COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

DATE: February 17, 2022

TO: Zoning Hearing Officer

FROM: Planning Staff

SUBJECT: Consideration of a Use Permit Amendment, pursuant to Section 6503 of the San Mateo County Zoning Regulations, and an addendum to a mitigated negative declaration, to increase the maximum number of students enrolled at the existing Synapse School facility from 260 to 310, located at 3375 Edison Way in the unincorporated area of North Fair Oaks. The Use Permit includes the request for an off-street parking exception to reduce the number of required on-site parking spaces from the previously approved 128 spaces to 60 spaces.

County File Number: PLN 2014-00295 (Synapse School)

PROPOSAL

The applicant is seeking an amendment to a Use Permit to increase the maximum student capacity from 260 to 310 students (with the increase comprised of 30 pre-school students and 20 students ranging from K-8) at the Synapse School facility located at 3375 Edison Way in the unincorporated area of North Fair Oaks. The Use Permit includes a request for an off-street parking exception to reduce the number of required on-site parking spaces from the previously approved 128 spaces to 60 spaces. The requested parking reduction is based on a traffic study conducted by the applicant's traffic consultant that evaluates the demand for parking on-site, identifies programs used to reduce the demand for parking, and improves on site circulation to avoid congestion. The school will remain kindergarten/pre-K through 8th grade (K-8). The "project site" is comprised of two parcels, Assessor's Parcel Numbers (APNs) 060-042-260 and 060-042-240, totaling approximately 2.6 acres combined.

As shown on the project plans the project includes minor interior changes to increase class sizes and the replacement and addition of windows to buildings 1 and 2.

This amendment converts the previously approved 'Non-conforming' Use Permit for the facility to a Use Permit. The facility's Non-conforming Use Permit was approved in 2017 based on the school's original establishment in 2010 as an "other compatible use" in the M-1/Edison/NFO Zoning District. The applicable Zoning District Regulations were updated in 2019, and now allow educational facilities with a Use Permit.

RECOMMENDATION

That the Zoning Hearing Officer adopt the Mitigated Negative Declaration addendum and approve the Use Permit Amendment, County File Number PLN 2014-00295, by making the required findings and adopting the conditions of approval in Attachment A.

BACKGROUND

Report Prepared By: Kanoa Kelley, Project Planner; kkelley@smcgov.org

Applicant: Synapse School

Owner: 3355 Edison Partners; Anthony and Johnny Zanette

Location: 3375, 3355, 3345, and 3425 Edison Way, North Fair Oaks
APNs: 060-042-260 (3375, 3355, and 3345 Edison Way) and 060-042-240 (3425 Edison Way)

Size: 1.98 acres and 0.64 acres, respectively

Existing Zoning: Mixed-Use Industrial/Edison/North Fair Oaks (M-1/Edison/NFO)

General Plan Designation: Industrial Mixed Use

Sphere-of-Influence: Redwood City

Existing Land Use: Synapse School – independent K-8 school

Water Supply: Continued water service to be provided by the California Water Service Company

Sewage Disposal: Continued sewer service to be provided by the Fair Oaks Sewer Maintenance District (being a function of the County Department of Public Works)

Flood Zone: Zone X (areas of minimal flood), pursuant to Federal Emergency Management Agency, Flood Insurance Rate Map, Community Panel 06081C0302E, effective October 16, 2012.

Environmental Evaluation: An Initial Study and Mitigated Negative Declaration (IS/MND) was adopted by the Planning Commission on August 9, 2017 for Synapse School (*Synapse School Expansion*). California Environmental Quality Act Guidelines Section 15314 exempts minor additions to existing schools where the addition does not increase original student capacity by more than 25 percent or ten classrooms, whichever is less. Existing student capacity is 260, and the proposed increase to 310 students constitutes a 19 percent increase; no new classrooms are proposed. In addition, staff prepared an addendum to the previously adopted Synapse School

Expansion project IS/MND in accordance with CEQA Guidelines Section 15164 (Attachment D). The addendum further demonstrates that subsequent environmental review is not required. The mitigation measures from the IS/MND, as slightly modified in the addendum, are included as recommended conditions of approval in Attachment A.

Setting: The project site is located within the densely developed urban community of North Fair Oaks. The project parcels are among a row of developed parcels zoned M--1/Edison/NFO (Mixed-Use Industrial/Edison/North Fair Oaks). Surrounding uses include the Southern Pacific Railroad Tracks to the north, with residential development beyond; the Riekes Center (for human enhancement) to the east, with office, research, and technology businesses beyond; a multi-tenant light industrial development to the west, with 5th Avenue and Sports House beyond; and single-family residences to the south, across Edison Way.

The school utilizes four buildings on the two parcels with on-site parking consisting of a main parking lot on APN 060-042-260 and two secondary parking lots on the east side of the buildings at 3375 Edison Way and 3425 Edison Way. There are a total of five existing ingress/egress driveways (two ingress only and three egress only) serving the main parking lot from Edison Way. Given the existing built conditions of the project site, there is minimal landscaping. However, trees exist along the perimeters of the project site.

Background: Synapse School is an existing private elementary and middle school serving kindergarten through 8th grades (K-8) located at 3375 Edison Way in North Fair Oaks. The existing school was established in 2010 under the County's determination that the school use was a compatible use in the applicable light industrial (M-1/Edison/NFO) Zoning District. The existing school operates in four buildings at 3345, 3355, 3375 and 3425 Edison Way. The school year runs from August to June and operates during the weekday hours of 8:15 a.m. - 8:45 a.m. to staggered end times between 3:15 p.m. - 3:45 p.m.

Chronology:

Date		Action
August 9, 2017	-	Planning Commission approval for Non-Conforming Use Permit for Synapse School Expansion, including expanding school operation into existing adjacent onsite buildings, increasing enrollment from 219 to 260 students, and reducing parking requirements from 144 spaces to 128 spaces, PLN 2014-00295.
November 21, 2019	-	Application for the amendment of approved Use Permit, PLN 2014-00295, received.

August 22, 2021 - Amendment application deemed complete.

January 27, 2022 - North Fair Oaks Community Council meeting

February 17, 2022 - Zoning Hearing Officer meeting.

DISCUSSION

A. KEY ISSUES

1. Compliance with the General Plan/North Fair Oaks Community Plan

Staff has reviewed the project for compliance with all of the applicable General Plan/North Fair Oaks Community Plan Policies, including the following:

a. Urban Land Uses Policies

General Plan Policies 8.12 (*General Plan Land Use Designations for Urban Areas*), 8.30 (*Infilling*), and 8.36 (*Uses*) seek to adopt the land use designations of the North Fair Oaks Community Plan, encourage infilling of urban areas where infrastructure and services are available, and allow uses in zoning districts that are consistent with the overall land use designation.

According to the North Fair Oaks (NFO) Community Plan, the project parcels are designated Industrial Mixed Use (medium to high density). The primary objective of the Industrial Mixed Use land use category is to preserve and promote job-generating uses while catalyzing reuse of underutilized industrial buildings for commercial activities, including retail and office uses, live/work lofts, and institutional uses such as schools/training and sports facilities.

Zoning for the project parcels is Mixed-Use Industrial/Edison/North Fair Oaks (M-1/Edison/NFO) which allows educational facilities with a use permit. The existing Synapse School facility was originally established in 2010 by Community Development Director determination of use compatibility with the M-1/Edison/NFO zoning district, which at the time did not specifically allow institutional or school uses. A Non-Conforming Use Permit was approved in 2017 by the County to expand the school into three existing adjacent buildings on the project site, increase enrollment, and reduce onsite parking. In 2019, Ordinance 4815 was adopted by the Board of Supervisors for a zoning text amendment to the M-1/Edison/NFO zoning district to allow educational facilities with a Use Permit. The proposed project supports continued operation of the school at the project site which is

consistent with the overall Industrial Mixed-Use land use designation and M-1/Edison/NFO zoning designation.

General Plan Policy 8.40 (*Parking Requirements*) seeks to ensure minimum on-site parking requirements, and standards are met in order to, among other things, accommodate the parking needs of the development, provide convenient and safe access, and prevent congestion of public streets.

The project includes a request for a reduction in off-street parking spaces as part of the use permit amendment. Based on the application of off-street parking standards at the time of the last approved Use Permit, the number of required off-street parking spaces is 144. The previous Use Permit approval allowed a reduction from 144 spaces (required) to 128 spaces. Based on an updated traffic study conducted by Hexagon Transportation Consultants, Inc, which analyzed parking demand, optimal site circulation, and fire access requirements, the applicant is seeking a reduction in parking from 128 spaces (last approved) to 60 off-street parking spaces.

After implementation of the proposed project, the school will remain K-8, thus not generating any student demand for parking spaces. The school operates 10 shuttles serving 87 students in the morning, and 5 shuttles serving 36 students in the afternoon. Additionally, approximately 10 staff members participate in the school shuttle program, thus, reducing parking demand. The school will continue to expand the existing shuttle program to capture more students. Of the proposed enrollment increase to 310 students, 30 students would be pre-school students. While pre-school students would not take shuttles, the school expects that 1/3 of pre-school students would carpool with siblings.
Given that the school serves young children, K-8, parking demand temporarily increases during morning drop-off and afternoon pick-up. The school proposes to stagger the pre-school start time to 9:15 a.m. to further reduce morning parking demand and AM peak hour trips. Otherwise, the school is not expected to generate much parking demand beyond staff and occasional visitors (such as parents). Hexagon reports that on peak hour traffic count days, the maximum number of vehicles parked on-site ranged from 37 to 50 vehicles between 8:00 a.m. and 9:00 a.m.

One existing designated on-site drop-off/pick-up points will also be maintained to accommodate the drop-off and pick-up of students on site. Spaces from the main parking lot are being removed to allow a larger radius for emergency vehicles access on-site, more vehicle queuing on-site, and to increase the flow of traffic from Edison Way

through to the drop-off points, reducing delay from motorists leaving parking spaces adjacent to the drop-off route.

The proposed parking reduction will balance the parking needs for the facility with improving site circulation, including for emergency access. Mitigation measures from the adopted 2017 Mitigated Negative Declaration (MND) requiring that all staff members who drive to the school be required to park in the school's on-site parking lot, that all on-site parking spaces be appropriately striped so that spaces are easily recognizable to drivers, and that school staff and/or parents be assigned to assist with the on-site management of drop-off and pick-up operations will continue to be required. Additionally, queuing analyses to identify any driveway back-up at the designated on-site drop-off/pick-up points will continue to be required on a bi-annual basis to ensure that vehicle stacking in the public right-of-way is not occurring.

b. Transportation Policies

General Plan Policies 12.16 (*Urban Road Improvements*) and 12.21 (*Local Circulation Policies*) encourage minimal through traffic in residential areas and adequate access for emergency vehicles. The project parcels are located along a row of industrial mixed use designated parcels within a greater primarily residential area. Since there are limited alternative options for accessing the site, the proposed project will generate vehicular traffic to the area. To mitigate any potential increased traffic impacts to the area, Synapse School will continue to offer shuttle service to serve students and/or faculty outside of the immediate community to reduce vehicle trips to the school site. Additionally, a morning peak hour vehicle trip cap will continue to be implemented with bi-annual counts by a third-party traffic consultant reported to the County.

An updated Traffic Impact Analysis (TIA) was prepared by Hexagon Transportation Consultants, Inc. for the project. The TIA provides analysis on intersection level of service impacts and queuing impacts that would be generated by the project. It was determined, based on the TIA, that the project will result in increased impacts to 2 key intersections within the areas, Edison Way/5th Avenue and Middlefield Road/2nd Avenue. Mitigation measures from the adopted 2017 MND, which are listed in Attachment D, were determined to be adequate to reduce project-related traffic impacts to a less than significant level, including the continuance of a student enrollment cap, a morning peak hour trip cap, and required traffic monitors in the drop off areas during peak drop off and pick up periods. Additionally, the previously

adopted mitigation for a left-turn refuge lane on Marsh Road has been installed, within the current roadway width.

c. Noise Policies

Policy 16.10 (*Designation of Noise Impact Areas*), Policy 16.13 (*Site Planning Noise Control*), and Policy 16.14 (*Noise Barriers Noise Control*), identifies certain areas within the County as noise impact areas and encourages the use of natural topography and intervening structures to shield noise sensitive land uses. A majority of the North Fair Oaks Community is identified as being within a Noise Impact Area as designated on the County's Community Noise Map. The project will utilize existing buildings located between the Southern Pacific Railroad tracks and Edison Way to continue the operation of an existing K-8 school. The majority of school activities will continue to be conducted indoors. The school does provide on-site outdoor recreational areas that includes one area at the rear of the project site, between 3375 Edison Way and 3355 Edison Way, and a second concrete parking area between 3375 Edison Way and 3425 Edison Way. Both outdoor recreational areas are fenced and utilize sound blankets and/or artificial turf to help absorb noise levels generated from play areas.

2. Compliance with the Zoning Regulations

Staff has reviewed and determined that the project is in compliance with all of the applicable Zoning Regulations, including the following:

a. Permitted Land Uses

The applicant is seeking an amendment to a use permit to increase enrollment of the existing Synapse School facility, which is allowed in the M-1/Edison/NFO Zoning District under the current regulations with a use permit. See Sections A.1.a and A.2.e of this report for further discussion on land use.

b. M-1/Edison/NFO Performance Standards

Section 6277.6 of the M-1/Edison/NFO Zoning Regulations states that no ongoing or new use may be conducted in a manner that does not meet the performance standards of the Zoning District with regard to limiting noise levels to the stipulated limits of the County Noise Ordinance; prohibiting dust and odor emissions beyond the boundaries of the M-1/Edison/NFO District; prohibiting vibration perceptible without instruments on adjoining property, except for temporary construction operations; keeping glare and rays from

exterior lighting to the confines of the premises; providing screening for trash and debris areas; and keeping all activities associated with the school use entirely on-site.

The majority of the school use will continue to operate within enclosed buildings, with the exception of periodic student breaks throughout the day. Aside from temporary dust or odor emissions that may be generated by interior remodeling to support the project, the school operation does not generate any detectible levels of dust or odor, or vibration. The project proposes to utilize existing development and therefore does not introduce any new sources of light or glare that would extend beyond the project parcels. A condition of approval has been included in Attachment A to require compliance with all performance standards of the respective zoning district.

c. Parking Regulations

The project includes the request for a reduction in off-street parking spaces as part of the use permit. In 2017 the County approved a parking reduction from the required 144 spaces to 128 parking spaces. The applicant is seeking an off-street parking exception as part of the proposed amendment to further reduce parking from 128 spaces to 60 parking spaces. M-1/Edison/NFO parking standards state that projects is required to have 5 percent of the parking spaces dedicated to electric vehicles and another 5 percent EV ready. A condition has been added requiring the EV parking spaces be shown on the plans during the building permit submittal. Additionally, 30 bicycle spaces are provided on-site. See Section A.1.a of this report for further discussion on parking compliance.

Screening and Landscaping

Parking areas for more than (10) vehicles shall be screened on each side that adjoins or faces residentially zoned parcels. Additionally, a planter or landscaped area of at least four (4) feet wide shall be provided adjacent to all street right-of-ways. A total not less than five (5) percent of the total parking area shall be landscaped.

Existing landscape planters, greater than four (4) feet in width, and 6 -foot tall wood fencing along Edison Way will continue to be maintained to help provide screening of the on-site parking areas from surrounding residential parcels across Edison Way.

Surface of Parking Area

Parking areas for more than ten (10) vehicles shall be surfaced with a durable and dust-free material. Off-street parking will be provided within the existing paved parking lot areas on-site.

d. Compliance with the Use Permit Findings

The applicant is seeking an amendment to use permit to expand the existing Synapse School facility, which is an allowed use in the M-1/Edison/NFO Zoning District with a Use Permit. The use permit amendment includes a request for a reduction in off-street parking spaces and an increase in student enrollment.

The granting of a use permit amendment is subject to the following finding:

That the establishment, maintenance, and/or conducting of the use will not, under the circumstances of the particular case, result in a significant adverse impact to coastal resources, or be detrimental to the public welfare or injurious to property or improvements in said neighborhood.

The project proposes to increase student capacity and reduce parking for an existing private kindergarten through 8th grade (K-8) school in an urban community that has been designated (by the North Fair Oaks Community Plan) to support medium to high density land uses including industrial, commercial, and institutional uses. The project will utilize existing development on the project parcels. The school is not proposing any significant operational changes to their current daily operation as a K-8 educational facility. Furthermore, minimal exterior building changes are proposed.

The amendment will increase student capacity from 260 to 310 students. While the proposed school expansion will result in an increase in traffic as student enrollment and staffing increases, an updated traffic impact analysis for the project has been completed and no new mitigation measures are recommended beyond those already adopted under the 2017 Mitigated Negative Declaration (MND) to reduce any traffic-related impacts, such as trip generation and vehicle queuing, to a less than significant level for the area (see Attachment D). Mitigation measures from the MND that continue to apply include, but are not limited to, a morning peak hour vehicle trip cap with bi-annual monitoring, a student enrollment cap, and daily on-site management of drop-off and pick-up operations at the school to minimize traffic impacts to the area.

The majority of school activities will continue to be conducted indoors and, therefore, will not result in noise levels in excess of any established noise standards. The school does provide on-site outdoor recreational areas; however, existing trees, living walls, acoustical wall panels, sound blankets, and artificial turf will help absorb any increased noise levels generated from play areas.

The project includes the request for a reduction in off-street parking spaces as part of the use permit. See Section A.1.a of this report for further discussion on parking compliance.

Therefore, based on the above findings and recommendations, the project is not expected to be detrimental to the public welfare or injurious to property or improvements in the neighborhood. Furthermore, the project is not located in the coastal zone, therefore, no coastal resources will be impacted by the project.

B. REVIEW BY THE NORTH FAIR OAKS COMMUNITY COUNCIL

The North Fair Oaks Community Council (NFOCC) reviewed this project at their January 27, 2022 meeting. The North Fair Oaks Community Council was in general support of the project and encouraged the applicant to continue expansion of the shuttle program to reduce traffic congestion. Public comment was given both in support of the project due to the positive impact the school has had on the community and in opposition to the project due to the increase in traffic that it will generate. The NFOCC recommended approval of the project.

C. ENVIRONMENTAL REVIEW

An Initial Study and Mitigated Negative Declaration (IS/MND) was adopted by the Planning Commission on August 9, 2017 for Synapse School (*Synapse School Expansion*). California Environmental Quality Act Guidelines Section 15314 exempts minor additions to existing schools where the addition does not increase original student capacity by more than 25 percent or ten classrooms, whichever is less. Existing student capacity is 260, and the proposed increase to 310 students constitutes a 19 percent increase; no new classrooms are proposed. In addition, staff prepared an addendum to the previously adopted Synapse School Expansion project IS/MND in accordance with CEQA Guidelines Section 15164 (Attachment D). The addendum further demonstrates that subsequent environmental review is not required because the project will not result in substantial changes or new significant impacts, or require new mitigation measures. The mitigation measures from the IS/MND, as slightly modified in the addendum, are included as recommended conditions of approval in Attachment A.

D. REVIEWING AGENCIES

Building Inspection Section
Department of Public Works
Environmental Health Services
Menlo Park Fire Protection District
North Fair Oaks Community Council

ATTACHMENTS

A. Recommended Findings and Conditions of Approval
B. Project Site Location Map
C. Project Plans
D. Addendum to 2017 Initial Study and Mitigated Negative Declaration
E. Traffic Study prepared by Hexagon Transportation Consultants, Inc.
F. 2017 Decision Letter
G. Parking Reduction Letter from the applicant
H. Public Comment Letters

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Attachment A

County of San Mateo
Planning and Building Department

RECOMMENDED FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2014-00295 Hearing Date: February 17, 2022

Prepared By: Kanoa Kelley, Project Planner For Adoption By: Zoning Hearing Officer

RECOMMENDED FINDINGS

Regarding the Environmental Review, Find:

1. That CEQA Guidelines Section 15314 exempts minor additions to existing schools where the addition does not increase original student capacity by more than 25 percent or ten classrooms, whichever is less. Existing student capacity is 260, and the proposed increase to 310 students constitutes a 19 percent increase; no new classrooms are proposed.

2. That only minor modifications to the Mitigated Negative Declaration adopted August 9, 2017 are required, and are provided in the Addendum included as Attachment D to the February 17, 2022 Zoning Hearing Officer staff report, and that the minor modifications do not constitute substantial changes requiring major revisions to the previously adopted Mitigated Negative Declaration, and no new mitigation measures are required.

3. That the Zoning Hearing Officer has considered the Addendum, along with the previously adopted Mitigated Negative Declaration, and determined no new significant environmental effects or substantial increase in the severity of environmental effects will occur and therefore that further environmental review is not required, pursuant to Section 15162 of the CEQA Guidelines.

Regarding the Use Permit, Find:

4. That the establishment, maintenance, and/or conducting of the use will not, under the circumstances of the particular case, result in a significant adverse impact to coastal resources, or be detrimental to the public welfare or injurious to property or improvements in said neighborhood as the school is not proposing any significant operational changes to their current daily operation as a K-8 educational facility, mitigation measures are included as conditions of approval to reduce any traffic-related impacts to a less than significant level for the area, and

a majority of the school activities will continue to be conducted indoors so as to not result in excessive noise levels.

As demonstrated with traffic counts the school is not expected to generate much parking demand beyond staff and occasional visitors (including parents) as the school will remain kindergarten to 8th grade (K-8), thus not generating significant student demand for parking space. The parking flow will be greatly improved with the proposed design modifications to the parking areas and monitors will be on site to further prevent backup into the right of way. Additionally, parking counts will be required to ensure compliance with trip caps. Therefore, the off-street parking facilities, including reduced parking spaces from 128 spaces to 60 spaces, as proposed, are as nearly in compliance with the requirements as are reasonable possible and the conducting of the school with 60 off-street parking spaces will not be detrimental to the public welfare or injurious to property or improvements in the neighborhood.

