	NO	N/A	NO	N/A	YES	NO
Maple	WB	Exist+Proj	PM	399	3,000.0	1,197,000	332.50	YES	N/A	YES	N/A	YES	YES
Maple	EB	CumNoPro	AM	127	1,060.8	134,722	37.42	YES	N/A	YES	N/A	YES	YES
Private Dwy	WB	CumNoPro	AM	0	0.0	0	0.00	NO	N/A	NO	N/A	YES	NO
Maple	EB	CumNoPro	PM	84	3,000.0	252,000	70.00	YES	N/A	NO	N/A	YES	NO
Private Dwy	WB	CumNoPro	PM	0	0.0	0	0.00	NO	N/A	NO	N/A	YES	NO
Maple	EB	Cum+Proj	AM	144	3,000.0	432,000	120.00	YES	N/A	YES	N/A	YES	YES
Maple	WB	Cum+Proj	AM	216	3,000.0	648,000	180.00	YES	N/A	YES	N/A	YES	YES
Maple	EB	Cum+Proj	PM	110	3,000.0	330,000	91.67	YES	N/A	YES	N/A	YES	YES
Maple	WB	Cum+Proj	PM	399	3,000.0	1,197,000	332.50	YES	N/A	YES	N/A	YES	YES

Notes:
1. Warrant based on level of service calculations.
2. NB, SB, EB, WB = Northbound, Southbound, Eastbound, Westbound.
3. N/A = Not Applicable - this evaluation does not apply to that approach.
4. Delays of over 3,000 seconds reduced to exactly 3,000 seconds for this warrant evaluation.

Intersection #7
Abbott Street / Spicer Street



Scenario	Abbott St	Spicer St	Warrant
	North/South	East/West	Met?
A. Existing AM	1764	47	No
B. Existing PM	1802	3	No
C. Ex+Pro AM	1904	47	No
D. Ex+Pro PM	2033	3	No
E. CumNoPro AM	2535	55	No
F. CumNoPro PM	2802	10	No
G. Cum+Pro AM	2675	55	No
H. Cum+Pro PM	3033	10	No

Notes:

1. 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 approaching with one lane.

2. Bold line applies to intersection geometry.

3. High northbound and southbound right turn volumes are removed from warrant evaluation.

Warrant 3 (Part B) - Peak Hour Delay
#7 - Abbott Street / Spicer Street

Number of Approaches to Intersection: 3 approaches **Minimum Entering Vehicles: 650 vehicles**
Number of Approach Lanes: WB Spicer: 1 lanes

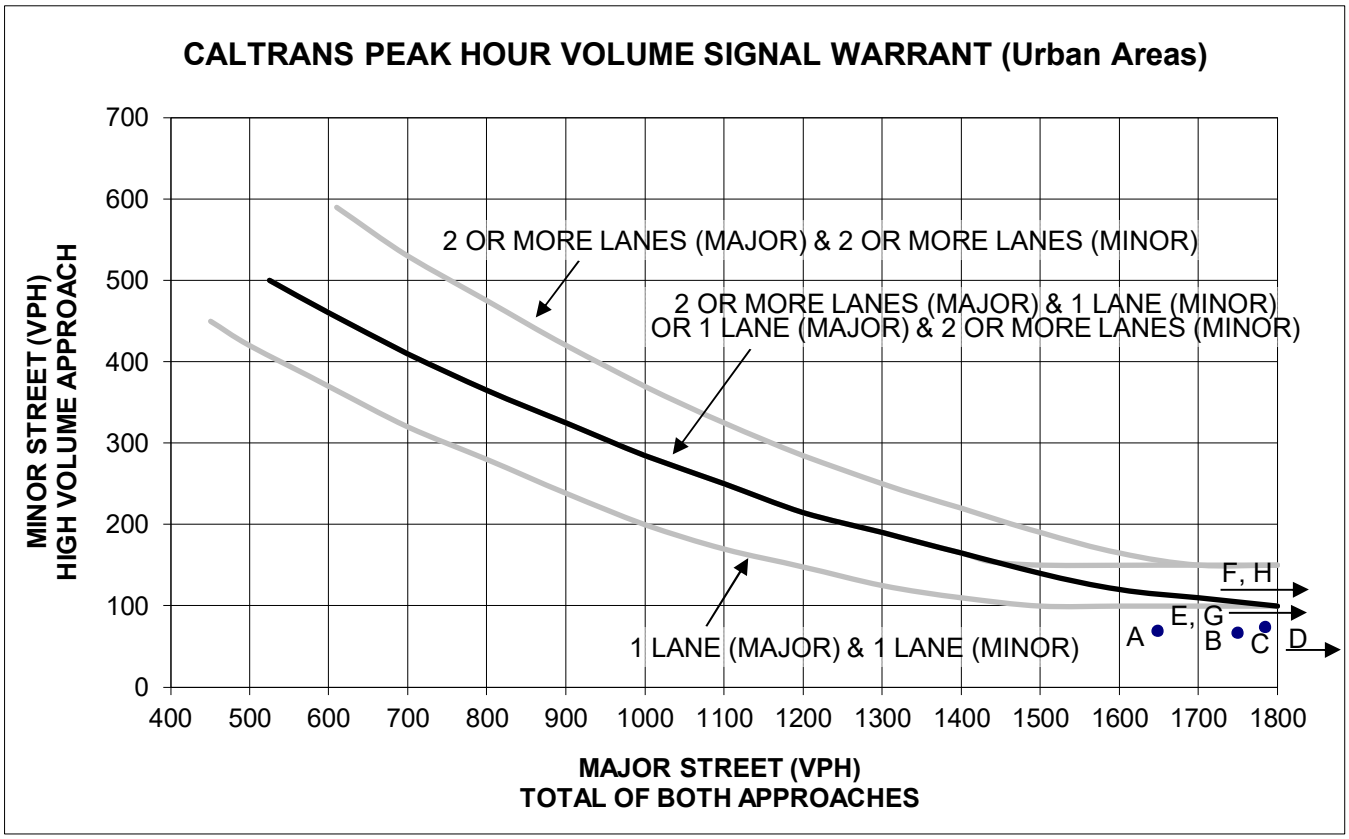
Total Entering Volumes:

Existing AM:	1,811 vehicles		
Existing PM:	1,805 vehicles		
Exist+Proj AM:	1,951 vehicles	CumNoPro AM:	2,590 vehicles
Exist+Proj PM:	2,036 vehicles	CumNoPro PM:	2,812 vehicles
		Cum+Proj AM:	2,730 vehicles
		Cum+Proj PM:	3,043 vehicles

Street	Direction	Scenario	Peak Hour	No. of Stopped Vehicles	Average Vehicle Delay (sec)	Total Vehicle Delay (sec)	Total Delay (hours)	Min. Approach Delay? 4 Veh-Hrs (One-Lane)	Min. Approach Delay? 5 Veh-Hrs (Two-Lane)	Min. Approach Vols? 100 Veh (One-Lane)	Min. Approach Vols? 150 Veh (Two-Lane)	At least 650 Veh? (Intersection)	Warrant Met?
Spicer	WB	Existing	AM	47	18.1	851	0.24	NO	N/A	NO	N/A	YES	NO
Spicer	WB	Existing	PM	3	20.2	61	0.02	NO	N/A	NO	N/A	YES	NO
Spicer	WB	Exist+Proj	AM	47	43.2	2,030	0.56	NO	N/A	NO	N/A	YES	NO
Spicer	WB	Exist+Proj	PM	3	23.4	70	0.02	NO	N/A	NO	N/A	YES	NO
Spicer	WB	CumNoPro	AM	55	12.3	677	0.19	NO	N/A	NO	N/A	YES	NO
Spicer	WB	CumNoPro	PM	10	187.4	1,874	0.52	NO	N/A	NO	N/A	YES	NO
Spicer	WB	Cum+Proj	AM	55	12.8	704	0.20	NO	N/A	NO	N/A	YES	NO
Spicer	WB	Cum+Proj	PM	10	413.7	4,137	1.15	NO	N/A	NO	N/A	YES	NO

Notes:
1. Warrant based on level of service calculations.
2. NB, SB, EB, WB = Northbound, Southbound, Eastbound, Westbound.
3. N/A = Not Applicable - this evaluation does not apply to that approach.
4. High northbound and southbound right turn volumes are removed from warrant evaluation.