RECOMMENDED CONDITIONS OF APPROVAL

Current Planning Section

1. The approval applies only to the proposal as described in this report and materials submitted for review and approval by the Zoning Hearing Officer on February 17, 2022. The Community Development Director may approve minor revisions or modifications to the project if they are found to be consistent with the intent of, and in substantial conformance with, this approval.

2. The Use Permit shall be valid for five (5) years from the date of final approval and shall expire on February 17, 2027. The applicant shall apply for renewal of the Use Permit and pay applicable renewal fees six (6) months prior to expiration, if continuation of the use is desired. Any change in use shall be required to comply with applicable zoning regulations for this district.

3. Any change in use or intensity not already approved shall require an amendment to the use permit. Amendment to this use permit requires an application for amendment, payment of applicable fees, and consideration at a public hearing.

4. The applicant shall obtain a building permit prior to the start of any tenant improvement work on-site.

5. The project shall comply with all development standards and performance standards of the applicable M-1/Edison/NFO Zoning District.

6. An Underground Service Alert (USA) of the area to mark where the Alameda Pipeline is located is required prior to issuance of a building permit. If the proposed project involves any utility crossing the Alameda Pipeline on Edison Way, then the applicant shall be required to complete the San Francisco Public

Utilities Commission's (SFPUC) project review process to address any utility crossing issues early in the design phase and to avoid any unnecessary delays. Information about SFPUC's project review committee can be found at the following link: http://www.sfwater.org/index.aspx?page=450.

7. Noise sources associated with demolition, construction, repair, remodeling, or grading of any real property shall be limited to the hours from 7:00 a.m. to 6:00 p.m. weekdays and 9:00 a.m. to 5:00 p.m. Saturdays. Said activities are prohibited on Sundays, Thanksgiving, and Christmas (San Mateo Ordinance Code Section 4.88.360). Noise levels associated with the approved use shall not exceed the limitations set forth in the County Noise Ordinance and/or Performance Standards of the M-1/Edison/NFO Zoning District.

8. The applicant shall install three (3) dedicated electric vehicle parking spaces with charging capability and an additional three (3) spaces that are electric vehicle ready.

   Mitigation Measures from the 2017 adopted Mitigated Negative Declaration and Addendum (changes made to the previously adopted mitigation measures are shown in strike-through and underline format):

9. **Mitigation Measure 1:** Pursuant to the Bay Area Air Quality Management District's CEQA Guidelines (May 2011), the following Air Quality Best Management Practices shall be implemented throughout the duration of construction-related activities on the project site:

   a. Idling times shall be minimized either by shutting equipment or vehicles off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485, of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

   b. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications.

   c. Minimize the idling time of diesel powered construction equipment to two minutes.

10. **Mitigation Measure 2:** All staff members who drive to the school shall be required to park in the school's on-site parking lot.

11. **Mitigation Measure 3:** All 60 on-site parking spaces shall be appropriately striped. Striping marks shall be maintained in a clear and visible manner so that they are easily recognizable to drivers.

12. **Mitigation Measure 4:** Normal operation of the school shall not exceed 298 morning peak hour trips. The morning peak hour is defined as the highest one-hour period between 7:00 a.m. - 9:00 a.m. during which the maximum traffic generated by the school occurs.

    The applicant shall retain a third-party traffic consultant to count the trip generation of the school, which would include counting the school driveways plus counting any school-related traffic that is dropping off students along Edison Way or any of its cross-streets. The third-party consultant will conduct the counts over three (3) weekdays (a Tuesday, Wednesday, and/or Thursday) in October and March of each school year, excluding scheduled school holidays and early release days. The trip count shall be the average of the three (3) weekday counts. Concurrent with the trip counts, the third-party traffic consultant shall conduct a queuing analysis for on-street queuing due to driveway back-up at the designated on-site pick-up/drop-off points for the school. The data from the traffic counts shall be submitted to the County of San Mateo Traffic Services and the Current Planning Section of the County of San Mateo Planning and Building Department in a report for review and acceptance. These reports are due on April 30th and November 30th of each year., non-compliance in submitting reports in a timely manner may result in review of the use permit by the Planning Commission. The County may also choose to conduct its own monitoring if desired.

    If the monitoring shows that the trip cap is exceeded the applicant shall have 30 days to prepare and submit a Transportation Demand Management (TDM) Program that incorporates measures to reduce the number of trips below the trip cap, and shall have an additional 30 days to implement the TDM Program to bring the site into compliance with the trip cap. Measures included in the TDM Program may include, but shall not be limited to, staggering start times, adding shuttle buses, initiating a carpooling program, and offering staff incentives to take alternative transportation. A subsequent monitoring will be conducted by the County 30 days following implementation of the TDM Program. If the subsequent monitoring indicates that the site still exceeds the trip cap, then the applicant may shall reduce student enrollment to bring the site into compliance with the trip cap. Non-compliance evidenced by the subsequent monitoring may also result in review of the use permit by the Planning Commission.

13. **Mitigation Measure 5:** The applicant shall provide, upon request by the County, shuttle bus logs for all shuttle buses serving the school. The shuttle logs shall show the number of students dropped off and picked up at the school site each day.

14. **Mitigation Measure 6:** The maximum student enrollment shall not exceed ~~260~~ 310 students. The applicant shall submit an annual report stating the total number of students and staff attending or working at the school prior to the beginning of each school year. Any increase in student enrollment beyond ~~260~~ 310 students shall require an amendment to the ~~Non-Conforming~~ Use Permit and shall require

an updated Traffic Impact Analysis.

~~15. **Mitigation Measure 7:** The applicant shall apply for an encroachment permit to install a left-turn refuge lane on Marsh Road, within the current roadway width, to improve the intersection operation. Plans shall be submitted to the Department of Public Works Traffic Services for review and approval. (*Mitigation satisfied*)~~

15. **Mitigation Measure 7:** The school shall provide designated staff or parents to assist in the on-site management of drop-off and pick-up operations.

Menlo Park Fire Protection District

16. Alterations to the building that impact the Fire Alarm and/or Fire Suppression Systems shall require a deferred submittal with a minimum of two sets of plans and with specifications provided to the Menlo Park Fire Protection District for review and approval prior to initiating work that would impact those systems. Only a qualified C-16 contractor working on a fire suppression system or C-10 licensed contractor working on a fire detection system can complete necessary work on those systems.

17. Address markers. All buildings shall have a permanently posted address, which shall be placed at each driveway entrance and be visible from both directions of travel along the road. Permanent addresses on new construction and substantial remodels shall be internally or externally illumined from dusk to dawn. Addresses shall be posted at the beginning of construction and shall be maintained thereafter. The address shall be visible and legible from the road on which the address is located. Address signs along one-way roads shall be visible from both the intended direction of travel and the opposite direction.

18 The building Fire Sprinkler System shall be maintained operational at all times during alteration. When the renovation requires modification of a portion of a fire protection system, the remainder of the system shall be kept in service. CFC Section 3304.5, & NFPA 241 Section 10.8.

19. Sprinkler system to comply with NFPA 13 (2016 edition). Fire alarm system to comply with NFPA 72 (2016 edition). As amended by MPFPD.

20. A 2A10BC (minimum) Fire Extinguisher shall be located at or near all exits and shall be placed so that the travel distance to a fire extinguisher shall not to exceed 75 feet. Verify with Fire Inspector at time of rough inspection to assist with placement of extinguisher(s).

21. Exit signs, emergency lighting, address posting, fire lane, marking, fire extinguishers and Knox Box location to be field verified by Fire Inspector.

22 A final inspection by the Fire Prevention Division is required.

23. Approved plans, approval letter and permit must be on site at the time of inspection.

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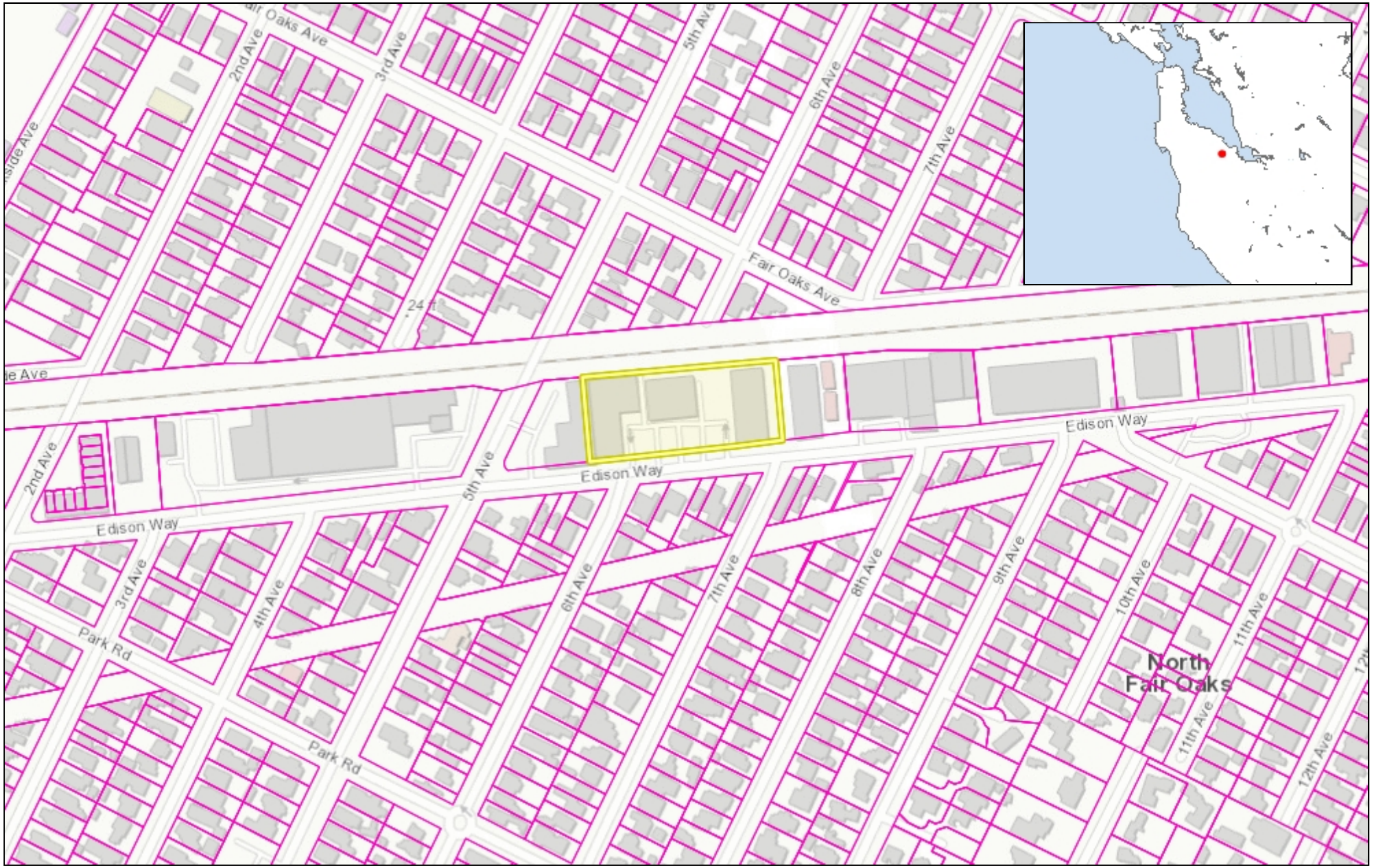
County of San Mateo - Planning and Building Department

ATTACHMENT B

San Mateo County

County San Mateo, CA



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San Mateo County

County San Mateo, CA

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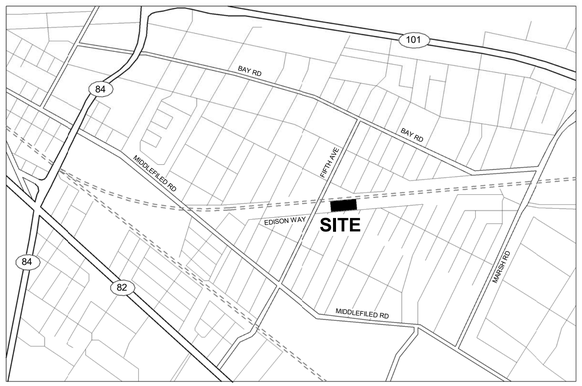
County of San Mateo - Planning and Building Department

ATTACHMENT C

SYNAPSE SCHOOL RENOVATION

3375 EDISON WAY, MENLO PARK

USE PERMIT AMENDMENT APPLICATION



1 LOCATION MAP

3/8" = 1'-0"

DRAWING LIST

SHEET NUMBER	SHEET NAME
CUP APPLICATION	
A01	COVER
A02	SITE PLAN
A03	FLOOR PLANS_BLDG 1
A04	FLOOR PLANS_BLDG 2
A05	ELEVATIONS_BLDG1
A06	ELEVATIONS_BLDG 2
A07	FLOOR PLANS_BLDG 3
A08	FLOOR PLANS_BLDG 4

PROJECT SUMMARY

SCOPE OF WORK INCLUDES:

[BUILDING 1 AND 2]
- DEMOLITION OF ALL EXISTING INTERIOR WALLS, DOORS, AND WINDOWS.
- DEMOLITION OF LIMITED AREA OF EXTERIOR WINDOWS
- CONSTRUCTION OF NEW INTERIOR WALLS, DOORS, AND WINDOWS
- CONSTRUCTION OF NEW EXTERIOR WINDOWS AND DOORS

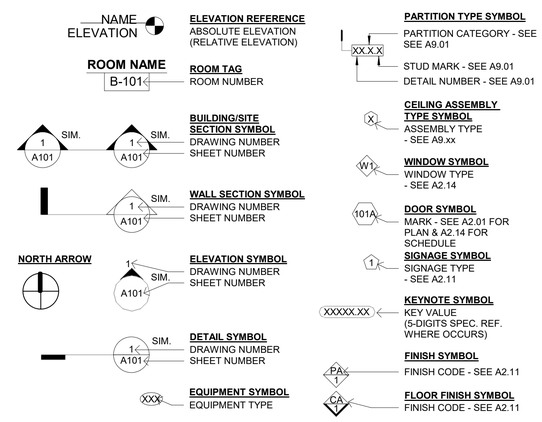
[BUILDING 3]
- CONSTRUCTION OF NEW INTERIOR WALLS AND DOORS TO CREATE PRE-KINDERGARTEN CLASSROOMS

PROJECT LOCATION

3375 EDISON WAY
MENLO PARK, CA 94025

2 BUILDING INFORMATION

1" = 1'-0"



SYMBOLS

12" = 1'-0"

3 GENERAL NOTES

1 : 1

1. EXAMINE THE SITE AND COMPARE IT WITH DRAWINGS. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO THE START OF WORK.
2. THE CONSTRUCTION DOCUMENTS ARE PROVIDED TO ILLUSTRATE THE DESIGN AND GENERAL TYPE OF CONSTRUCTION DESIRED AND IMPLY THE FINEST QUALITY OF CONSTRUCTION MATERIAL AND WORKMANSHIP THROUGHOUT. THE CONTRACTOR SHALL COMPLY WITH THE SPIRIT AS WELL AS THE LETTER IN WHICH THEY WERE WRITTEN.
3. ALL CONSTRUCTION DOCUMENTS ARE COMPLIMENTARY AND WHAT IS CALLED FOR BY ANY WILL BE AS BINDING AS IF CALLED FOR BY ALL.
4. S.E.D. AND S.M.D. FOR LOCATION OF ALL INTERIOR AND EXTERIOR HOUSEKEEPING PADS, VENT, DUCT, CONDUIT, AND SLEEVE PENETRATIONS.
5. PROVIDE AS USED HEREIN SHALL MEAN FURNISH AND INSTALL.
6. PROTECT SITE AND NEW OR EXISTING MATERIALS AND FINISHES FROM DAMAGE WHICH MAY OCCUR FROM CONSTRUCTION DEMOLITION, DUST, WATER ETC. AND PROVIDE AND MAINTAIN TEMPORARY BARRICADE, CLOSURE WALLS ETC. AS REQUIRED TO PROTECT THE PUBLIC DURING THE PERIOD OF CONSTRUCTION. DAMAGE TO NEW AND EXISTING MATERIALS, FINISHES STRUCTURES AND EQUIPMENT SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ARCHITECT.
7. PATCH ALL AREAS DAMAGED DUE TO NEW CONSTRUCTION OR WHERE PENETRATION OF UTILITIES HAS OCCURRED AND BEEN REMOVED. REPAIR ALL DEMOLITION PERFORMED IN EXCESS OF THAT REQUIRED, AT NO COST TO OWNER. PATCH ALL FINISHES TO MATCH EXISTING ADJACENT WHERE NEW CONSTRUCTION MEETS EXISTING.
8. MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DOCUMENTS ON THE SITE DURING ALL PHASES OF CONSTRUCTION, FOR THE USE OF ALL TRADES, AND PROVIDE ALL SUB-CONTRACTORS WITH CURRENT CONSTRUCTION DOCUMENTS AS REQUIRED.
9. REMOVE ALL RUBBISH AND WASTE MATERIALS ON A REGULAR BASIS AND EXERCISE STRICT CONTROL OVER JOB CLEANING TO PREVENT ANY DIRT, DEBRIS OR DUST FROM AFFECTING FINISHED AREA IN OR OUTSIDE SITE.
10. VERIFY ALL DIMENSIONS SHOWN ON DRAWINGS BY TAKING FIELD MEASUREMENTS. PROPER FIT AND ATTACHMENT OF ALL PARTS IS REQUIRED. NOTIFY ARCHITECT OF CONFLICTS PRIOR TO THE START OF WORK. DO NOT SCALE DRAWINGS TO LAY OUT WALL. TYPICAL DIMENSIONS SHOWN ARE TO THE FACE OF STUD, UNLESS OTHERWISE NOTED. ALL DIMENSIONS NOTED "CLEAR" SHALL BE STRICTLY MAINTAINED.
11. THE ARCHITECT HAS NO KNOWLEDGE OF AND SHALL NOT BE HELD LIABLE FOR ANY ASBESTOS OR OTHER HAZARDOUS MATERIAL ON JOB SITE. IF ASBESTOS OR OTHER HAZARDOUS MATERIALS ARE DISCOVERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY ISOLATE THE AFFECTED AREA AND NOTIFY THE OWNER FOR FURTHER INSTRUCTION BEFORE PROCEEDING.
12. ALL MATERIALS TO BE INSTALLED ARE TO BE NEW. DO NOT REUSE REMOVED OR OTHERWISE DEMOLISHED MATERIALS UNLESS DIRECTED BY THE
13. ARCHITECT.

    DIMENSIONS ARE TO FACE OF GWB OR GRID, U.O.N. GRID LINES CORRESPOND TO CENTER OF STUD OR COLUMN, U.O.N.

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■ Client

SYNAPSE SCHOOL

■ Project Name

SYNAPSE SCHOOL RENOVATION

3375 EDISON WAY
MENLO PARK, CA 94025

■ Consultants

■ Sheet Name

COVER

■ Revisions

■ Sheet Information

Drawing Scale: As indicated
Drawn By: Author

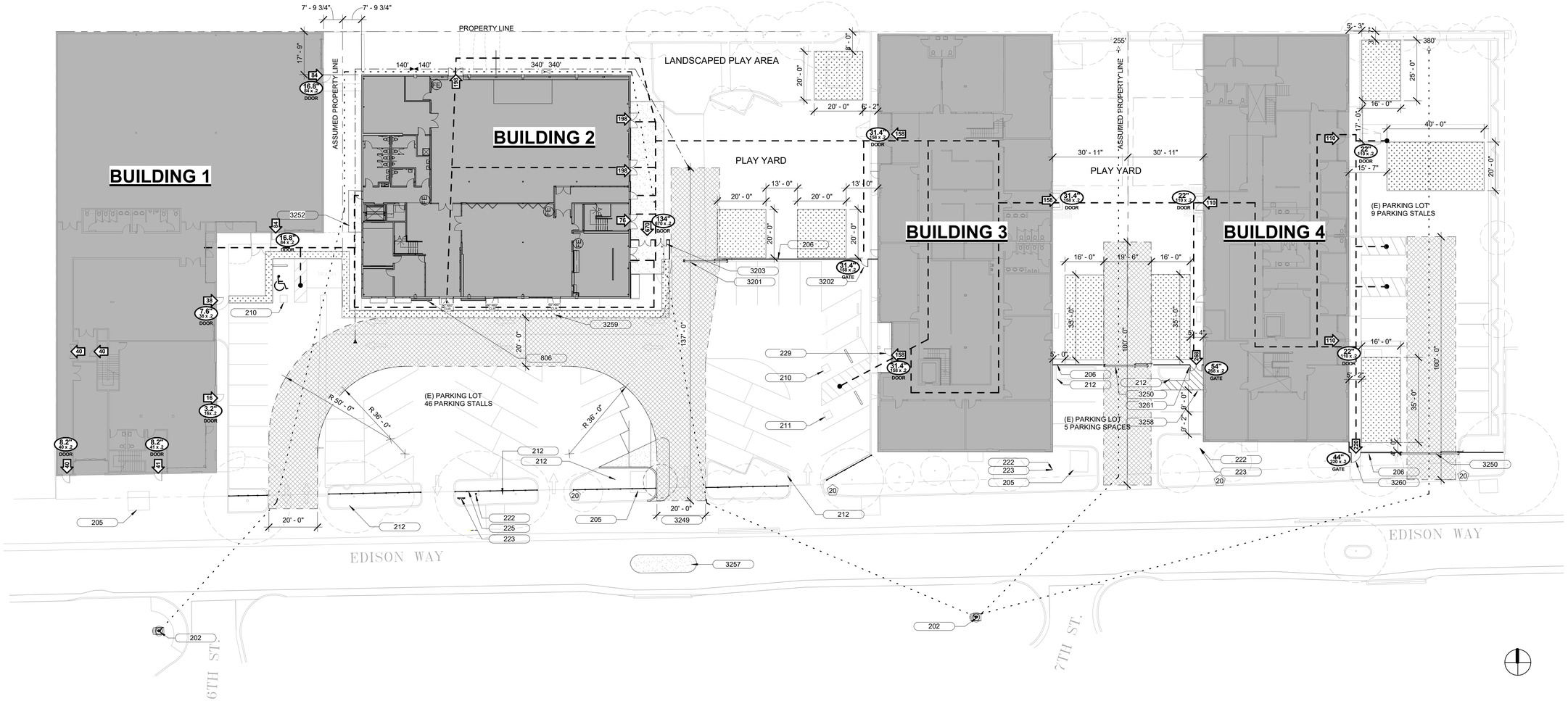
■ Project Information

Date: 4/21/2021
Status: USE PERMIT APPL.
Project Number: 1902

■ Sheet

A01

11/1/2019 9:37:20 AM



1 SITE EGRESS & FIRE ACCESS PLAN
3/64" = 1'-0"

SHEET NOTES

PARKING DEMAND SUMMARY
Parking demand as observed by Hexagon in November 2019: 37 - 50 stalls
Student enrollment in 2019: 260 students
Revised student enrollment capacity: 310 students (19.2% increase)
Parking demand for revised student enrollment capacity: 44 - 60 stalls

PARKING PROPOSED
Building 1 & 2 parking lot: 46 stalls
Building 3 parking lot: 5 stalls
Building 4 parking lot: 9 stalls
Total parking stalls proposed: 60 stalls

2 PARKING DEMAND SUMMARY
1" = 1'-0"

KEYNOTE

KEY VALUE	DESCRIPTION
202	(E) FIRE HYDRANT
205	(E) TRANSFORMER
206	(E) CHAIN LINK FENCE
210	(E) VAN ACCESSIBLE PARKING SPACE
211	(E) ACCESIBLE PARKING
212	(E) PLANTER W 6" CURB
222	(E) PIV
223	(E) FDC
225	(E) CHECK VALVE
229	(E) MAIN ACCESS/ ENTRANCE TO CAMPUS.
806	EMERGENCY ACCESS KEY LOCK BOX, KNOX OR OTHER FIRE DEPARTMENT APPROVED EQUAL. VERIFY LOCATION WITH FIRE MARSHAL.
3201	20" CLEAR WIDTH SLIDING CHAINLINK FIRE ACCESSS GATE W/ FD APPROVED LOCK AND KNOX BOX.
3202	3'-0" ACCESSIBLE CHAIN LINK GATE. PANIC HARDWARE.
3203	6'-0" ACCESSIBLE CHAIN LINK GATE. PANIC HARDWARE.
3249	(N) 20'-0" MIN CLR FIRE ACCESS
3250	(E) CHAIN LINK SLIDING GATE
3252	(N) ELEVATED WALKWAY, S.C.D.
3257	(N) AC PAVING WHERE CONCRETE CURB AND PLANTER HAVE BEEN REMOVED IN PUBLIC RIGHT OF WAY
3258	(N) PAVEMENT STRIPING
3259	(N) TRUNCATED DOME WARNING STRIP. 3'-0" MIN.
3260	(N) 4'-0" ACCESSIBLE CHAIN LINK GATE. PANIC HARDWARE.
3261	(N) 5'-0" ACCESSIBLE CHAIN LINK GATE. PANIC HARDWARE.

LEGEND

- FIRE HYDRANTS
- DISTANCE FROM HYDRANT TO BUILDING PERIMETER; 600' MAX., CFC 507.5.1
- HOSE DISTANCE FROM FIRE ACCESS ROAD OR LANE TO BUILDING PERIMETER;150' MAX., CFC 503.1.1
- OCCUPANT LOAD AT POINT OF EGRESS PATH
- MIN. EGRESS WIDTH:
  32" MIN. @ DOORS (CBC 1010.1.1)
  72" MIN. @ CORRIDORS (CBC 1020.2)
  EGRESS WIDTH FACTOR: (.3) FOR STAIRWAYS & (.2) AT OTHER EGRESS COMPONENTS
  OCCUPANT LOAD AT POINT OF EGRESS PATH
- PROPERTY LINE
- FIRE APPARATUS ACCESS LANE: 20'-0" MIN CLR WIDTH AT STRAIGHT SECTIONS. 25' MIN AT TURNS (25 MIN ID, 50' MIN CLR OD); 13'-6" OVERHEAD CLR. CFC 503.2.1.
- ENTRANCE SIGN "B", PER THE MENLO PARK FIRE PROTECTION DISTRICT APPROVED FIRE LANE SIGNS
- ACCESSIBLE CLEARANCE - DIMENSIONS AS INDICATED . 2% MAX SLOPE ANY DIRECTION
- (E) OUTDOOR OPEN SHELTER
- ACCESSIBLE PARKING

  TOTAL NUMBER OF PARKING SPACES ADJACENT TO BUILDING 2 = 51
  NUMBER OF ACCESSIBLE PARKING STALLS REQUIRED PER CBC TABLE 11B-6: 3
  NUMBER OF VAN-ACCESSIBLE PARKING STALLS PROVIDED: 2
- ACCESSIBLE PATH OF TRAVEL

  ACCESSIBLE PATH OF TRAVEL (POT) AS INDICATED ON PLAN IS A BARRIER-FREE ACCESS POT WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING 1/2" BEVELED AT 1:2 MAX. SLOPE, OR VERTICAL LEVEL CHANGES NOT EXCEEDING 1/4" MAX. AND AT LEAST 48" WIDE. SURFACE IS SLIP-RESISTANT, STABLE, FIRM AND SMOOTH. CROSS SLOPE DOES NOT EXCEED 2% AND SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5% UNLESS OTHERWISE INDICATED.

  ACCESSIBLE PATH OF TRAVEL (POT) SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM, AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM WALL AND ABOVE 27" AND LESS THAN 80". ARCHITECT HAS VERIFIED THAT THERE ARE NO BARRIERS IN THE POT.

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LICENSED ARCHITECT
STEVEN BENJAMIN KOLM
NO.C15946
EXP. 03/21
STATE OF CALIFORNIA

■ Client
SYNAPSE SCHOOL

■ Project Name
SYNAPSE SCHOOL RENOVATION
3355 EDISON WAY, MENLO PARK CA 94025

■ Consultants

■ Sheet Name
SITE EGRESS & FIRE ACCESS PLAN

■ Revisions

Revision 1	6/8/2020
Revison 2	10/22/2020

■ Sheet Information
Drawing Scale: As indicated
Drawn By: Author

■ Project Information
Date: 4/21/2021
Status: USE PERMIT APPL.
Project Number: 1902

■ Sheet
A02

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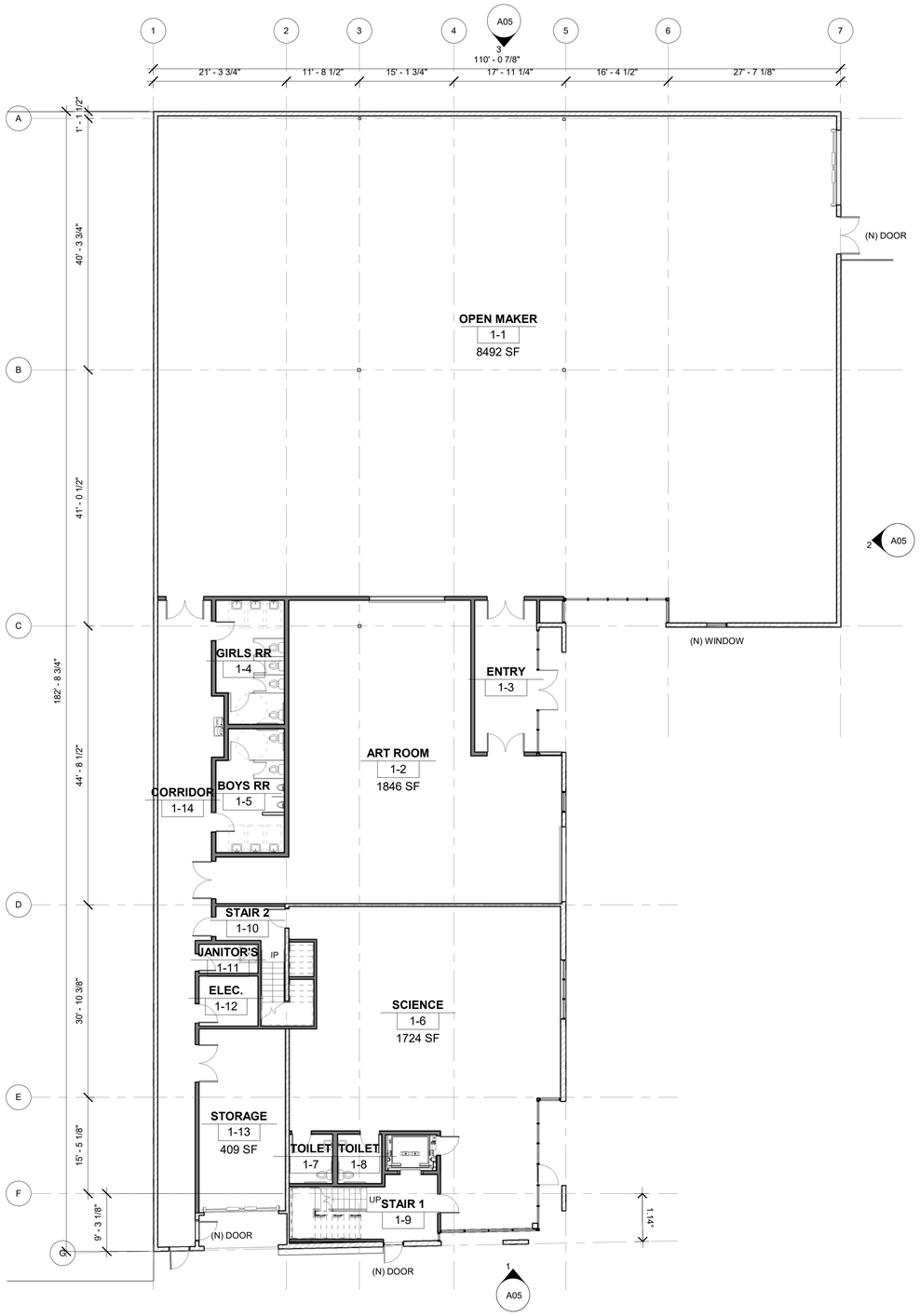

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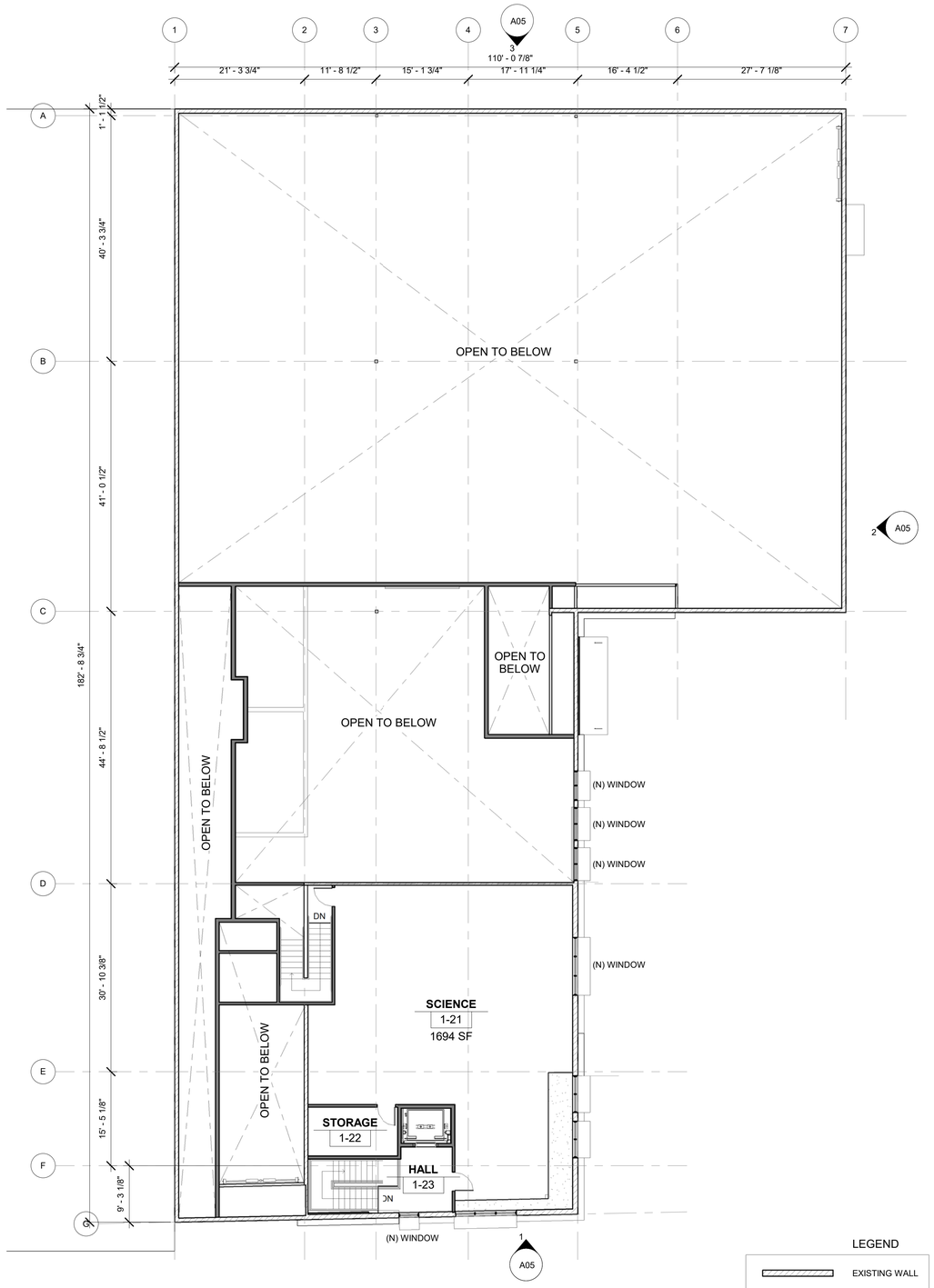
3/32" = 1'-0"



2 FLOOR PLAN (BLDG 1) - LEVEL 02
3/32" = 1'-0"

LEGEND

EXISTING WALL

NEW WALL

11/1/2019 9:37:31 AM

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SYNAPSE SCHOOL

■ Project Name

SYNAPSE SCHOOL
RENOVATION

3375 EDISON WAY
MENLO PARK, CA 94025

■ Consultants

■ Sheet Name

FLOOR PLANS_BLDG 1

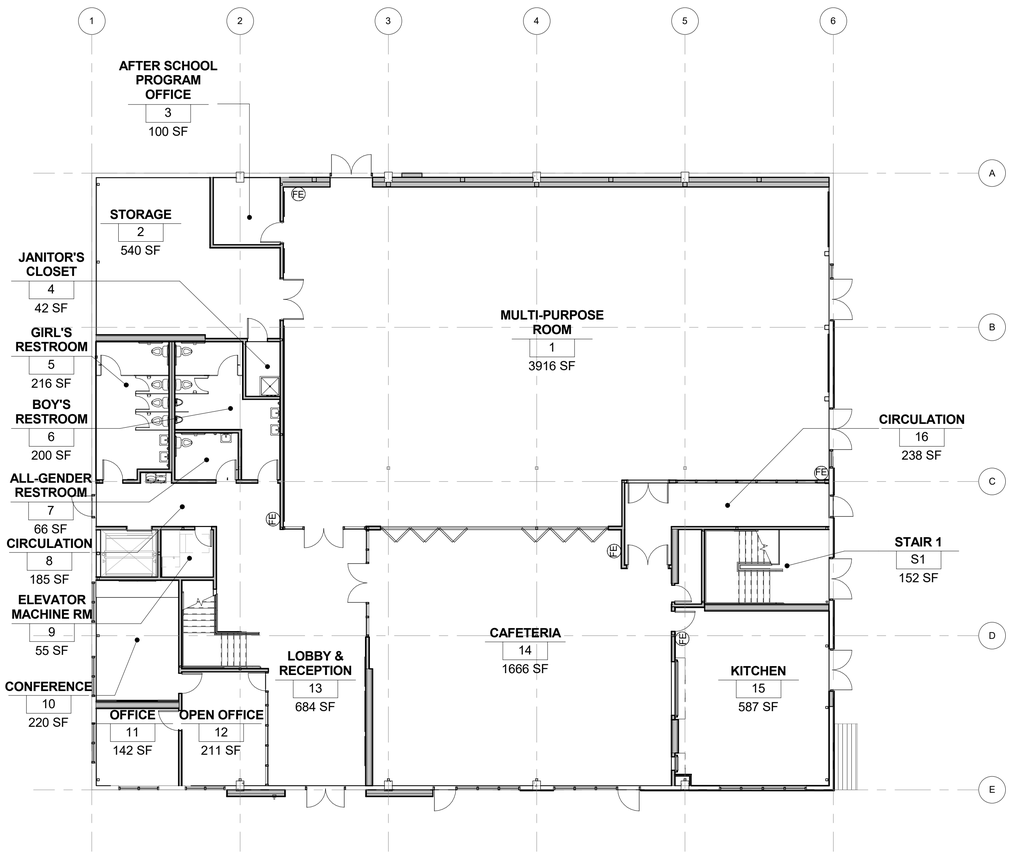
■ Revisions

■ Sheet Information
Drawing Scale: 3/32" = 1'-0"
Drawn By: Author

■ Project Information
Date: 4/21/2021
Status: USE PERMIT APPL.
Project Number: 1902

■ Sheet

A03



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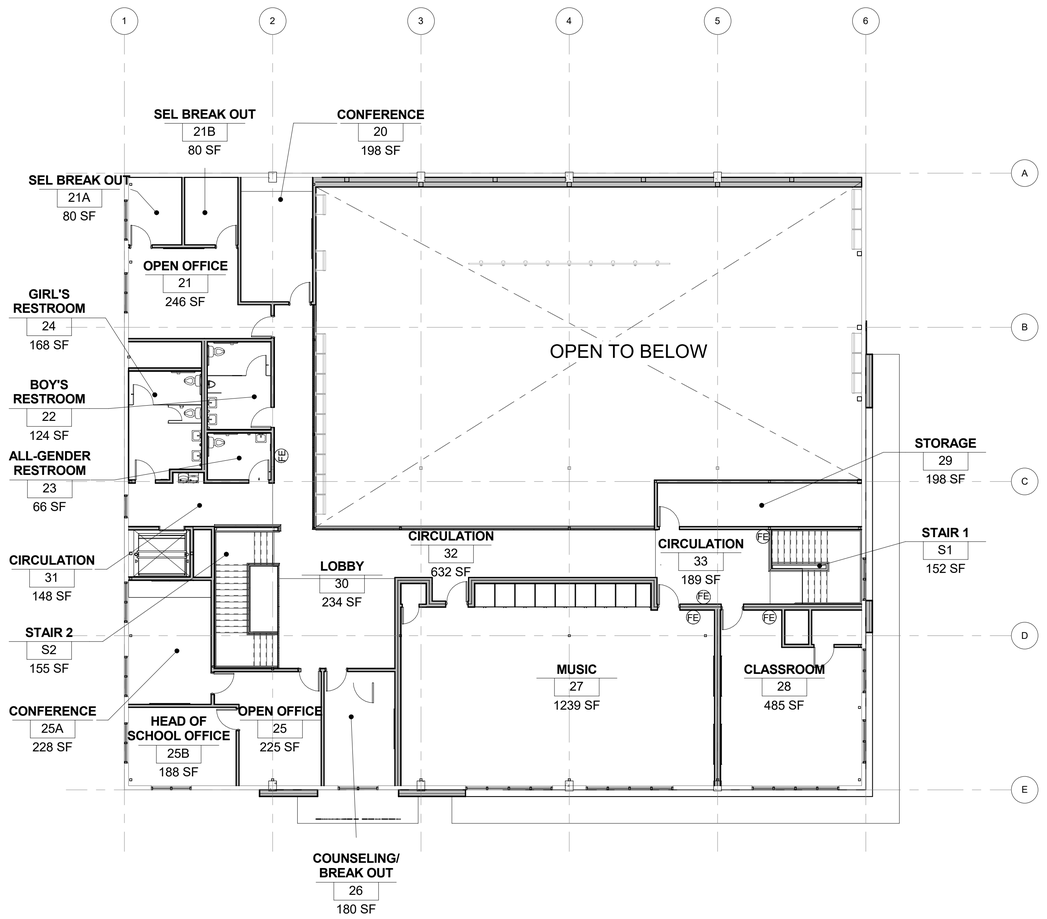

2 FLOOR PLAN - LEVEL 2
3/32" = 1'-0"

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■ Client
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■ Project Name
SYNAPSE SCHOOL RENOVATION
3355 EDISON WAY, MENLO PARK CA 94025

■ Consultants

■ Sheet Name
FLOOR PLANS _BLDG 2

■ Approval Stamp

■ Revisions

■ Sheet Information
Drawing Scale: 3/32" = 1'-0"
Drawn By: Author

■ Project Information
Date: 1/30/2020
Status: USE PERMIT APPL.
Project Number: 1902