Intersection #8
Abbott Street / Alameda Avenue



Scenario	Abbott St	Alameda Ave	Warrant
	North/South	East/West	Met?
A. Existing AM	1648	70	No
B. Existing PM	1749	67	No
C. Ex+Pro AM	1784	74	No
D. Ex+Pro PM	1974	73	No
E. CumNoPro AM	2385	89	No
F. CumNoPro PM	2710	108	Yes
G. Cum+Pro AM	2521	93	No
H. Cum+Pro PM	2935	114	Yes

Notes:

1. 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 approaching with one lane.

2. Bold line applies to intersection geometry.

Warrant 3 (Part B) - Peak Hour Delay
#8 - Abbott Street / Alameda Avenue

Number of Approaches to Intersection: 3 approaches **Minimum Entering Vehicles: 650 vehicles**
Number of Approach Lanes: EB Alameda: 1 lanes

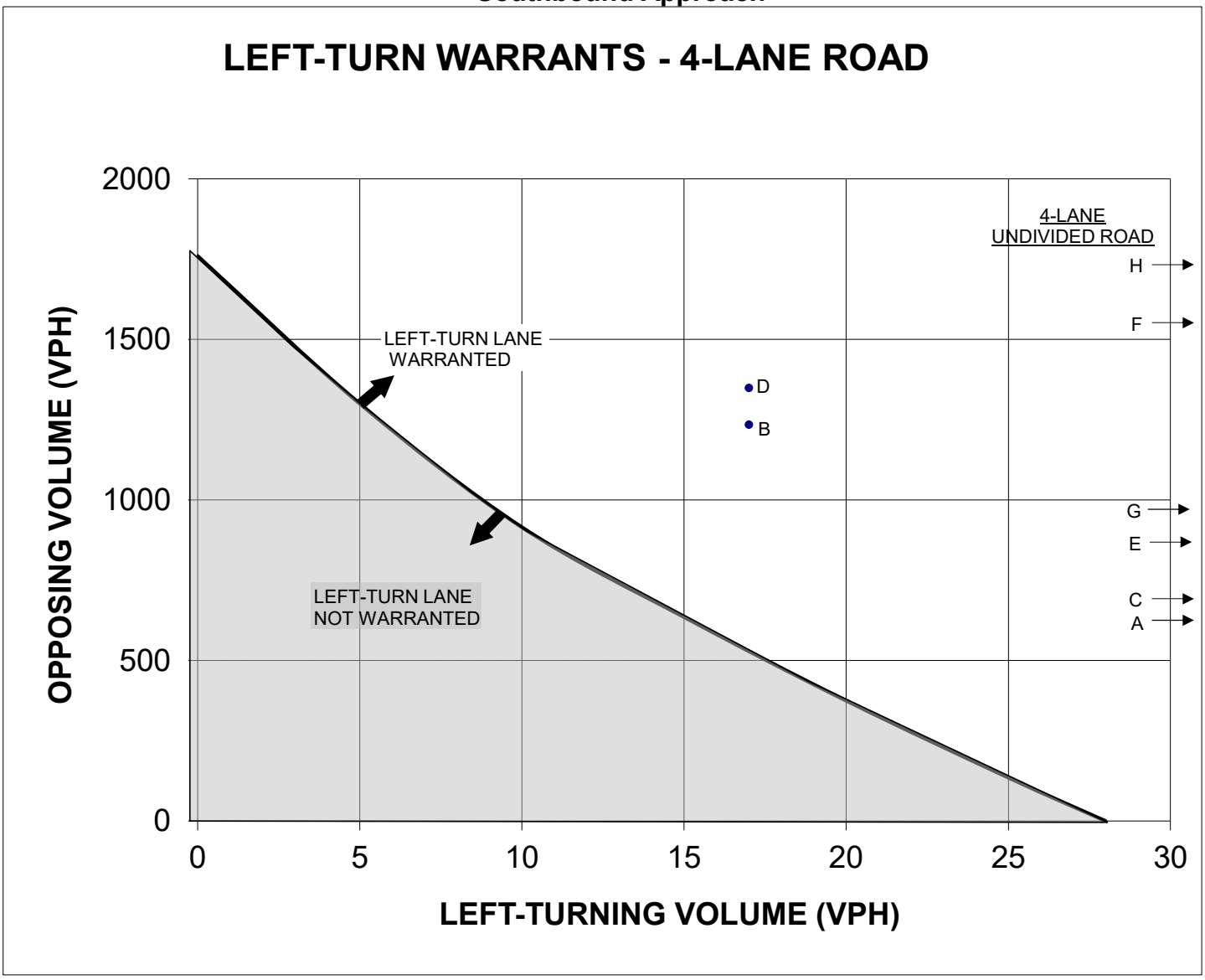
Total Entering Volumes:

Existing AM:	1,718 vehicles		
Existing PM:	1,816 vehicles		
Exist+Proj AM:	1,858 vehicles	CumNoPro AM:	2,474 vehicles
Exist+Proj PM:	2,047 vehicles	CumNoPro PM:	2,818 vehicles
		Cum+Proj AM:	2,614 vehicles
		Cum+Proj PM:	3,049 vehicles

Street	Direction	Scenario	Peak Hour	No. of Stopped Vehicles	Average Vehicle Delay (sec)	Total Vehicle Delay (sec)	Total Delay (hours)	Min. Approach Delay? 4 Veh-Hrs (One-Lane)	Min. Approach Delay? 5 Veh-Hrs (Two-Lane)	Min. Approach Vols? 100 Veh (One-Lane)	Min. Approach Vols? 150 Veh (Two-Lane)	At least 650 Veh? (Intersection)	Warrant Met?
Alameda	EB	Existing	AM	70	37.5	2,625	0.73	NO	N/A	NO	N/A	YES	NO
Alameda	EB	Existing	PM	67	44.9	3,008	0.84	NO	N/A	NO	N/A	YES	NO
Alameda	EB	Exist+Proj	AM	74	50.5	3,737	1.04	NO	N/A	NO	N/A	YES	NO
Alameda	EB	Exist+Proj	PM	73	86.9	6,344	1.76	NO	N/A	NO	N/A	YES	NO
Alameda	EB	CumNoPro	AM	89	282.6	25,151	6.99	YES	N/A	NO	N/A	YES	NO
Alameda	EB	CumNoPro	PM	108	1,955.9	211,237	58.68	YES	N/A	YES	N/A	YES	YES
Alameda	EB	Cum+Proj	AM	93	434.6	40,418	11.23	YES	N/A	NO	N/A	YES	NO
Alameda	EB	Cum+Proj	PM	114	3,000.0	342,000	95.00	YES	N/A	YES	N/A	YES	YES

Notes:
1. Warrant based on level of service calculations.
2. NB, SB, EB, WB = Northbound, Southbound, Eastbound, Westbound.
3. N/A = Not Applicable - this evaluation does not apply to that approach.
4. Delays of over 3,000 seconds reduced to exactly 3,000 seconds for this warrant evaluation.