■ Sheet
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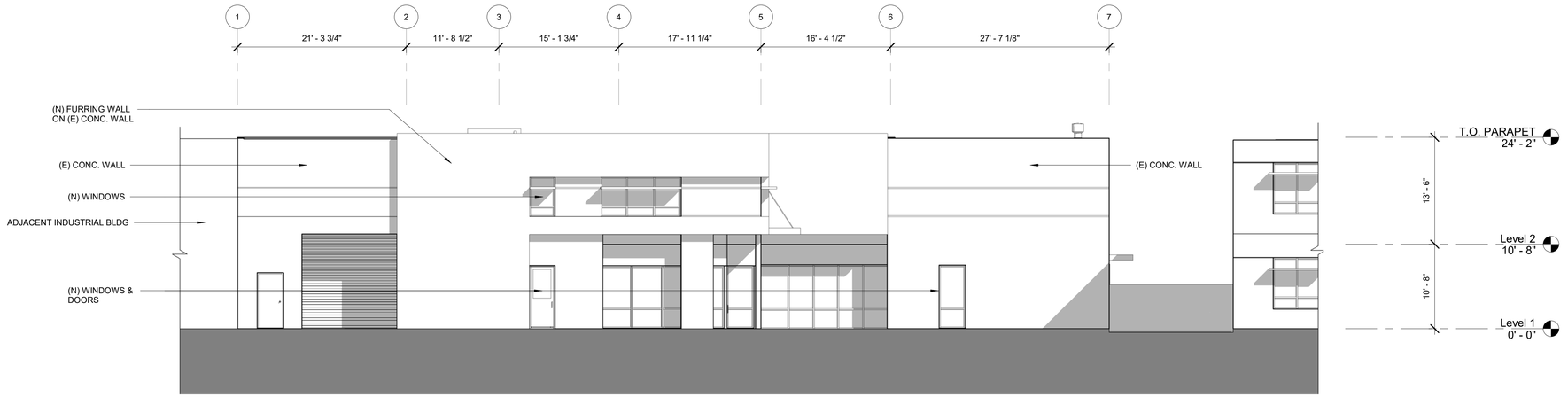

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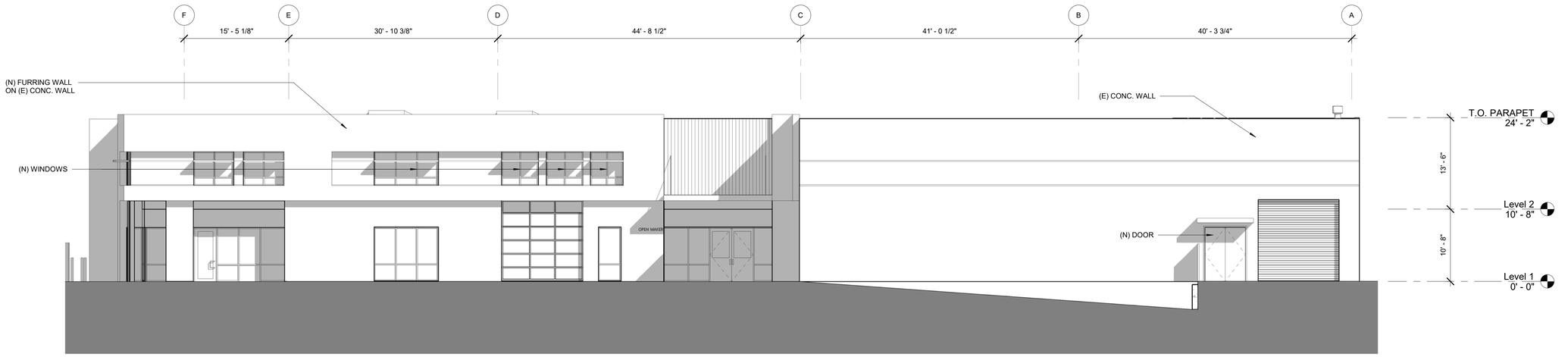
1/8" = 1'-0"



2 WEST ELEVATION_BLDG 1
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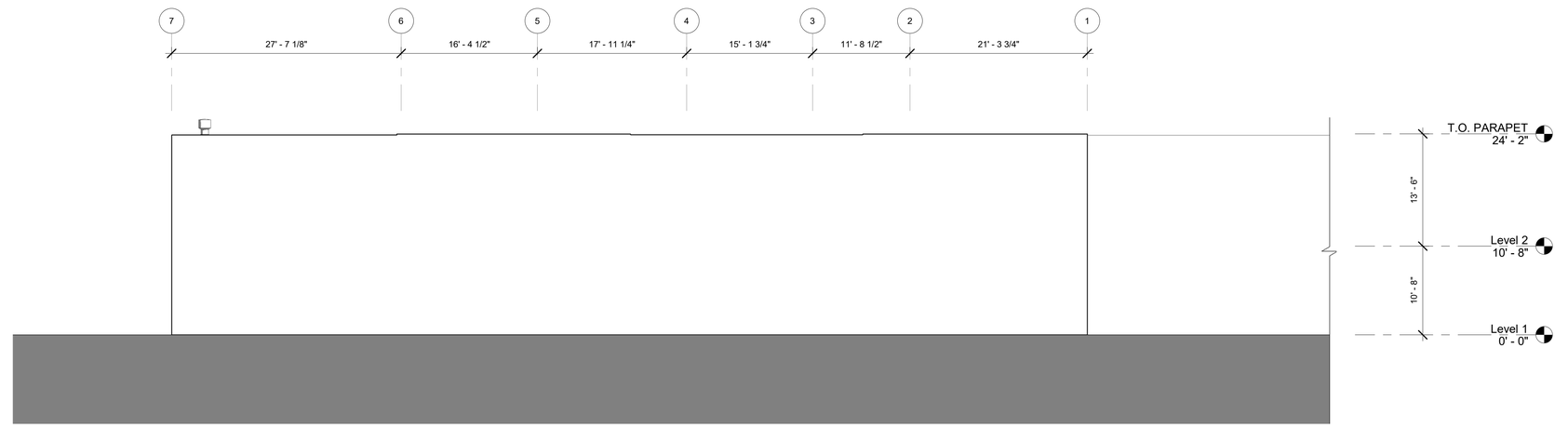

3 NORTH ELEVATION_BLDG 1
1/8" = 1'-0"

11/1/2019 9:37:41 AM

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■ Client
SYNAPSE SCHOOL

■ Project Name
SYNAPSE SCHOOL RENOVATION

3375 EDISON WAY
MENLO PARK, CA 94025

■ Consultants

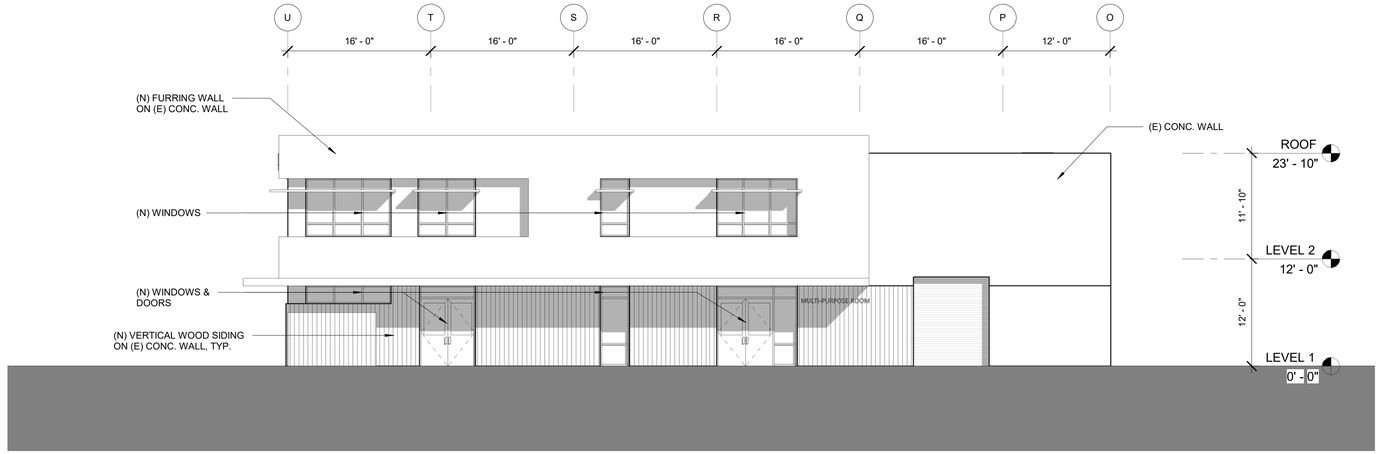
■ Sheet Name
ELEVATIONS_BLDG1

■ Revisions

■ Sheet Information
Drawing Scale: 1/8" = 1'-0"
Drawn By: Author

■ Project Information
Date: 4/21/2021
Status: USE PERMIT APPL.
Project Number: 1902

■ Sheet
A05



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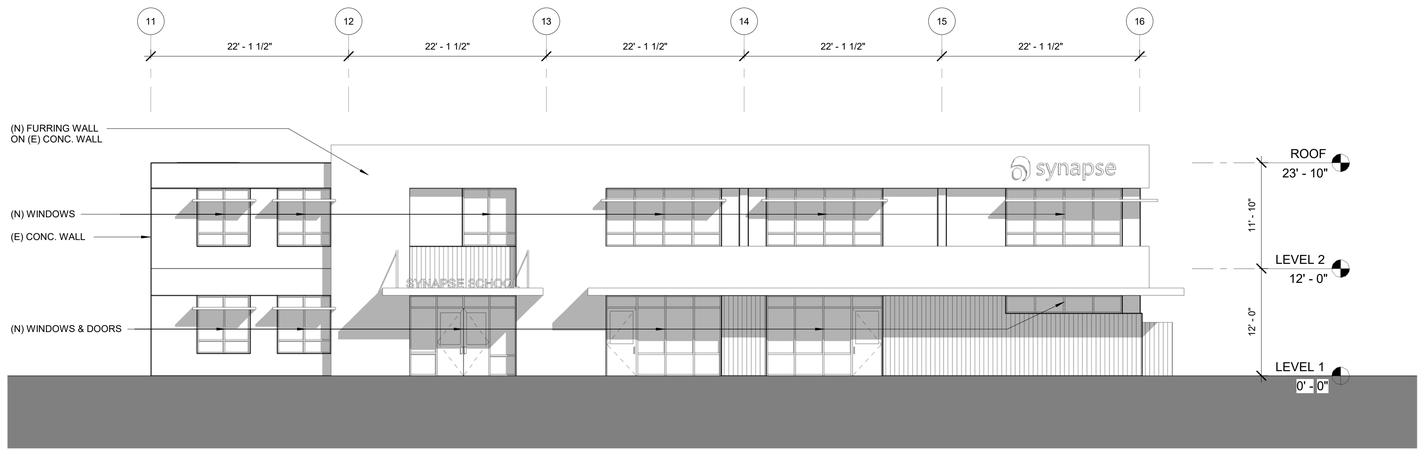

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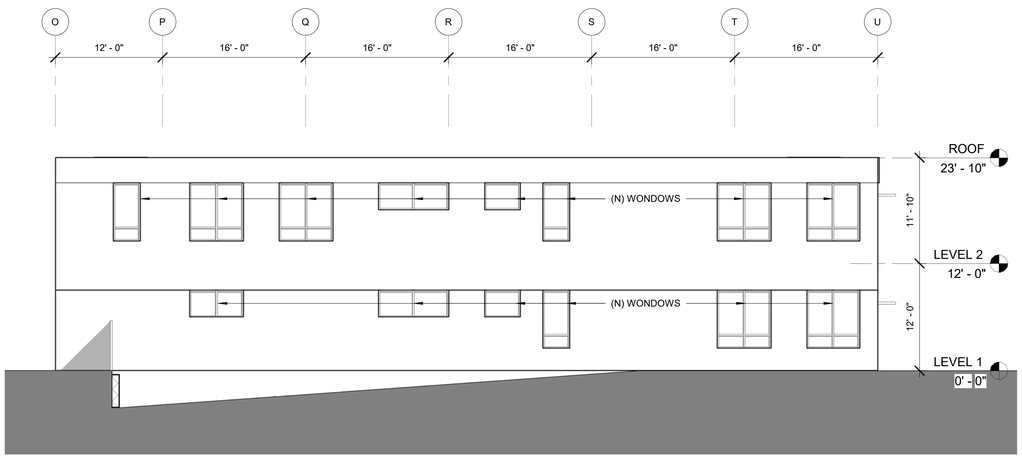

3 WEST ELEVATION_BLDG 2
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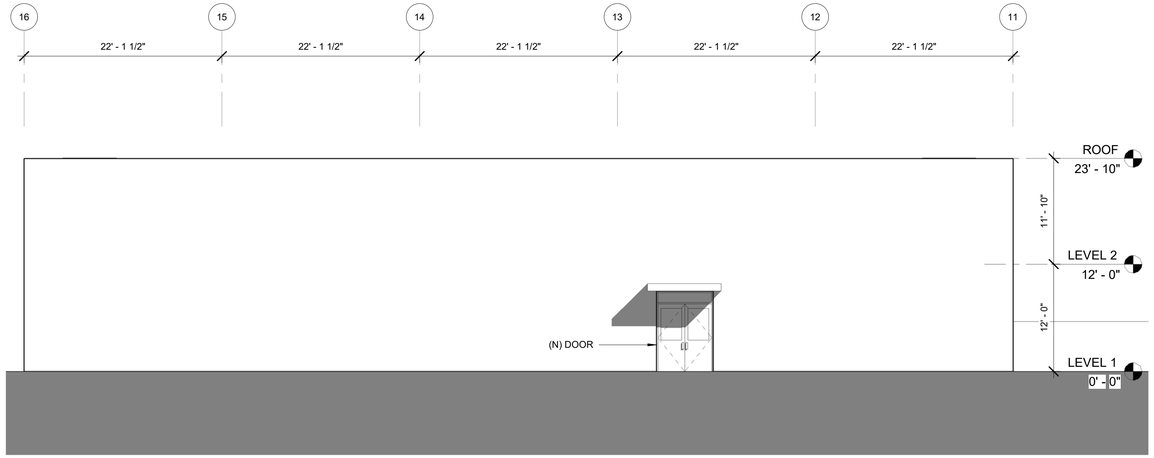

4 NORTH ELEVATION_BLDG 2
1/8" = 1'-0"

11/1/2019 9:37:47 AM

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■ Client
SYNAPSE SCHOOL

■ Project Name
SYNAPSE SCHOOL RENOVATION

3375 EDISON WAY
MENLO PARK, CA 94025

■ Consultants

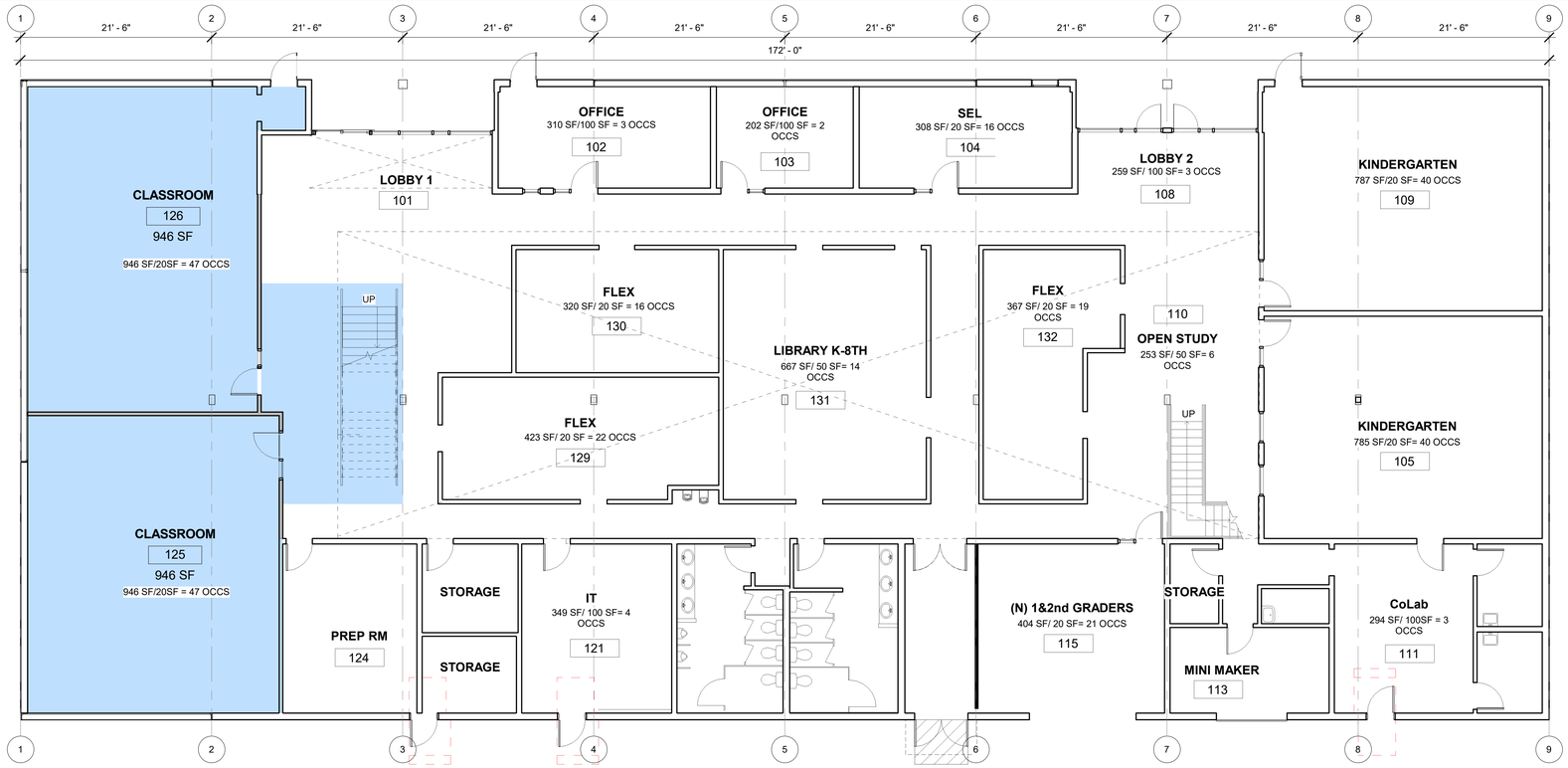
■ Sheet Name
ELEVATIONS_BLDG 2

■ Revisions

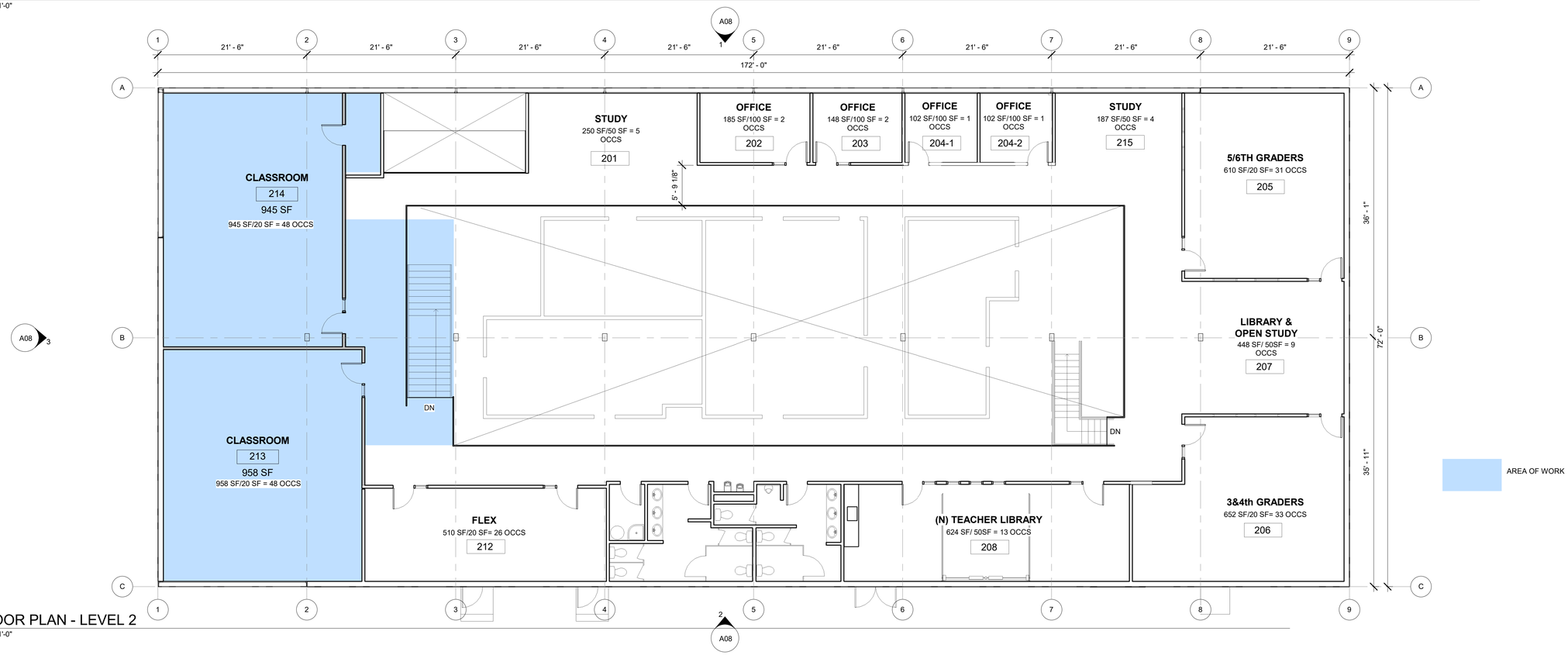
■ Sheet Information
Drawing Scale: 1/8" = 1'-0"
Drawn By: Author

■ Project Information
Date: 4/21/2021
Status: USE PERMIT APPL.
Project Number: 1902

■ Sheet
A06



1 FLOOR PLAN - LEVEL 1
1/8" = 1'-0"



2 FLOOR PLAN - LEVEL 2
1/8" = 1'-0"

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SYNAPSE SCHOOL

■ Project Name
SYNAPSE SCHOOL RENOVATION BUILDING 3

3375 EDISON WAY, MENLO PARK

■ Consultants

■ Sheet Name
FLOOR PLAN - BLDG 3

■ Revisions

■ Sheet Information
Drawing Scale: 1/8" = 1'-0"
Drawn By: Author

■ Project Information
Date: 4/21/2021
Status: USE PERMIT APPL.
Project Number: 1902

■ Sheet
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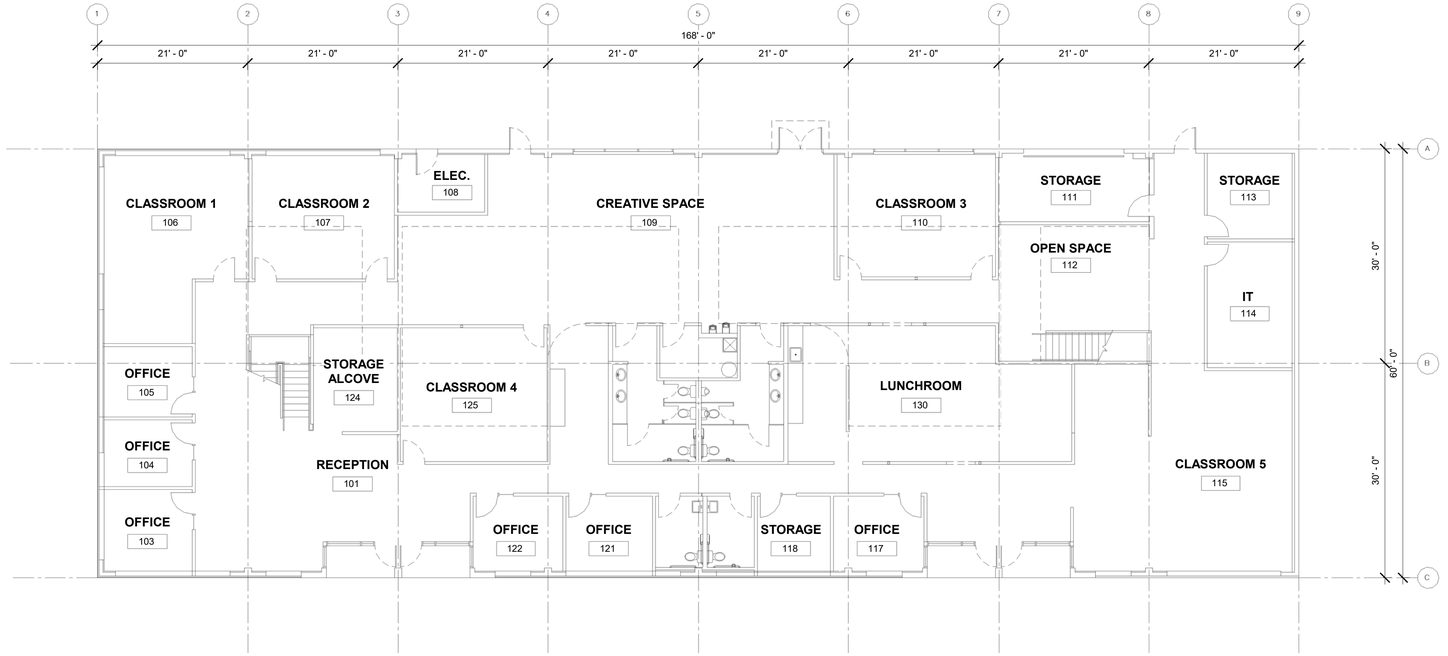
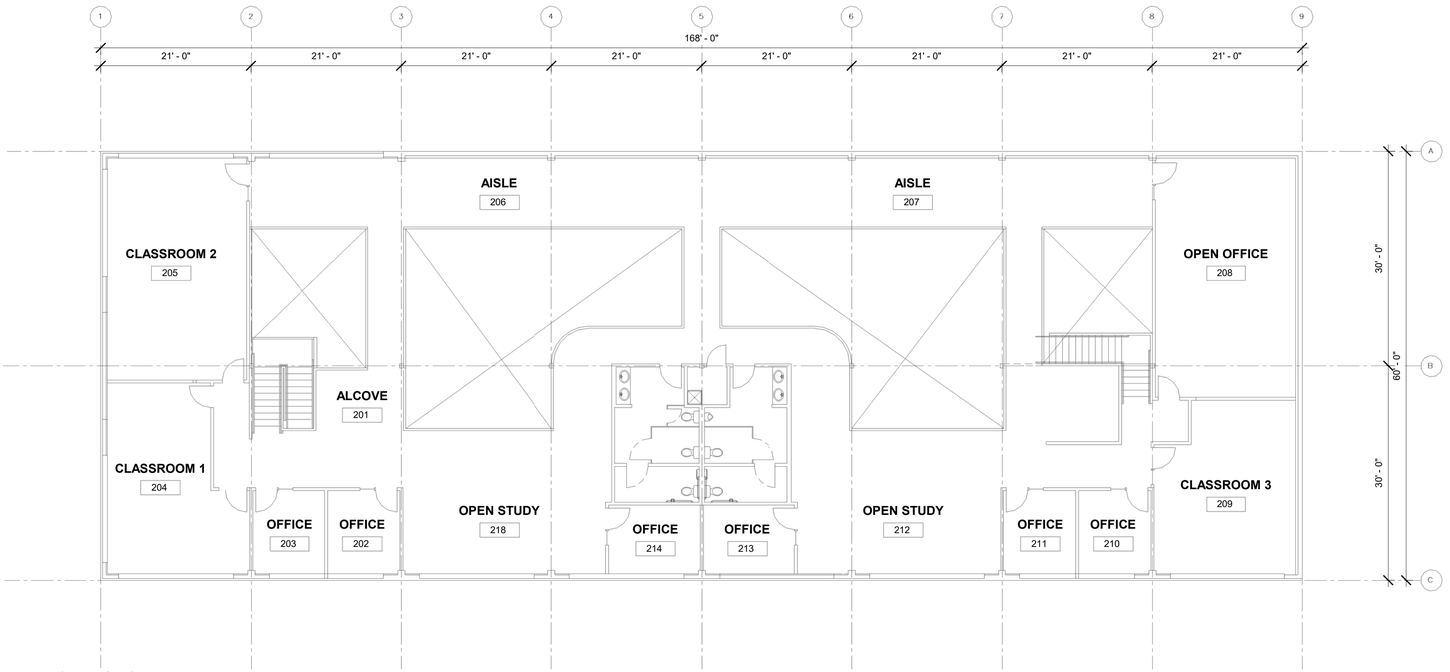


** NOTE :

NO INTERIOR OR EXTERIOR WORK IS PLANNED

1 FLOOR PLAN (BLDG 4) - LEVEL 01
1" = 10'-0"



** NOTE :

NO INTERIOR OR EXTERIOR WORK IS PLANNED

2 FLOOR PLAN (BLDG 4) - LEVEL 02
1" = 10'-0"

11/1/2019 9:37:54 AM

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■ Client

SYNAPSE SCHOOL

■ Project Name

SYNAPSE SCHOOL
RENOVATION

3375 EDISON WAY
MENLO PARK, CA 94025

■ Consultants

■ Sheet Name

FLOOR PLANS_BLDG 4

■ Revisions

■ Sheet Information
Drawing Scale: 1" = 10'-0"
Drawn By: Author

■ Project Information
Date: 10/29/19
Status: USE PERMIT APPL.
Project Number: 1902

■ Sheet

A08

County of San Mateo - Planning and Building Department

ATTACHMENT D

COUNTY OF SAN MATEO, PLANNING AND BUILDING DEPARTMENT

ADDENDUM TO THE SYNAPSE SCHOOL EXPANSION PROJECT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION 3375 Edison Way (APNs 060-042-260 and 060-042-240)

FILE No: PLN2014-00295

Owner: 3355 Edison Partners

Location: 3375, 3355, 3345, and 3425 Edison Way, North Fair Oaks

APNs: 060-042-260 (3375, 3355, and 3345 Edison Way) and 060-042-240 (3425 Edison Way)

The County of San Mateo (County) has prepared an Addendum to the Synapse School Expansion Project Initial Study/Mitigated Negative Declaration (IS/MND) pursuant to the California Environmental Quality Act (CEQA) Guidelines. This addendum analyzes the impacts of Amending the Synapse School (school) Non-Conforming Use Permit (PLN2014-00295), specifically the proposal to increase student capacity from 260 to 310 students and reduce on-site parkin from 218 spaces to 60 spaces.

On August 9, 2017 the Planning Commission approved a non-conforming use permit to expand school operation into existing adjacent onsite buildings, increasing enrollment from 219 to 260 students, and reducing parking requirements from 144 spaces to 128 spaces. Additionally, the Synapse School Initial Study/Mitigated Negative Declaration was adopted. The non-conforming use permit established a trip cap of 275 trips and required the school to conduct bi-annual traffic counts to ensure compliance with the cap and to document any traffic impacts on Edison Way. The applicant was required to expand their shuttle program document ridership numbers and install a left turn refuge lane on Marsh Road to improve intersection operation.

In compliance with these mitigation measures/conditions of permit approval, the school installed the refuge lane on Marsh Road. The shuttle program currently has 10 shuttles serving 87 students in the morning and 5 shuttles serving 36 students in the afternoon. Two traffic counts were conducted in 2018 and 2019 as shown in Appendix A of the traffic report prepared by Hexagon traffic consultants. The traffic counts show that the school has remained in compliance with the Use Permit conditions by keeping the AM

peak hour trips to under the required 275 trips with an average of 269 trips in 2018 and 243 trips in 2019.

An updated traffic analysis was prepared by Hexagon Transportation Consultants dated April 21, 2021. The report analyzes the impacts of increasing student capacity and reducing parking. To accommodate the increase in student capacity, the traffic engineer recommended increasing the AM peak hour trip cap to provide a feasible target. Only under cumulative conditions would the added project trips cause in increase in vehicle delays at the intersection of 5th Avenue and Edison Way and 2nd Avenue and Middlefield Road. The traffic study recommends the continued expansion of the shuttle program, staggering pre-school start times, and continued staff monitors on site during drop-off and pick-up times. With the continued implementation of these mitigations, which were approved and implemented with the previous use permit conditions, the level of service impacts at key intersections would be reduced to less than 4 seconds, thus no significant adverse environmental impacts are anticipated.

Parking demand was also studied over the course of 3 days. Thirty (30) spaces would be reserved for pre-school students and a majority of the K-8 students would utilize the drop-off/pick-up area. The traffic study observed a maximum of 50 spaces utilized. To increase space for student activities and increase the drop-off efficiency, key parking spaces were eliminated from the plans. The decrease in parking provided is not anticipated to increase traffic impacts.

After reviewing and confirming the compliance of Synapse School with previously approved conditions and reviewing the updated traffic study (Hexagon, 2021), the County has determined that amendment of the use permit for the enrollment increase and parking reduction will not result in significant traffic impacts at the specified intersections of 5th Avenue and Edison Way and 2nd Avenue and Middlefield Road. Minor modification of “Mitigation Measures 3, 4 and 6” is required to reflect the changes to the project and the recommendations from the updated traffic study as follows:.

> **Mitigation Measure 3**: All ~~128~~ 60 on-site parking spaces shall be appropriately striped. Striping marks shall be maintained in a clear and visible manner so that they are easily recognizable to drivers.
>
> **Mitigation Measure 4:** Normal operation of the school shall not exceed ~~275~~ 298 morning peak hour trips. The morning peak hour is defined as the highest one-hour period between 7:00 a.m. - 9:00 a.m. during which the maximum traffic generated by the school occurs.
>
> The applicant shall retain a third-party traffic consultant to count the trip generation of the school, which would include counting the school driveways plus counting any school-related traffic that is dropping off students along Edison Way or any of its cross-streets. The third-party consultant will conduct the counts over three (3) weekdays (a Tuesday, Wednesday, and/or Thursday) in October and March of each school year, excluding scheduled school holidays. The trip count shall be the

average of the three weekday counts. Concurrent with the trip counts, the third-party traffic consultant shall conduct a queuing analysis for on-street queuing due to driveway back-up at the designated on-site pick-up/

drop-off points for the school. The data from the traffic counts shall be submitted to the County of San Mateo Traffic Services and the Current Planning Section of the County of San Mateo Planning and Building Department in a report for review and acceptance. The County may also choose to conduct its own monitoring if desired.

If the monitoring shows that the trip cap is exceeded the applicant shall have 30 days to prepare and submit a Transportation Demand Management (TDM) Program that incorporates measures to reduce the number of trips below the trip cap, and shall have an additional 30 days to implement the TDM Program to bring the site into compliance with the trip cap. Measures included in the TDM Program may include, but shall not be limited to, staggering start times, adding shuttle buses, initiating a carpooling program, and offering staff incentives to take alternative transportation. A subsequent monitoring will be conducted by the County 30 days following implementation of the TDM Program. If the subsequent monitoring indicates that the site still exceeds the trip cap, then the applicant may shall reduce student enrollment to bring the site into compliance with the trip cap. Non-compliance evidenced by the subsequent monitoring may also result in review of the use permit by the Planning Commission.

Mitigation Measure 6: The maximum student enrollment shall not exceed ~~260~~ 310 students. The applicant shall submit an annual report stating the total number of students and staff attending or working at the school prior to the beginning of each school year. Any increase in student enrollment beyond 260 310 students shall require an amendment to the Non-Conforming Use Permit and shall require an updated Traffic Impact Analysis.

The school will still be required to provide bi-annual traffic counts directly to the County for review. If the school is out of compliance, a Transportation Demand Management Program will be required to bring the site into compliance. If it is determined compliance is not feasible, a reduction in student capacity will be required.

The proposed use permit amendment would not alter the analysis or conclusions of any other portions of the adopted Mitigated Negative Declaration.

The County prepared this Addendum in accordance with Section 15164 of the CEQA Guidelines to evaluate whether the proposed changes to the project would result in any new or more severe significant impacts. Beyond the modifications to mitigation measures identified above, no other changes to the IS/MND are required. The proposed use permit amendment will not result in any new significant environmental effects or

substantial increase in the severity of the prior impacts identified in the IS/MND. Further, there are no changes in circumstances or new information that would otherwise warrant any subsequent environmental review under Public Resources Code Section 21166 or CEQA Guidelines Section 15162. The County has therefore determined that the IS/MND adequately addresses the potential environmental impacts of the proposed use permit amendment, and no further environmental review is necessary.

CEQA Compliance

According to Section 21166 of CEQA and Section 15162 of the State CEQA Guidelines, when an EIR has been certified or a Negative Declaration adopted for a project, no Subsequent EIR or Negative Declaration shall be prepared for the project unless the lead agency determines that one or more of the following conditions are met:

1. Substantial project changes are proposed that will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes would occur with respect to the circumstances under which the project is undertaken that require major revisions to the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance that was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified or the Negative Declaration that was adopted shows any of the following:
    a. The project will have one or more significant effects not discussed in the previous EIR or Negative Declaration;
    b. Significant effects previously examined will be substantially more severe than identified in the previous EIR;
    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponent declines to adopt the mitigation measures or alternatives; or
    d. Mitigation measures or alternatives that are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponent declines to adopt the mitigation measures or alternatives.

Preparation of an Addendum to a Negative Declaration is appropriate when none of the conditions specified in Section 15162 (above) are present and some minor technical changes to the previously certified Initial Study/Negative Declaration are necessary.

After evaluating the changes proposed pursuant to the use permit amendment, the County of San Mateo has determined that: 1) none of the conditions requiring preparation of a subsequent environmental document have occurred, and 2) the circumstances described in Section 15164 of the CEQA Guidelines allowing preparation of an addendum exist, and no further environmental review is required.

References:

Hexagon Transportation Consultants (2021). Synapse School Expansion Project II, Traffic Impact analysis.

COUNTY OF SAN MATEO, PLANNING AND BUILDING DEPARTMENT

NOTICE OF INTENT TO ADOPT
MITIGATED NEGATIVE DECLARATION

A notice, pursuant to the California Environmental Quality Act of 1970, as amended (Public Resources Code 21,000, et seq.), that the following project: *Synapse School Expansion*, when adopted and implemented, will not have a significant impact on the environment.

FILE NO.: PLN 2014-00295 MAR 30 2017

POSTING ONLY

BESZ DE LA VEGA

OWNER: Anthony and Johnny Zanette; 3355 Edison Partners

APPLICANT: Synapse School, Attention: Karen McCown

ASSESSOR'S PARCEL NOS.: 060-042-260 (3375, 3355, and 3345 Edison Way) and 060-042-240 (3425 Edison Way)

LOCATION: 3375, 3355, 3345, and 3425 Edison Way, North Fair Oaks (existing school operates at 3375 Edison Way)

PROJECT DESCRIPTION

The applicant is seeking a Non-Conforming Use Permit to expand the existing Synapse School facility located at 3375 Edison Way into the existing neighboring buildings at 3355, 3345, and 3425 Edison Way in the unincorporated area of North Fair Oaks. The proposed project includes the request for an off-street parking exception as part of the Non-Conforming Use Permit to reduce the number of on-site parking spaces from 144 spaces to 127 spaces. The "project site" is comprised of two parcels, Assessor's Parcel Numbers (APN) 060-042-260 and 060-042-240, totaling approximately 2.6 acres combined.

Synapse School is an existing private elementary and middle school serving grades kindergarten through 8th (K-8) located at 3375 Edison Way in North Fair Oaks. The existing school was established in 2010 under the County's determination that the school use was a compatible use in the applicable light industrial (M-1/Edison/NFO) Zoning District. The existing school operates in a 20,429 sq. ft. two-story building which is one of three freestanding buildings on parcel APN 060-042-260. Current student enrollment at the school is 220 students. The school year runs from August to June and operates during the weekday hours of 8:45 a.m. to 3:15 p.m. - 3:45 p.m.

The proposed project would allow Synapse School to expand into the 15,200 sq. ft. two-story building at 3355 Edison Way, formerly used as a child recreation center (UME), and a 18,036 sq. ft. two-story building at 3345 Edison Way, formerly used as a County storage facility, both located on the same parcel as the existing school building. The project would also allow expansion into a freestanding 17,338 sq. ft. two-story

building at 3425 Edison Way, located on the adjacent parcel to the east, APN 060-042-240. The building at 3425 Edison Way was formerly used for office space. All three additional buildings that Synapse School proposes to occupy are currently vacant. The entire project site is covered by impervious surface, except for a small fenced outdoor play yard along the rear property line, adjacent to building 3375 Edison Way. The proposed project will utilize all existing development covering the project site and does not propose to replace or expand any existing building footprints or paved areas. The expansion will increase the number of classrooms from 19 to 34 with remaining building square footages to be used for activities associated with the school, including administrative offices, lunch rooms, study areas, extended classroom/lab space, and multi-use common areas. Student capacity would be increased to a maximum of 260 students with the proposed expansion. Existing on-site parking consists of a main parking lot on APN 060-042-260 and two secondary parking lots running the length of the buildings at 3375 Edison Way and 3425 Edison Way. There are a total of 5 existing ingress/egress driveways onto the project site from Edison Way. Given the existing as-built conditions of the project site, there is minimal landscaping. However, trees exist along the perimeters of the project site. Exterior building façade changes are limited to upgrades necessary to comply with the current building codes.

The Synapse School will continue to serve grades K-8 with no additional grades proposed to be added by the project. The school proposes a modified daily schedule to mitigate for increased traffic generated by the school's expansion. See Section 16 of this Initial Study for discussion on traffic mitigation measures. The proposed daily schedule will involve staggering the daily start and end times by one hour based on grade levels with a group of grades starting at 7:45 a.m. and ending at 2:15 p.m. - 2:45 p.m., and a second group of grades remaining on the current daily schedule of 8:45 a.m. to 3:15 p.m. - 3:45 p.m. The two existing on-site pick-up/drop-off locations are intended to be maintained, one being at the entrance of the building at 3375 Edison Way and the other one at the rear side of the same building. Synapse School is proposing to utilize one of the secondary on-site parking lots, between the buildings at 3375 and 3425 Edison Way, as an additional outdoor recreation area for students after drop-off and before pick-up hours (as this secondary parking lot accommodates the rear pick-up/drop-off location previously mentioned).

FINDINGS AND BASIS FOR A NEGATIVE DECLARATION

The Current Planning Section has reviewed the initial study for the project and, based upon substantial evidence in the record, finds that:

1. The project will not adversely affect water or air quality or increase noise levels substantially.

2. The project will not have adverse impacts on the flora or fauna of the area.

3. The project will not degrade the aesthetic quality of the area.

4. The project will not have adverse impacts on traffic or land use.

5. In addition, the project will not:

   a. Create impacts which have the potential to degrade the quality of the environment.

   b. Create impacts which achieve short-term to the disadvantage of long-term environmental goals.

   c. Create impacts for a project which are individually limited, but cumulatively considerable.

   d. Create environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.

The County of San Mateo has, therefore, determined that the environmental impact of the project is insignificant.

MITIGATION MEASURES included in the project to avoid potentially significant effects:

Mitigation Measure 1: Pursuant to the Bay Area Air Quality Management District's CEQA Guidelines (May 2011), the following Air Quality Best Management Practices shall be implemented throughout the duration of construction-related activities on the project site:

a. Idling times shall be minimized either by shutting equipment or vehicles off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485, of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

b. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications.

c. Minimize the idling time of diesel powered construction equipment to two minutes.

Mitigation Measure 2: All staff members who drive to the school shall be required to park in the school's on-site parking lot.

Mitigation Measure 3: All 127 on-site parking spaces shall be appropriately striped. Striping marks shall be maintained in a clear and visible manner so that they are easily recognizable to drivers.