Intersection #7
Abbott Street / Spicer Street
Southbound Approach

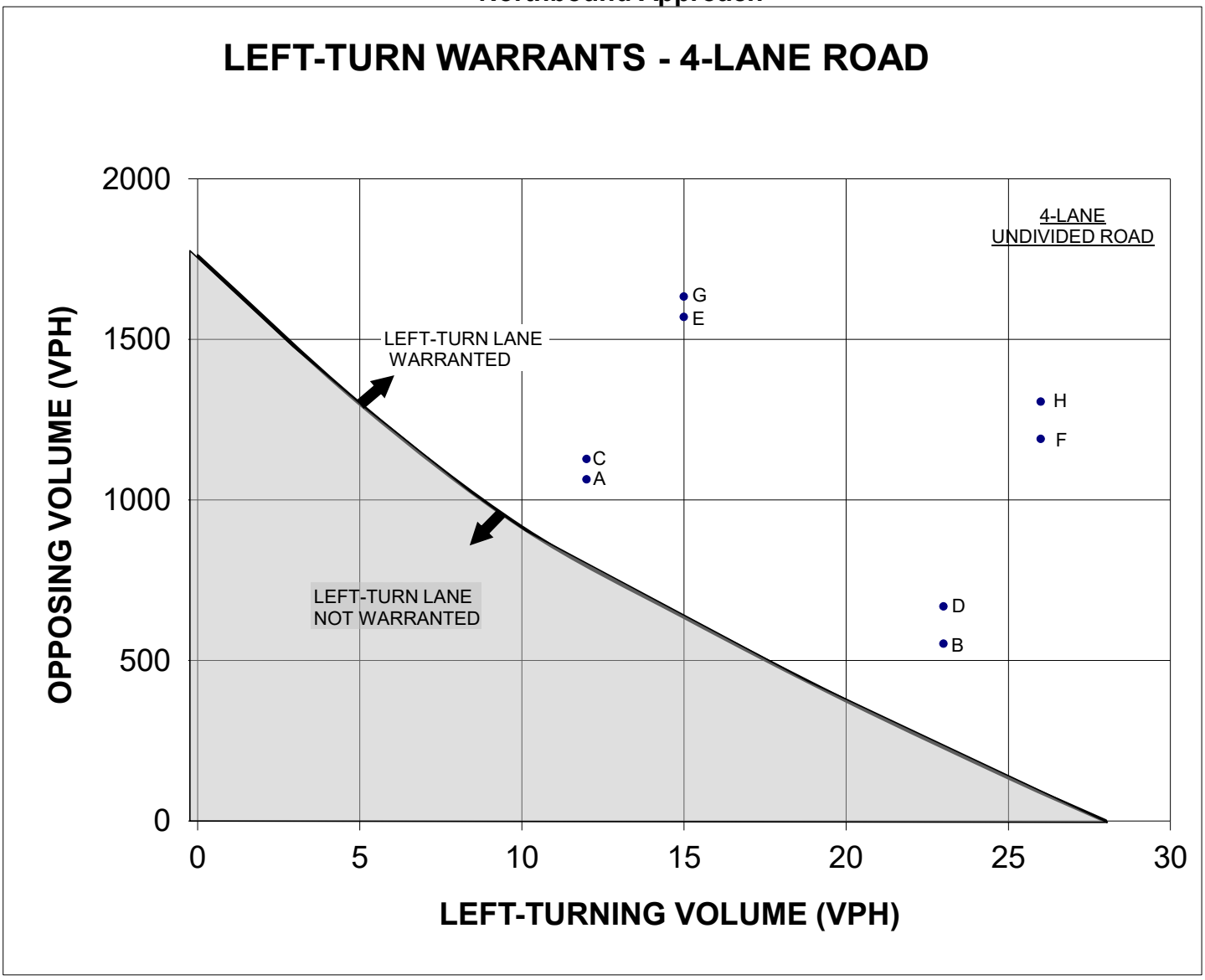


Scenario	Left-Turning	Opposing	Warrant Met?
A. Existing AM	110	601	Yes
B. Existing PM	17	1234	Yes
C. Ex+Pro AM	110	678	Yes
D. Ex+Pro PM	17	1349	Yes
E. CumNoPro AM	140	845	Yes
F. CumNoPro PM	35	1587	Yes
G. Cum+Pro AM	140	922	Yes
H. Cum+Pro PM	35	1702	Yes

Source: Transportation Research Board, "Intersection Channelization Guide", NCHRP Report 279, November, 1985

Note: When opposing volume < 400 VPH, a left-turn lane is not normally warranted unless the advancing volume in the same direction as the left-turning traffic exceeds 400 VPH.

Intersection #8
Abbott Street / Alameda Avenue
Northbound Approach



Scenario	Left-Turning	Opposing	Warrant Met?
A. Existing AM	12	1064	Yes
B. Existing PM	23	552	Yes
C. Ex+Pro AM	12	1127	Yes
D. Ex+Pro PM	23	668	Yes
E. CumNoPro AM	15	1570	Yes
F. CumNoPro PM	26	1190	Yes
G. Cum+Pro AM	15	1633	Yes
H. Cum+Pro PM	26	1306	Yes

Source: Transportation Research Board, "Intersection Channelization Guide", NCHRP Report 279, November, 1985

Note: When opposing volume < 400 VPH, a left-turn lane is not normally warranted unless the advancing volume in the same direction as the left-turning traffic exceeds 400 VPH.