Mitigation Measure 4: Normal operation of the school shall not exceed 275 morning peak hour trips. The morning peak hour is defined as the highest one-hour period between 7:00 a.m. - 9:00 a.m. during which the maximum traffic generated by the school occurs.

The applicant shall retain a third-party traffic consultant to count the trip generation of the school, which would include counting the school driveways plus counting any school-related traffic that is dropping off students along Edison Way or any of its cross-streets. The third-party consultant will conduct the counts over three (3) weekdays

(a Tuesday, Wednesday, and/or Thursday) in October and March of each school year, excluding scheduled school holidays. The trip count shall be the average of the three weekday counts. Concurrent with the trip counts, the third-party traffic consultant shall conduct a queuing analysis for on-street queuing due to driveway back-up at the designated on-site pick-up/drop-off points for the school. The data from the traffic counts shall be submitted to the County of San Mateo Public Works Roadway Traffic Services Division and the Current Planning Section of the County of San Mateo Planning and Building Department in a report for review and acceptance. The County may also choose to conduct its own monitoring if desired.

If the monitoring shows that the trip cap is exceeded, then the applicant shall have 30 days to prepare and submit a Transportation Demand Management (TDM) Program that incorporates measures to reduce the number of trips below the trip cap, and shall have an additional 30 days to implement the TDM Program in order to bring the site into compliance with the trip cap. Measures included in the TDM Program may include, but shall not be limited to, staggering start times, adding shuttle buses, initiating a carpooling program, and offering staff incentives to take alternative transportation. A subsequent monitoring will be conducted by the County 30 days following implementation of the TDM Program. If the subsequent monitoring indicates that the site still exceeds the trip cap, then the applicant may need to resort to reducing student enrollment accordingly to bring the site into compliance with the trip cap. Non-compliance evidenced by the subsequent monitoring may also result in review of the use permit by the Planning Commission.

Mitigation Measure 5: The applicant shall provide, upon request by the County, shuttle bus logs for all shuttle buses serving the school. The shuttle logs shall show the number of students dropped off at the school site each day.

Mitigation Measure 6: The maximum student enrollment shall not exceed 260 students. The applicant shall submit an annual report stating the total number of students and staff attending or working at the school prior to the beginning of each school year. Any increase in student enrollment beyond 260 students shall require an amendment to the Non-Conforming Use Permit and shall require an updated Traffic Impact Analysis.

Mitigation Measure 7: The applicant shall install a left-turn refuge lane on Marsh Road, within the current roadway width, to improve the intersection operation.

Mitigation Measure 8: The school shall stagger the start and end times by one hour with 85 students starting one hour earlier during the 7:00 a.m. - 8:00 a.m. hour and ending during the 2:00 p.m. - 3:00 p.m. hour to reduce AM peak-hour trips.

Mitigation Measure 9: The school shall provide designated staff or parents to assist in the on-site management of drop-off and pick-up operations.

RESPONSIBLE AGENCY CONSULTATION

None

INITIAL STUDY

The San Mateo County Current Planning Section has reviewed the Environmental Evaluation of this project and has found that the probable environmental impacts are insignificant. A copy of the initial study is attached.

REVIEW PERIOD: March 30, 2017 through April 18, 2017

All comments regarding the correctness, completeness, or adequacy of this Negative Declaration must be received by the County Planning and Building Department, 455 County Center, Second Floor, Redwood City, no later than **5:00 p.m., April 18, 2017**.

CONTACT PERSON

Summer Burlison
Project Planner, 650/363-363-1815
sburlison@smcgov.org

Summer Burlison, Project Planner

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County of San Mateo
Planning and Building Department

INITIAL STUDY
ENVIRONMENTAL EVALUATION CHECKLIST
(To Be Completed by Planning Department)

1. **Project Title:** Synapse School Expansion

2. **County File Number:** PLN 2014-00295

3. **Lead Agency Name and Address:** County of San Mateo Planning and Building Department, 455 County Center, 2nd Floor, Redwood City, CA 94063

4. **Contact Person and Phone Number:** Summer Burlison, Project Planner; 650/363-1815 or sburlison@smcgov.org

5. **Project Location:** 3375, 3355, 3345, and 3425 Edison Way, North Fair Oaks (existing school operates at 3375 Edison Way)

6. **Assessor's Parcel Numbers and Sizes of Parcel:**

Assessor's Parcel Number	Parcel Size (approx.)	Address
060-042-260	1.98 acres	3375, 3355, 3345 Edison Way
060-042-240	0.64 acres	3425 Edison Way

7. **Project Sponsor's Name and Address:** Synapse School, Attention: Karen McCown, 3375 Edison Way, Redwood City, CA 94063

8. **General Plan Designation:** Industrial Mixed Use

9. **Zoning:** Light Industrial/Edison/North Fair Oaks (M-1/Edison/NFO)

10. **Description of the Project:** The applicant is seeking a Non-Conforming Use Permit to expand the existing Synapse School facility located at 3375 Edison Way into the existing neighboring buildings at 3355, 3345, and 3425 Edison Way in the unincorporated area of North Fair Oaks. The proposed project includes the request for an off-street parking exception as part of the Non-Conforming Use Permit to reduce the number of on-site parking spaces from 144 spaces to 127 spaces. The "project site" is comprised of two parcels, Assessor's Parcel Numbers (APN) 060-042-260 and 060-042-240, totaling approximately 2.6 acres combined. See Section 6 above for corresponding addresses.

    Synapse School is an existing private elementary and middle school serving grades kindergarten through 8th (K-8) located at 3375 Edison Way in North Fair Oaks. The existing school was established in 2010 under the County's determination that the school use was a compatible use in the applicable light industrial (M-1/Edison/NFO) Zoning District. The existing school operates in a 20,429 sq. ft. two-story building which is one of three freestanding buildings on parcel APN 060-042-260. Current student enrollment at the school is

220 students. The school year runs from August to June and operates during the weekday hours of 8:45 a.m. to 3:15 p.m. - 3:45 p.m.

The proposed project would allow Synapse School to expand into the 15,200 sq. ft. two-story building at 3355 Edison Way, formerly used as a child recreation center (UME), and the 18,036 sq. ft. two-story building at 3345 Edison Way, formerly used as a County storage facility, both located on the same parcel as the existing school building. The project would also allow expansion into a freestanding 17,338 sq. ft. two-story building at 3425 Edison Way, located on the adjacent parcel to the east, APN 060-042-240. The building at 3425 Edison Way was formerly used for office space. All three additional buildings that Synapse proposes to occupy are currently vacant. The entire project site is covered by impervious surface, except for a small fenced outdoor play yard along the rear property line, adjacent to the building at 3375 Edison Way. The proposed project will utilize all existing development covering the project site and does not propose to replace or expand any existing building footprints or paved areas. The expansion will increase the number of classrooms from 19 to 34 with remaining building square footages to be used for activities associated with the school, including administrative offices, lunch rooms, study areas, extended classroom/lab space, and multi-use common areas. Student capacity would be increased to a maximum of 260 students with the proposed expansion. Existing on-site parking consists of a main parking lot on APN 060-042-260 and two secondary parking lots running the length of buildings 3375 Edison Way and 3425 Edison Way. There are a total of 5 existing ingress/egress driveways onto the project site from Edison Way. Given the existing as-built conditions of the project site, there is minimal landscaping. However, trees exist along the perimeters of the project site. Exterior building façade changes are limited to upgrades necessary to comply with current building codes.

The Synapse School will continue to serve grades K-8 with no additional grades proposed to be added by the project. The school proposes a modified daily schedule to mitigate for increased traffic generated by the school's expansion. See Section 16 of this Initial Study for discussion on traffic mitigation measures. The proposed daily schedule will involve staggering the daily start and end times by one hour based on grade levels with a group of grades starting at 7:45 a.m. and ending at 2:15 p.m. - 2:45 p.m. and a second group of grades remaining on the current daily schedule of 8:45 a.m. to 3:15 p.m. - 3:45 p.m. The two existing on-site pick-up/drop-off locations are intended to be maintained, one being at the entrance of the building at 3375 Edison Way and the other at the rear side of the same building. Synapse School is proposing to utilize one of the secondary on-site parking lots, between the buildings at 3375 and 3425 Edison Way, as an additional outdoor recreation area for students after drop-off and before pick-up hours (as this secondary parking lot accommodates the rear pick-up/drop-off location previously mentioned).

11. **Surrounding Land Uses and Setting:** The project site is located within the densely developed urban community of North Fair Oaks. The project parcels are among a row of developed parcels zoned M-1/Edison/NFO (Light Industrial/Edison/North Fair Oaks). Surrounding uses include the Southern Pacific Railroad tracks to the adjacent north, with residential development beyond; the Riekes Center (for human enhancement) to the east, with office, research, and technology businesses beyond; a multi-tenant light industrial development to the west, with 5th Avenue and SportsHouse beyond; and single-family residences to the south, across Edison Way.

12. **Other Public Agencies Whose Approval is Required:** None

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or "Significant Unless Mitigated" as indicated by the checklist on the following pages.

	Aesthetics		Climate Change		Population/Housing
	Agricultural and Forest Resources	X	Hazards and Hazardous Materials		Public Services
X	Air Quality		Hydrology/Water Quality		Recreation
	Biological Resources	X	Land Use/Planning	X	Transportation/Traffic
	Cultural Resources		Mineral Resources	X	Utilities/Service Systems
	Geology/Soils		Noise		Mandatory Findings of Significance

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in 5. below, may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:

   a. Earlier Analysis Used. Identify and state where they are available for review.

b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c. Mitigation Measures. For effects that are "Less Than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources. Sources used or individuals contacted should be cited in the discussion.

1. **AESTHETICS**. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
1.a. Have a significant adverse effect on a scenic vista, views from existing residential areas, public lands, water bodies, or roads?				X
Discussion: The project site is located in the flat, densely developed urban community of North Fair Oaks. The project would utilize existing development on the project parcels with minimal changes to the exterior building facades and site. Therefore, the project would not result in any view changes from the nearby residential area on the south side of Edison Way or adjacent roadway. Furthermore, there are no scenic vistas, public lands, or water bodies within view of the project site. **Source:** Project Location; Project Plans.				
1.b. Significantly damage or destroy scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
Discussion: The project site is located in the flat, densely developed urban community of North Fair Oaks and proposes to utilize existing development on the project parcels. The area does not contain any scenic resources for which the project would have the potential to damage or destroy. **Source:** Project Location; Project Plans.				

1.c.	Significantly degrade the existing visual character or quality of the site and its surroundings, including significant change in topography or ground surface relief features, and/or development on a ridgeline?				X
Discussion: The project site is located in the densely developed urban community of North Fair Oaks. The project parcels consist of flat, developed parcels that are part of the existing built community environment. The project proposes to utilize existing buildings and site improvements with minimal exterior changes. Therefore, the project would not cause degradation of the existing visual character or quality of the site or surrounding area. **Source:** Project Location; Project Plans.					
1.d.	Create a new source of significant light or glare that would adversely affect day or nighttime views in the area?			X	
Discussion: The project proposes to increase student enrollment and staffing, which would generate an increase in traffic associated with the school use. However, the increase in traffic would be incremental and primarily limited to weekday daytime hours along public roadways. Therefore, the project is not expected to introduce significant new sources of light or glare to the area that would affect day or nighttime views. Furthermore, the project proposes to utilize existing development on the project parcels with minimal exterior changes, thus, not to generate any new sources of significant light or glare. **Source:** Project Location; Project Plans.					
1.e.	Be adjacent to a designated Scenic Highway or within a State or County Scenic Corridor?				X
Discussion: According to the County of San Mateo General Plan Scenic Corridors Map, the project site is not adjacent to a designated Scenic Highway or within a State or County Scenic Corridor. **Source:** County of San Mateo General Plan, Scenic Corridors Map.					
1.f.	If within a Design Review District, conflict with applicable General Plan or Zoning Ordinance provisions?				X
Discussion: The project site is not located within a Design Review District, pursuant to the County of San Mateo Zoning Map. **Source:** County of San Mateo, Zoning Map.					
1.g.	Visually intrude into an area having natural scenic qualities?				X
Discussion: The project area does not contain any natural scenic qualities due to the site being located in the flat, densely urbanized community of North Fair Oaks. **Source:** Project Location.					

2.	**AGRICULTURAL AND FOREST RESOURCES**. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forestland, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
2.a.	For lands outside the Coastal Zone, convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
Discussion: The project site is located in a light industrial zoned district of the densely developed urban area and therefore does not involve farmland. **Source:** Project Location; County of San Mateo, Zoning Map.					
2.b.	Conflict with existing zoning for agricultural use, an existing Open Space Easement, or a Williamson Act contract?				X
Discussion: The project site is located in a light industrial zoned district of the densely developed urban area. The project parcels are not encumbered by an open space easement or Williamson Act contract. **Source:** Project Location; County of San Mateo, Zoning Map.					
2.c.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forestland to non-forest use?				X
Discussion: The project site is located in a light industrial zoned district of the densely developed urban area. Therefore, the project would not result in the conversion of Farmland or forestland. **Source:** Project Location; County of San Mateo, Zoning Map.					

2.d.	For lands within the Coastal Zone, convert or divide lands identified as Class I or Class II Agriculture Soils and Class III Soils rated good or very good for artichokes or Brussels sprouts?				X
Discussion: The project site is not located within the coastal zone. **Source:** Project Location; County of San Mateo, Zoning Map.					
2.e.	Result in damage to soil capability or loss of agricultural land?				X
Discussion: The project site is located in a light industrial zoned district and would utilize existing development on the project parcels. The project is not expected to require any temporary or long-term ground disturbing activities that could damage soils. **Source:** Project Plans.					
2.f.	Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? *Note to reader: This question seeks to address the economic impact of converting forestland to a non-timber harvesting use.*				X
Discussion: The project site is located in a light industrial zoned district of the densely developed urban area. Therefore, the project would not conflict with any existing zoning for forestland, timberland, or timberland zoned Timberland Production. **Source:** Project Location; County of San Mateo, Zoning Map.					

3.	**AIR QUALITY**. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
3.a.	Conflict with or obstruct implementation of the applicable air quality plan?			X	

Discussion: The Bay Area 2010 Clean Air Plan (CAP), developed by the Bay Area Air Quality Management District (BAAQMD), is the applicable air quality plan for San Mateo County. The CAP was created to improve Bay Area air quality and to protect public health and the climate by providing a control strategy for reducing ozone, particulate matter, air toxics, and greenhouse gases and established emission control measures to be adopted during between 2010 and 2020.

The project will not conflict with or obstruct the implementation of the BAAQMD's 2010 CAP as the project proposes minimal exterior physical or operational changes. Once completed, the expanded use will generate an increase in traffic; however, the California Air Resources Board (CARB) provides regulation over motor vehicle emissions in the State of California to ensure that operating emissions are minimized in the effort toward reaching attainment for Ozone, among other goals.

Source: Bay Area Air Quality Management District 2010 Clean Air Plan; Project Plans; California Air Resources Board.

3.b.	Violate any air quality standard or contribute significantly to an existing or projected air quality violation?		X		

Discussion: While the project involves minimal exterior building changes and no other site grading/work that would generate dust, the existing buildings will require interior renovation work to convert the building spaces from office, storage, and child recreation area (former uses) to uses associated with the proposed school use areas. During implementation of the project, air emissions will be generated from construction equipment and construction worker vehicles; however, use of construction equipment will be temporary and limited primarily to indoor use.

The BAAQMD has established thresholds of significance for construction emissions. As defined in the BAAQMD's 1999[1] CEQA Guidelines, the BAAQMD does not require quantification of construction emissions due to the number of variables that can impact the calculation of construction emissions. Instead, the BAAQMD emphasizes implementation of all feasible control measures to minimize emissions from construction activities. The BAAQMD provides a list of construction-related control measures that they have determined to significantly reduce construction-related air emissions to a less than significant level. These applicable control measures have been combined into Mitigation Measure 1 below:

Mitigation Measure 1: Pursuant to the Bay Area Air Quality Management District's CEQA Guidelines (May 2011), the following Air Quality Best Management Practices shall be implemented

[1] Thresholds of Significance are from the BAAQMD's 1999 CEQA Guidelines since the BAAQMD's last adopted 2010 Thresholds of Significance are currently under appeal by the BAAQMD with the California Supreme Court related to the BAAQMD's failure to comply with CEQA when adopting the Thresholds. Until this appeal is decided upon, the BAAQMD identifies that lead agencies may continue to rely on the Air District's 1999 Thresholds of Significance and make determinations regarding the significance of an individual project's air quality impacts based on the substantial evidence in the record for that project.

throughout the duration of construction-related activities on the project site:

a. Idling times shall be minimized either by shutting equipment or vehicles off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485, of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

b. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications.

c. Minimize the idling time of diesel powered construction equipment to two minutes.

Furthermore, continued operation and expansion of the school would not result in the violation of an air quality standard. The project proposes to utilize 50,574 sq. ft. of former office, storage, and child recreation space (divided up between three existing buildings) to expand the current school facility that currently operates in a 20,429 sq. ft. building. While the expanded school use will generate an increase in daily traffic (as mentioned in Section 3.a. above), vehicle emissions in California are regulated by the California Air Resources Board. Therefore, the project would not generate a significant increase in operational emission levels that would not violate any air quality standard.

Source: BAAQMD CEQA Guidelines, December 1999; BAAQMD CEQA Guidelines, May 2011; Project Plans; California Air Resources Board.

3.c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?		X		

Discussion: The Bay Area Air Basin is designated as non-attainment for Ozone, Particulate Matter (PM_{10}), and Particulate Matter - Fine ($PM_{2.5}$)[2], according to the BAAQMD. Therefore, any increase in these criteria pollutants is significant. Implementation of the project will generate temporary increases in these criteria pollutants due to construction vehicle emissions and use of construction equipment for renovation work proposed for the existing buildings. However, planning such increases would be temporary and localized. Mitigation Measure 1 in Section 3.b. will minimize increases in non-attainment criteria pollutants generated from construction-related emissions to a less than significant level.

Source: BAAQMD Air Quality Standards and Attainment Status, URL (2017); Project Plans.

3.d.	Expose sensitive receptors to significant pollutant concentrations, as defined by BAAQMD?		X		

[2] On January 9, 2013, the Environmental Protection Agency (EPA) issued a final rule determining that the Bay Area attains the 24-hour PM2.5 national standard. However, despite this action by the EPA, the Bay Area will continue to be designated as "non-attainment" until the Air District submits a "re-designation request" and a "maintenance plan" to the EPA, and the EPA approves the proposed re-designation.

Discussion: According to the BAAQMD, sensitive receptors are defined as facilities and land uses that include members of the population that are particularly sensitive to the effects of air pollutants (i.e., children, the elderly, and people with illnesses), such as schools, hospitals, and residential areas. By definition, the students attending the school are considered sensitive receptors, as are the residents in the neighborhood. However, construction-related activities associated with renovating the existing buildings for school use will occur during the summer months while school is out of session and will be primarily limited to interior work within the buildings. Furthermore, see staff's discussion in Section 3.b. above regarding increased construction-related traffic and the proposed mitigation to reduce construction-related air emissions to a less than significant level. **Source:** BAAQMD CEQA Guidelines, May 2011; Project Plans.				
3.e.	Create objectionable odors affecting a significant number of people?				X
Discussion: Implementation of the project requires the interior renovation of existing buildings for the proposed (expanded) school use with minimal exterior work to generate objectionable odors. Furthermore, the long-term operation of the school will not generate any odors that could affect significant numbers of people in the area. **Source:** Project Plans; Project Location.					
3.f.	Generate pollutants (hydrocarbon, thermal odor, dust or smoke particulates, radiation, etc.) that will violate existing standards of air quality on-site or in the surrounding area?		X		
Discussion: See staff's discussion in Section 3.b. and 3.c. above. **Source:** See referenced sources in Section 3.b. and 3.c. above.					

4.	**BIOLOGICAL RESOURCES**. Would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
4.a.	Have a significant adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X

Discussion: The project site is in a light industrial zoned district of the densely developed urban community of North Fair Oaks. The project parcels are surrounded by light industrial and residential development. Given the existing built-environment of the North Fair Oaks area and upon review of the County's General Plan Sensitive Habitats Map, there are no sensitive habitats on the project site or in the near vicinity. Furthermore, the project proposes to utilize the existing built conditions of the project parcels and will not modify the existing development footprints.

Source: County of San Mateo General Plan, Sensitive Habitats Map; Project Location.

4.b.	Have a significant adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X

Discussion: There are no riparian habitats or other sensitive natural communities located on the project site. See staff's discussion in Section 4.a. above.

Source: County of San Mateo General Plan, Sensitive Habitats Map; Project Location.

4.c.	Have a significant adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X

Discussion: There are no wetlands located on the project site or within the project vicinity as the project site is located in a densely urbanized community and the project parcels are entirely built-out.

Source: Project Location.

4.d.	Interfere significantly with the movement of any native resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X

Discussion: The project site is located in a densely developed urban community. Given the existing built-environment of the surrounding area, the project would not interfere with the movement of any fish or wildlife species or corridors, nor is the project in the vicinity of any wildlife nursery sites. Furthermore, see staff's discussion in Section 4.a. above.

Source: Project Location.

4.e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (including the County Heritage and Significant Tree Ordinances)?				X
Discussion: The project site is located in a densely urbanized area and contains no biological resources as the entire project parcels contain development. The project proposes to utilize existing development on the project parcels and does not propose the removal of any trees. **Source:** Project Location; Project Plans.					
4.f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or State habitat conservation plan?				X
Discussion: There are no adopted Habitat Conservation Plans, Natural Conservation Community Plans, or other approved local, regional, or State habitat conservation plans for the project site or nearby vicinity. **Source:** California Department of Fish and Wildlife, Habitat Conservation Planning, California Regional Conservation Plans Map.					
4.g.	Be located inside or within 200 feet of a marine or wildlife reserve?				X
Discussion: The project is not located inside or within 200 feet of a marine or wildlife reserve. **Source:** U.S. Fish and Wildlife Services, National Wildlife Refuge System Locator.					
4.h.	Result in loss of oak woodlands or other non-timber woodlands?				X
Discussion: The project site does not support oak woodlands or other non-timber woodlands as the project site is located in a densely developed urban community. **Source:** Project Location; Project Plans.					

5. CULTURAL RESOURCES. Would the project:				
	Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
5.a. Cause a significant adverse change in the significance of a historical resource as defined in CEQA Section 15064.5?				X
Discussion: The project will not cause an adverse change in any historical resource as the project proposes to utilize existing on-site development that was constructed within the last 25 years. Furthermore, the project sites and existing buildings are not listed on any local or state historical registers. **Source:** Project Location; Project Plans; San Mateo County General Plan, Overview Background and Issues, Chapter 5: Historical and Archaeological Resources; California State Parks Office of Historic Preservation.				
5.b. Cause a significant adverse change in the significance of an archaeological resource pursuant to CEQA Section 15064.5?				X
Discussion: The project will not cause an adverse change in any archaeological resource as the project proposes to utilize existing on-site development that was constructed within the last 25 years. Furthermore, no new ground disturbance is necessary to implement or operate the proposed project. **Source:** Project Location; Project Plans; San Mateo County General Plan, Overview Background and Issues, Chapter 5: Historical and Archaeological Resources.				
5.c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
Discussion: The project parcels are entirely developed urban lots in a densely urbanized area. The project does not include any ground disturbing activities that would have the potential to destroy a paleontological resource or site or unique geological feature. **Source:** Project Location; Project Plans.				
5.d. Disturb any human remains, including those interred outside of formal cemeteries?				X
Discussion: The project parcels are entirely developed urban lots in a densely urbanized area. The project does not include any ground disturbing activities that would have the potential to uncover any human remains. **Source:** Project Location; Project Plans.				

6.	**GEOLOGY AND SOILS**. Would the project:				
		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
6.a.	Expose people or structures to potential significant adverse effects, including the risk of loss, injury, or death involving the following, or create a situation that results in:				
	i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other significant evidence of a known fault? *Note: Refer to Division of Mines and Geology Special Publication 42 and the County Geotechnical Hazards Synthesis Map.*			X	

Discussion: The San Andreas Fault system is the nearest significant fault to the project site. An earthquake on this fault system would have the potential to generate intense seismic shaking in the entire San Francisco Bay region including at the project site. According to review of the State Division of Mines and Geology Special Studies Zones Map, the project site is not located in or near a mapped Alquist-Priolo Earthquake Fault Zone or special study area where fault rupture is likely to occur. The project proposes to continue use of a K-8 school and allow for expansion of the school into three (3) existing neighboring buildings that were formerly used for office, storage, and child recreation. Since the project is considered to change the occupancy classification of the existing buildings, seismic upgrades will be required in compliance with the California Building Code. Furthermore, the project itself is not expected to generate rupture of an earthquake fault. Therefore, no further mitigation is required beyond compliance with the California Building Code.

Source: State of California, Division of Mines and Geology, Special Studies Zones Map, Palo Alto Quadrangle, July 1, 1974; Project Plans.

ii. Strong seismic ground shaking?			X	

Discussion: See staff's discussion in Section 6.a.i. above.

Source: See referenced sources in Section 6.a.i. above.

iii. Seismic-related ground failure, including liquefaction and differential settling?			X	

Discussion: According to a geotechnical report of the project site prepared by BAGG Engineers, the project site is located in a liquefaction hazard zone where the effects of liquefaction could result in up to 1.2 inches of ground settlement. Furthermore, BAGG Engineers estimates differential settlements to be approximately 2/3 the total settlement between columns during a design level seismic event. That being said, the geotechnical report identifies that the structural engineer should

confirm that the existing foundations and building structures can accommodate such movements. All proposed renovation work is required to obtain a building permit. The building permit plan check process will ensure that the structural engineer has accounted for the identified differential settlement associated with the project site. **Source:** Geotechnical Engineering Investigation, BAGG Engineers, April 2016.				
iv. Landslides?				X
Discussion: The project parcels have been designated as areas with Landslide Susceptibility I based on information gathered from the U.S. Geological Survey. Such areas have the lowest susceptibility to soil instability and a decreased potential for occurrences of landslides. Furthermore, the project parcels are in a flat, urbanized area where landslides are not a concern. **Source:** United States Geological Survey, Landslide Susceptibility Map (for San Mateo County); Project Location.				
v. Coastal cliff/bluff instability or erosion? *Note to reader: This question is looking at instability under current conditions. Future, potential instability is looked at in Section 7 (Climate Change).*				X
Discussion: The project site is not located on a coastal cliff or bluff. **Source:** Project Location.				
6.b. Result in significant soil erosion or the loss of topsoil?				X
Discussion: The project proposes to utilize existing development on the project parcels. No ground disturbing construction-related activities are proposed that would result in soil erosion or the loss of topsoil. **Source:** Project Plans.				
6.c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, severe erosion, liquefaction or collapse?			X	
Discussion: Despite the project parcels being in a flat, developed area, the project site consists of expansive soils and is in a liquefaction hazard zone making the project site subject to differential settlement as discussed in Section 6.a.iii. All proposed renovation work is required to obtain a building permit. The building permit plan check process will ensure that the existing buildings are in compliance with the recommendations of the applicable geotechnical report and the California Building Codes relative to expansive soils and liquefaction such that the project is not impacted by, or result in impacts from, expansive soils or liquefaction. **Source:** Geotechnical Engineering Investigation, BAGG Engineers, April 2016.				

6.d.	Be located on expansive soil, as noted in the 2010 California Building Code, creating significant risks to life or property?			X	

Discussion: The County of San Mateo is in a geological area that contains expansive soils such as clay loam and alluvial fans. Particularly, the project site consists of clay and sandy soils. All proposed renovation work is required to obtain a building permit. The building permit plan check process will ensure that the existing buildings are modified, as necessary, to resist the effects of expansive soils.

Source: Geotechnical Engineering Investigation, BAGG Engineers, April 2016.

6.e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X

Discussion: The project parcels will continue to be served by the Fair Oaks Sewer Maintenance District, managed by the County of San Mateo Department of Public Works (DPW). Therefore, the project does not require the use of a septic system or alternative wastewater disposal system. Furthermore, the County Department of Public Works has provided conditional approval of the project.

Source: Project Location; County of San Mateo Department of Public Works, Fair Oaks Sewer Maintenance District.

7.	**CLIMATE CHANGE**. Would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
7.a.	Generate greenhouse gas (GHG) emissions (including methane), either directly or indirectly, that may have a significant impact on the environment?			X	

Discussion: The project will generate a temporary increase in GHG emissions from construction vehicles and equipment. However, any such emissions would be limited to a short duration of time during construction. Construction vehicles are subject to California Air Resources Board emission standards, and the construction equipment will primarily be used indoors for the renovation of existing buildings. Furthermore, Mitigation Measure 1 in Section 3.b. will help to further minimize any temporary increases in GHG emissions during construction. Furthermore, as discussed in Section 3.a. and 3.b. above, operation of the school will generate an increase in traffic; however, the California Air Resources Board (CARB) provides regulation over motor vehicle emissions in the State of California to ensure that operating emissions are minimized.

Source: Bay Area Air Quality Management District 2010 Clean Air Plan; Project Plans; California Air Resources Board.

7.b.	Conflict with an applicable plan (including a local climate action plan), policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X

Discussion: The County of San Mateo's adopted Energy Efficiency Climate Action Plan (EECAP) provides strategies for reducing GHG emissions to eleven areas of focus including Residential Energy Efficiency, Commercial and Industrial Energy Efficiency, Green Building Ordinance, Renewable Energy, Transportation, Alternative Fuels, Waste Diversion, Water Efficiency, Sustainable Agriculture Practices, Off-Road Technology, and Sequestration. Of these categories, the project includes reuse of the existing buildings by renovating them from their former uses as office, storage, and child recreation to uses in support of the school's expansion (i.e., classrooms, lab space, administrative offices). Building renovations will require to be in compliance with mandatory California Green Building Standards and California Energy Codes. Additionally, the project proposes to continue and expand the use of school shuttles for students and staff to reduce vehicle miles traveled and to continue encouraging carpooling. The reduced number of on-site parking spaces (127) relative to the number of parking spaces required (144), pursuant to the County's Parking Regulations (*Chapter 3 of the County's Zoning Regulations*), and the limited availability of street parking along Edison Way during business hours indirectly encourage students and staff to use alternative modes of transportation, such as school shuttles or carpool. Therefore, the project will not conflict with applicable plans adopted for the purpose of reducing GHG emissions.

Source: County of San Mateo Energy Efficiency Climate Action Plan; Project Plans.

7.c.	Result in the loss of forestland or conversion of forestland to non-forest use, such that it would release significant amounts of GHG emissions, or significantly reduce GHG sequestering?				X

Discussion: The project site is located in a light industrial zoned district of the densely developed North Fair Oaks community and therefore will not have any impact on forestlands.

Source: Project Location.

7.d.	Expose new or existing structures and/or infrastructure (e.g., leach fields) to accelerated coastal cliff/bluff erosion due to rising sea levels?				X

Discussion: The project site is not located near a coastal cliff or bluff. Furthermore, based on bayshore inundation maps prepared as part of the County of San Mateo Sea Change Program that considers the potential for both shoreline overtopping and sea level rise, the project site will not be affected by, or have any impact on, sea level rise.

Source: Project Location; County of San Mateo Sea Change, Bayshore Inundation Maps.

7.e.	Expose people or structures to a significant risk of loss, injury or death involving sea level rise?				X
Discussion: See staff's discussion in Section 7.d. above. **Source:** See referenced sources in Section 7.d. above.					
7.f.	Place structures within an anticipated 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
Discussion: The project site is not located within a 100-year flood hazard area. **Source:** Federal Emergency Management Agency, Flood Insurance Rate Map, Community Panel 06081C0302E, effective October 16, 2012.					
7.g.	Place within an anticipated 100-year flood hazard area structures that would impede or redirect flood flows?				X
Discussion: See staff's discussion in Section 7.f. above. **Source:** See referenced source in Section 7.f. above.					

8.	**HAZARDS AND HAZARDOUS MATERIALS**. Would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
8.a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (e.g., pesticides, herbicides, other toxic substances, or radioactive material)?			X	
Discussion: The project proposes to renovate existing buildings that were formerly used for office, storage, and child recreation to accommodate expansion of the existing school use located at 3375 Edison Way. The buildings that will be utilized for the school's expansion were constructed in the early 1990s, when friable asbestos products and lead-based paint were not commonly used in construction. Therefore, the proposed building renovations are not expected to involve the transport, use, or dispose of hazardous materials. It is expected that the school would use and store cleaning and maintenance supplies for the facilities; however, any such supplies would be limited in quantity and are expected to be commonly used supplies for general cleaning and maintenance purposes. Therefore, the project's long-term operation would not result in the introduction of significantly hazardous materials.				

Source: Project Plans; County of San Mateo Permit Records.					
8.b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X
Discussion: See staff's discussion in Section 8.a. above and Section 8.d. below. **Source:** See referenced sources in Section 8.a. above and Section 8.d. below.					
8.c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
Discussion: Despite the project site's existing and proposed use as a school, the school will not emit any hazardous emissions. See staff's discussion in Section 8.a. above. **Source:** Project Plans.					
8.d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
Discussion: The project site is not considered a hazardous material site, according to the latest Hazardous Waste and Substance Site List posted by the California Department of Toxic Substances Control (mandated by Government Code Section 65962.5). Furthermore, according to review of the State Water Resources Control Board GeoTracker which tracks regulatory data and databases for Leaking Underground Storage Tanks (LUST) cleanup sites, Cleanup Program Sites (formerly known as Spills, Leaks, Investigations, and Cleanups sites), and Land Disposal Sites among other types of potentially hazard sites, the nearest open cleanup site (for soil and groundwater contamination) is over 1,000 ft. to the east of the project parcels. Therefore, the project will not be located on a hazardous materials site. **Source:** California Department of Toxic Substances Control, Hazardous Waste and Substances Site List; State Water Resources Control Board, GeoTracker.					
8.e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area?				X
Discussion: The project site is not located within an airport land use plan or within 2 miles of a public airport. **Source:** Project Location.					

8.f.	For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area?				X
Discussion: The project site is not located within the vicinity of any known private airstrip. **Source:** Project Location.					
8.g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		X		
Discussion: The project consists of the continued operation of an existing K-8 private school, along with the school's expansion into additional existing buildings on private property. The project does not propose any changes to the footprint of the existing development. While the proposed school expansion will result in an increase in traffic as student enrollment and staffing increases, a traffic impact analysis for the project has been completed and mitigation measures recommended to reduce any traffic-related impacts to a less than significant level for the area, thus, reducing any physical interferences with emergency response or evacuation plans for the area to a less than significant level. See Section 16 for discussion of traffic impacts and recommended mitigation measures. **Source:** Project Plans; Final Traffic Impact Analysis for Synapse School Expansion, prepared by Hexagon Transportation Consultants, Inc., dated January 19, 2016.					
8.h.	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X
Discussion: The project site is in the densely urbanized area of North Fair Oaks and therefore not in close proximity to any wildlands. **Source:** Project Location.					
8.i.	Place housing within an existing 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
Discussion: The project area is not located within a 100-year flood hazard area and does not propose any housing. **Source:** County of San Mateo General Plan, Natural Hazards Map; Federal Emergency Management Agency, Flood Insurance Rate Map, Community Panel 06081C0302E, effective October 16, 2012.					

8.j.	Place within an existing 100-year flood hazard area structures that would impede or redirect flood flows?				X
Discussion: See staff's discussion in Section 8.i. above. **Source:** See referenced sources in Section 8.i. above.					
8.k.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
Discussion: According to FEMA flood maps and the County's General Plan Natural Hazards Map, the project parcels are not within an area that could be impacted by flooding as a result of the failure of a dam or levee. **Source:** Project Location; County of San Mateo General Plan, Natural Hazards Map; Federal Emergency Management Agency, Flood Insurance Rate Map, Community Panel 06081C0302E, effective October 16, 2012.					
8.l.	Inundation by seiche, tsunami, or mudflow?				X
Discussion: According to the San Mateo County General Plan Natural Hazards Map, the project parcels are not located in a tsunami or seiche inundation area. Furthermore, the project parcels are located in a flat, densely developed urban area where mudflows or landslides are not considered hazards of concern. **Source:** San Mateo County General Plan, Natural Hazards Map; Project Location.					

9.	**HYDROLOGY AND WATER QUALITY**. Would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
9.a.	Violate any water quality standards or waste discharge requirements (consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical stormwater pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash))?				X

Discussion: The project does not introduce any new impervious surface areas to the project parcels. Therefore, the project would not violate any water quality standards or discharge requirements of the County's Drainage Policy or Municipal Regional Stormwater Permit as there will be no changes to the existing footprints of development or to any existing drainage patterns or facilities. **Source:** Project Plans; County of San Mateo Drainage Policy; County of San Mateo Municipal Regional Stormwater Permit.					
9.b.	Significantly deplete groundwater supplies or interfere significantly with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				X
Discussion: The project parcels are served by public water service from the California Water Service Company. The project proposes no changes to the existing developed parcels that would have any impact on groundwater. **Source:** Project Plans; Project Location.					
9.c.	Significantly alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in significant erosion or siltation on- or off-site?				X
Discussion: The project proposes no alterations to the existing drainage pattern of the site or area as the existing project parcels are completely covered with impervious surface and no changes to the built site conditions are proposed. **Source:** Project Plans.					
9.d.	Significantly alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or significantly increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?				X
Discussion: See staff's discussion in Section 9.c. above. **Source:** See referenced source in Section 9.c. above.					

9.e.	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide significant additional sources of polluted runoff?				X
Discussion: The project proposes no changes to the existing development conditions of the site or to the existing drainage patterns. **Source:** Project Plans.					
9.f.	Significantly degrade surface or ground-water water quality?				X
Discussion: The project proposed no changes to existing drainage patterns on the project site or in the vicinity. Furthermore, the project will utilize existing development which will continue to be served by the California Water Service Company. Therefore, the project will not have any impact on groundwater water quality. **Source:** Project Plans.					
9.g.	Result in increased impervious surfaces and associated increased runoff?				X
Discussion: See staff's discussions in Section 9.a. and 9.c. above. **Source:** See referenced sources in Section 9.a. and 9.c. above.					

10.	**LAND USE AND PLANNING**. Would the project:				
		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
10.a.	Physically divide an established community?				X
Discussion: The project site is located along a row of developed parcels zoned light industrial where existing uses include office, research, warehouse, indoor sports, and student education and enrichment. Furthermore, the project proposes to utilize existing development, part of which is already being used as a school facility. Therefore, the project will not physically divide an established community. **Source:** Project Plans; Project Location.					

10.b.	Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?		X		

Discussion: According to the North Fair Oaks (NFO) Community Plan, the land use designation for the project parcels is Industrial Mixed Use which allows a medium to high density of land uses, primarily focused on industrial uses while allowing a mix of secondary commercial, public, and institutional uses (such as schools/training and sports facilities). Zoning for the project parcels is Light Industrial/Edison/North Fair Oaks (M-1/Edison/NFO) which currently does not allow for primary or middle school uses. Since adoption of the NFO Community Plan in 2011, the County has been completing a phased rezoning of the community's neighborhoods in order to provide consistency between the more recent land use designations identified in the NFO Community Plan and the older zoning designations. The Edison Way corridor zoning update, which includes the project parcels, is expected to commence in 2018 and is expected to accommodate school uses. Until such time, the existing Synapse School facility is considered a non-conforming use[3] as it was permitted by the County to locate at its current location, 3375 Edison Way, in 2010 under a determination that the school use was compatible with the land uses allowed in the M-1/Edison/NFO Zoning District.

Pursuant to Chapter 4 of the County Zoning Regulations pertaining to Zoning Non-Conformities, the expansion of a non-conforming use is subject to a non-conforming use permit. In order to grant a non-conforming use permit, the applicable decision making body (i.e., Planning Commission) must make the finding that the establishment, maintenance and/or conducting of the use will not, under the circumstances of the particular case, result in a significant adverse impact to coastal resources, or be detrimental to the public welfare or injurious to property or improvements in said neighborhood. The proposed project includes the request for a non-conforming use permit. Therefore, no mitigation is required.

The project also includes the request for a reduction in off-street parking spaces as part of the non-conforming use permit. Based on the application of off-street parking standards stipulated in Chapter 3 of the County Zoning Regulations for the four buildings that will be used to accommodate the expanded school, the number of required off-street parking spaces is 144. The existing developed project parcels provide 127 off-street parking spaces, thereby generating a deficiency of 17 parking spaces. After implementation of the proposed project, the school will remain K-8, thus not generating any student demand for parking spaces. Furthermore, at full student capacity (260 students), the school expects to have a total staff of 58, including 47 full-time staff and 11 part-time staff. A Memorandum to the Traffic Impact Analysis, dated July 22, 2016 and prepared by Hexagon Transportation Consultants, Inc., estimated that approximately 10 staff members would participate in the school shuttle program, thus, potentially reducing staff's parking demand. Nonetheless, at full staff, a total of 58 of the 127 provided parking spaces would be filled; thus, leaving 69 parking spaces available on-site for visitors or other uses. Given that the school serves young children, K-8, parking demand temporarily increases during morning drop-off and afternoon pick-up. Otherwise, the school is not expected to generate much parking demand beyond staff and occasional visitors (including parents). Therefore, Synapse is proposing to use the parking area between the 3425 Edison and 3375 Edison buildings for outdoor activities after morning drop-off and before afternoon pick-up. In order to ensure that sufficient parking is provided to serve the school,

[3] A non-conforming use, pursuant to Section 6132(14) of the County of San Mateo Zoning Regulations, is defined as any legal land use that does not conform with the uses permitted by the zoning regulations currently in effect.

the following mitigation measures are proposed: **Mitigation Measure 2:** All staff members who drive to the school shall be required to park in the school's on-site parking lot. **Mitigation Measure 3:** All 127 on-site parking spaces shall be appropriately striped. Striping marks shall be maintained in a clear and visible manner so that they are easily recognizable to drivers. **Source:** North Fair Oaks Community Plan; County of San Mateo Zoning Regulations and Map; County of San Mateo Permit Records; Memorandum to the Traffic Impact Analysis, prepared by Hexagon Transportation Consultants, Inc., dated July 22, 2016; Project Plans.				
10.c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?				X
Discussion: The project would not conflict with any habitat conservation plan or natural community conservation plan. **Source:** California Department of Fish and Wildlife, Habitat Conservation Planning, California Regional Conservation Plans Map.					
10.d.	Result in the congregating of more than 50 people on a regular basis?		X		
Discussion: The project will result in the congregation of more than 50 people on a regular basis during the school year (August through June) as the project is proposed to increase student enrollment to 260; current student enrollment is approximately 220. The land use designation for the project parcels is Industrial Mixed Use which allows a medium to high density of land uses, including institutional uses such as schools/training and sports facilities. The intensity of use for the K-8 school has the potential to generate parking and traffic impacts to the area. See staff's discussion in Section 10.b. and Section 16. which includes further discussion on the potential impacts and the recommended mitigation measures related to increased parking and traffic associated with the project. **Source:** Project Plans; See referenced sources in Section 10.b. and Section 16.				
10.e.	Result in the introduction of activities not currently found within the community?				X
Discussion: The project involves an expansion of the existing K-8 school facility located at 3375 Edison Way into the neighboring buildings at 3355, 3345, and 3425 Edison Way. Therefore, the project does not introduce activities not currently found within the community. **Source:** Project Plans.					
10.f.	Serve to encourage off-site development of presently undeveloped areas or increase development intensity of already developed areas (examples include the introduction of new or expanded public utilities, new industry, commercial facilities or recreation activities)?				X

Discussion: The project involves the expansion of an existing private K-8 school. The school is located in a densely urbanized community and serves a relatively small population of the overall regional area. The project includes converting existing buildings formerly used for storage, office, and child recreation into additional school facility uses. Thus, the project will not encourage off-site development of any undeveloped areas or increase development intensities of already developed areas. **Source:** Project Location; Project Plans.				
10.g. Create a significant new demand for housing?				X
Discussion: The project would not create a significant new demand for housing as the project involves the expansion of a private K-8 school that serves a relatively small population of the overall existing regional area. **Source:** Project Location; Project Plans.				

11. MINERAL RESOURCES. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
11.a. Result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State?				X
Discussion: The project parcel does not contain any known mineral resources, according to the Mineral Resources Map of the County's General Plan. **Source:** San Mateo County General Plan, Mineral Resources Map.				
11.b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X
Discussion: See staff's discussion in Section 11.a. above. **Source:** See referenced source in Section 11.a. above.				

12. NOISE. Would the project result in:				
	Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
12.a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	

Discussion: The project will generate short-term noise associated with construction-related activities; however, such noises will be temporary, where volume and hours are regulated by Section 4.88.360 (*Exemptions*) of the County Noise Ordinance.

The County's Noise Ordinance prohibits the generation of exterior noise levels at receiving residences from exceeding 55 dBA in any cumulative 30-minute period of any daytime hour (7:00 a.m. to 10:00 p.m.) to 70 dBA in any 1-minute period of any daytime hour. Additionally, the project parcels are located in a designated Noise Impact Area, defined as those areas experiencing noise levels of 60 Community Noise Equivalent Level (CNEL) or greater, according to the County of San Mateo General Plan, Community Noise Map.

The majority of school activities will continue to be conducted indoors and therefore, not result in noise levels in excess of any established noise standards. The school does provide on-site outdoor recreational areas; however, such existing areas are located at the rear of the project site, adjacent to the railroad tracks, or within the confines of areas gated from the Edison Way roadway and residential properties on the opposite side of Edison Way. Existing outdoor recreation areas will continue to be utilized; however, given the nature of the school use and schedule, outdoor activities that could generate increased noise levels in the area would be limited to short periods of time during weekday daytime hours when residents are typically at work. Additionally, the adjacent Southern Pacific Railroad tracks (to the north) and Edison Way (to the south) provide buffers to the residential neighborhoods beyond, while institutional/industrial land uses are located on the adjacent east and west sides of the project parcels. Therefore, the project is not expected to generate noise or expose persons to noise in excess of any established standards.

Source: County of San Mateo General Plan, Community Noise Map; County of San Mateo Noise Ordinance; Project Plans.

12.b. Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?			X	

Discussion: Exterior construction work associated with the implementation of the project will be limited as the project proposes to utilize existing buildings and site improvements. However, construction activities may generate ground-borne vibration or noise levels, but any such vibration or levels would be temporary and localized to the project site so as to not result in a significant impact to persons or the area.

Source: Project Plans.

12.c. A significant permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
Discussion: The project is not expected to cause a significant permanent increase in ambient noise levels in the area as a majority of the school activities occurs indoors and the project proposes a minimal increase in student capacity (40 students) from the school's current enrollment capacity. Furthermore, see staff's discussion in Section 12.a. above. **Source:** Project Plans; See referenced sources in Section 12.a. above.				
12.d. A significant temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
Discussion: Throughout the duration of construction, a temporary increase in ambient noise levels associated with an active construction site would be generated. However, such noise levels would be limited to construction hours and level standards regulated by the County's Noise Ordinance for construction. Therefore, any temporary increases will be less than significant. **Source:** County of San Mateo Noise Ordinance.				
12.e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, exposure to people residing or working in the project area to excessive noise levels?				X
Discussion: The project is not located within an area regulated by an airport land use plan or within 2 miles of a public airport. **Source:** Project Location.				
12.f. For a project within the vicinity of a private airstrip, exposure to people residing or working in the project area to excessive noise levels?				X
Discussion: The project is not located within the vicinity of any known private airstrip. **Source:** Project Location.				

13.	**POPULATION AND HOUSING**. Would the project:				
		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
13.a.	Induce significant population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
Discussion: The project involves the expansion of an existing private K-8 school. The school is located in a densely urbanized community, will utilize existing development, and serves a relatively small population of the overall regional area. Current student enrollment is 220 students and the project proposes to increase enrollment to 260 students. Thus, the project will not induce significant population growth.					
Source: Project Plans.					
13.b.	Displace existing housing **(including low- or moderate-income housing)**, in an area that is substantially deficient in housing, necessitating the construction of replacement housing elsewhere?				X
Discussion: The project proposes to utilize existing office/industrial developed parcels to accommodate the expansion of an existing K-8 private school. Therefore, no housing will be displaced by the project.					
Source: Project Location; Project Plans.					

14.	**PUBLIC SERVICES**. Would the project result in significant adverse physical impacts associated with the provision of new or physically altered government facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
14.a.	Fire protection?				X
14.b.	Police protection?				X
14.c.	Schools?				X
14.d.	Parks?				X

14.e. Other public facilities or utilities (e.g., hospitals, or electrical/natural gas supply systems)?				X

Discussion: The project proposes to expand an existing K-8 private school into existing neighboring buildings and will not involve any new or physically altered government facilities or increase the need for new or physically altered government facilities.

Source: Project Plans.

15. RECREATION. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
15.a. Increase the use of existing neighborhood or regional parks or other recreational facilities such that significant physical deterioration of the facility would occur or be accelerated?				X

Discussion: The project will provide on-site (indoor and outdoor) recreational areas for students and therefore will not result in an increase in use of any neighborhood or regional parks or other recreational facilities that could cause significant deterioration of the facility.

Source: Project Plans.

15.b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

Discussion: The project does not involve recreational facilities beyond what will be provided on-site for students. Any provided on-site recreational facilities will utilize existing development.

Source: Project Plans.

16. TRANSPORTATION/TRAFFIC. Would the project:				
	Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
16.a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?		X		

Discussion: A Traffic Impact Analysis (TIA) for the project has been prepared to comply with transportation requirements of the County of San Mateo, Redwood City, Town of Atherton, City of Menlo Park, and the California Department of Transportation (Caltrans), as key intersections of study for the project included intersections within these jurisdictions. Of 26 key intersections studied, 4 will be significantly impacted by project-related traffic due to increased vehicle delay. These impacted intersections and the recommended mitigation measures to reduce the impacts to a less than significant level are discussed in Section 16.d. One additional intersection, Middlefield Road and Woodside Road (State Route 84), is part of the San Mateo County Congestion Management Program (CMP) network; however, the project will not have any impact to the level of service of this intersection, as described in Section 16.b. Furthermore, the project will not add more than 100 peak hour vehicle trips to the CMP network.

The TIA also analyzes queuing at 5 key intersections in the area, as identified in Section 16.d. below. With the exception of the Bay Road/Woodside Road intersection, the turn pockets were determined to be adequate to accommodate the estimated maximum queues under existing, background, and cumulative conditions. Queuing impacts to the Bay Road/Woodside Road intersection were determined to be minimal as the project trips would increase the queue by less than one vehicle. See Section 16.d. for further discussion and the recommended mitigation measures that will reduce project-related traffic impacts to a less than significant level.

Source: Final San Mateo County Congestion Management Program, 2015, City/County Association of Governments of San Mateo County; Final Traffic Impact Analysis for Synapse School Expansion Project, prepared by Hexagon Transportation Consultants, Inc., dated January 19, 2016; Memorandum to the Traffic Impact Analysis, prepared by Hexagon Transportation Consultants, Inc., dated July 22, 2016.

16.b. Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the County congestion management agency for designated roads or highways?				X

Discussion: The project is estimated to add fewer than 100 peak hour vehicle trips to the San Mateo County Congestion Management Program's (CMP) network. Furthermore, the project is not identified to have any impacts to the level of service standards or travel demand measures of Middlefield Road and Woodside Road (State Route 84), which is the only identified key intersection for the project that is included in the CMP network.

Source: Final San Mateo County Congestion Management Program, 2015, City/County Association of Governments of San Mateo County; Final Traffic Impact Analysis for Synapse School Expansion Project, prepared by Hexagon Transportation Consultants, Inc., dated January 19, 2016.

16.c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in significant safety risks?				X

Discussion: The project will not have any impacts on air traffic patterns as the expansion of the school will utilize existing development and does not involve air traffic.

Source: Project Plans.

16.d. Significantly increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		X		

Discussion: The Traffic Impact Analysis (TIA), prepared by Hexagon Transportation Consultants, Inc. (Hexagon), for the project provides analysis on intersection level of service impacts and queuing impacts that would be generated by the project, which have the potential to increase roadway hazards. The following summarizes the conclusions from the TIA and identifies the recommended mitigation measures to reduce any significant impacts to a less than significant level.

INTERSECTION LEVEL OF SERVICE IMPACTS

Hexagon studied 26 intersections in the North Fair Oaks Community to determine intersection level of service impacts under cumulative plus project conditions. Of the 26 studied intersections, 4 are determined to be significantly impacted due to an increase in vehicle delay. Below identifies the 4 impacted intersections and the recommended mitigation measures to reduce the impacts to a less than significant level.

Edison Way and 5th Avenue

Based on a Memorandum from Hexagon, dated July 22, 2016, Synapse School proposes to reduce impacts to the Edison Way and 5th Avenue intersection by the implementation of a school shuttle program to reduce vehicle trips generated by the school. The shuttle program is available for both students and staff for morning drop-offs and afternoon pick-ups. The shuttle program, along with carpooling, would reduce vehicle trips generated by the increased student capacity and mitigate the impact at the Edison Way and 5th Avenue intersection to a less than significant level provided AM

peak hour trips do not exceed 275 trips. Therefore, the following mitigation measure is recommended to ensure that the project does not exceed 275 AM peak hour trips:

Mitigation Measure 4: Normal operation of the school shall not exceed 275 morning peak hour trips. The morning peak hour is defined as the highest one-hour period between 7:00 a.m. - 9:00 a.m. during which the maximum traffic generated by the school occurs.

The applicant shall retain a third-party traffic consultant to count the trip generation of the school, which would include counting the school driveways plus counting any school-related traffic that is dropping off students along Edison Way or any of its cross-streets. The third-party consultant will conduct the counts over three (3) weekdays (a Tuesday, Wednesday, and/or Thursday) in October and March of each school year, excluding scheduled school holidays. The trip count shall be the average of the three weekday counts. Concurrent with the trip counts, the third-party traffic consultant shall conduct a queuing analysis for on-street queuing due to driveway back-up at the designated on-site pick-up/drop-off points for the school. The data from the traffic counts shall be submitted to the County of San Mateo Public Works Roadway Traffic Services Division and the Current Planning Section of the County of San Mateo Planning and Building Department in a report for review and acceptance. The County may also choose to conduct its own monitoring if desired.

If the monitoring shows that the trip cap is exceeded, then the applicant shall have 30 days to prepare and submit a Transportation Demand Management (TDM) Program that incorporates measures to reduce the number of trips below the trip cap, and shall have an additional 30 days to implement the TDM Program in order to bring the site into compliance with the trip cap. Measures included in the TDM Program may include, but shall not be limited to, staggering start times, adding shuttle buses, initiating a carpooling program, and offering staff incentives to take alternative transportation. A subsequent monitoring will be conducted by the County 30 days following implementation of the TDM Program. If the subsequent monitoring indicates that the site still exceeds the trip cap, then the applicant may need to resort to reducing student enrollment accordingly to bring the site into compliance with the trip cap. Non-compliance evidenced by the subsequent monitoring may also result in review of the use permit by the Planning Commission.

Mitigation Measure 5: The applicant shall provide, upon request by the County, shuttle bus logs for all shuttle buses serving the school. The shuttle logs shall show the number of students dropped off at the school site each day.

Mitigation Measure 6: The maximum student enrollment shall not exceed 260 students. The applicant shall submit an annual report stating the total number of students and staff attending or working at the school prior to the beginning of each school year. Any increase in student enrollment beyond 260 students shall require an amendment to the Non-Conforming Use Permit and shall require an updated Traffic Impact Analysis.

Fair Oaks Avenue and Marsh Road

In order to reduce the project impacts at the Fair Oaks Avenue and Marsh Road intersection to a less than significant level, which requires improving the level of service at this intersection to a Level of Service (LOS) C, the following mitigation measure is recommended:

Mitigation Measure 7: The applicant shall install a left-turn refuge lane on Marsh Road, within the current roadway width, to improve the intersection operation.

Middlefield Road and 5th Avenue and Middlefield Road and 2nd Avenue

In order to reduce the project impacts at the Middlefield Road and 5th Avenue intersection and Middlefield Road and 2nd Avenue intersection to a less than significant level, which requires improving the average and worst movement delays at these intersection to a less than 4-second increase from no-project conditions, the following mitigation measure is recommended:

Mitigation Measure 8: The school shall stagger the start and end times by one hour with

85 students starting one hour earlier during the 7:00 a.m. - 8:00 a.m. hour and ending during the 2:00 p.m. - 3:00 p.m. hour to reduce AM peak-hour trips.

VEHICLE QUEUING IMPACTS

Hexagon analyzed vehicle queuing at five intersections to determine whether the project would significantly increase vehicle queues beyond the capacity of the turn pockets at the following intersections:

1. El Camino Real (State Route 82) and 5th Avenue
2. Bay Road and Woodside Road (State Route 84)
3. Middlefield Road and Woodside Road (State Route 84)
4. US 101 northbound off-ramp and Marsh Road
5. US 101 southbound *off-ramp and Marsh Road*

With the exception of the Bay Road/Woodside Road intersection, the turn pockets were determined to be adequate to accommodate the estimated maximum queues under existing, background, and cumulative conditions.

The queueing analysis found that the southbound left-turn queue at the Bay Road/Woodside Road intersection would exceed the vehicle storage capacity during the AM peak hour under cumulative no-project conditions. However, the project trips would only increase the queue by less than one vehicle. Therefore, the project would result in a minimal increase in vehicle queuing impacts at the Bay Road/Woodside Road intersection. To monitor queuing associated with the proposed project over the long-term, Mitigation Measure 4, above, requires that an annual queuing analysis be submitted to the County for review and acceptance.

Additionally, in order to ensure that vehicle queuing on-site is minimized during drop-off and pick-up, the following mitigation measure is recommended:

Mitigation Measure 9: The school shall provide designated staff or parents to assist in the on-site management of drop-off and pick-up operations.

Source: Final Traffic Impact Analysis for Synapse School Expansion Project, prepared by Hexagon Transportation Consultants, Inc., dated January 19, 2016; Memorandum to the Traffic Impact Analysis, prepared by Hexagon Transportation Consultants, Inc., dated July 22, 2016.

16.e.	Result in inadequate emergency access?				X

Discussion: The project does not propose any changes to existing access onto the project parcels for emergency services. Furthermore, the Menlo Park Fire Protection District has reviewed the project and provided conditional approval.

Source: Project Plans; Menlo Park Fire Protection District.

16.f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				X
Discussion: The project does not require or propose any new, or existing, public transit, bicycle, or pedestrian facilities. Given that the project will utilize existing development, and includes continued use and potential expansion of a private shuttle program for students and staff, the project will not conflict with any adopted policies or decrease the performance or safety of any facilities. **Source:** Project Plans.				
16.g. Cause noticeable increase in pedestrian traffic or a change in pedestrian patterns?			X	
Discussion: The project proposes an incremental increase in student population with the expansion of facilities. Current enrollment at the school is 220, where the maximum enrollment under the proposed project will be 260. While it is expected that any local students, or staff, may walk to the school, any change in pedestrian traffic would be minimal. **Source:** Project Plans.				
16.h. Result in inadequate parking capacity?		X		
Discussion: See staff's discussion in Section 10.b. above. **Source:** See referenced sources in Section 10.b. above.				

17. UTILITIES AND SERVICE SYSTEMS. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
17.a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
Discussion: The project parcels are served by the Fair Oaks Sewer Maintenance District, which is managed and regulated by the County of San Mateo Department of Public Works (DPW). Thus, wastewater treatment for the project parcels are not regulated by the Regional Water Quality Control Board. Furthermore, the Fair Oaks Sewer Maintenance District has provided conditional approval of the project. **Source:** Project Location; County Department of Public Works, Fair Oaks Sewer Maintenance District.				

17.b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
Discussion: The project parcels will continue to be served by the Fair Oaks Sewer Maintenance District (via the County of San Mateo Department of Public Works) and the California Water Service Company, both of which have provided (conditional) approval of the project. While the County Department of Public Works has indicated that the existing downstream sewer mains must be evaluated to determine if there is sufficient capacity to accommodate any additional sewage demand for the proposed project, such evaluation would be required at the building permit stage, and there is no expectation that any potential upgrades to the sewer district's facilities would result in any significant environmental effects given that the service district area consists of a densely urbanized community. **Source:** Project Plans; California Water Service Company; County Department of Public Works, Fair Oaks Sewer Maintenance District.				
17.c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
Discussion: See staff's discussion in Section 9.a. above. **Source:** See referenced sources in Section 9.a. above.				
17.d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
Discussion: The project parcels will continue to be served by the California Water Service Company, who has provided approval of the project with no conditions. **Source:** Project Plans; California Water Service Company.				
17.e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
Discussion: See staff's discussion in Section 17.b. above. **Source:** See referenced sources in Section 17.b. above.				

17.f.	Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	

Discussion: The County of San Mateo has contracted with Recology to provide solid waste service for the North Fair Oaks area, which includes the project parcels. The County's contract with Recology runs through 2020. Recology transfers solid waste pick-up to Shoreway Recycling and Disposal Center. Shoreway Recycling and Disposal Center then distributes the waste materials as applicable, including recycling of qualified materials when feasible and transferring unrecyclable materials to the Ox Mountain Landfill. While the project may result in an increase in solid waste disposal, any such increase will be minimal given the incremental increase in students from the school's current operating capacity. Therefore, the project will not result in a significant increase in solid waste.

Source: Recology San Mateo County; Project Plans.

17.g.	Comply with Federal, State, and local statutes and regulations related to solid waste?				X

Discussion: The California Integrated Waste Management Act directs local agencies to divert the amount of solid waste that is being disposed of into landfills by maximizing the use of feasible source reduction, recycling, and composting. As discussed in Section 17.f. above, Shoreway Recycling and Disposal Center transports recyclable materials to specialized processing facilities with residual waste being transferred to the Ox Mountain Landfill. Shoreway Recycling and Disposal Center's function in the solid waste disposal process for the North Fair Oaks area, which includes the project parcels, increases efforts for recycling and helps to decrease the amount of solid waste that is being diverted to the landfill.

Source: California Integrated Waste Management Act of 1989.

17.h.	Be sited, oriented, and/or designed to minimize energy consumption, including transportation energy; incorporate water conservation and solid waste reduction measures; and incorporate solar or other alternative energy sources?				X

Discussion: The project will utilize existing buildings to accommodate an expansion of the Synapse School. While minimal exterior improvements are needed, interior renovation of the buildings will be necessary to change their former use as storage, office, and child recreation to school-related use. As such, any proposed renovation work will be required to comply with mandatory requirements under the California Green Building Standards Code as well as with California Energy Codes.

Source: Project Plans.

17.i.	Generate any demands that will cause a public facility or utility to reach or exceed its capacity?		X		

Discussion: The project parcels will continue to be served by municipal water and sewer. The project has been reviewed by the California Water Service Company and the Fair Oaks Sewer Maintenance District, who have provided (conditional) approvals. In addition, while the project will generate additional traffic, a traffic impact analysis prepared by Hexagon Transportation Consultants, Inc. has concluded that any increases in traffic can be mitigated to a less than significant level, subject to recommended Mitigation Measures 4-8. See Section 16. above. Furthermore, the County Department of Public Works has reviewed and conditionally approved the traffic impact analysis and recommended mitigation measures.

Source: Project Location; See referenced sources in Section 16. above.

18.	MANDATORY FINDINGS OF SIGNIFICANCE.	*Potentially Significant Impacts*	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
18.a.	Does the project have the potential to degrade the quality of the environment, significantly reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		

Discussion: As discussed in Section 4., the project will not result in any biological impacts as the project site is in a light industrial zoned district of the densely developed urban community of North Fair Oaks. The project parcels are surrounded by light industrial and residential development and the project proposes to utilize the existing built conditions of the project parcels. The project does have the potential to result in significant traffic impacts according to a Traffic Impact Analysis prepared for the project; however, Mitigation Measures 4-8 are recommended to reduce such impacts to a less than significant level, as discussed in Section 16.

Source: Subject Document.

18.b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			X	
Discussion: The project proposes to expand an existing private K-8 school in an urban community that has been designated to support medium to high density land uses including industrial, commercial, and institutional uses. The project will utilize past development on the project site and propose an incremental increase in school population. While the project will not generate any significant increase in demand on public services, the project has the potential to generate significant traffic impacts in a community that lacks adequate circulation and parking facilities. However, a Traffic Impact Analysis for the project, which considers cumulative plus project conditions, identifies that the traffic impacts generated from the project can be reduced to a less than significant level with proper mitigation. Therefore, Mitigation Measures 2-9 are recommended to minimize traffic and parking-related impacts associated with the project to a less than significant level. **Source:** Subject Document.				
18.c. Does the project have environmental effects which will cause significant adverse effects on human beings, either directly or indirectly?		X		
Discussion: As identified through this document, the project could result in environmental impacts that could both directly and indirectly cause impacts on human beings, including temporary air quality impacts and traffic and parking impacts; see Sections 3., 8., 10., 16., and 17. However, the implementation of the recommended mitigation measures included in this document will adequately reduce any potential impacts to a less than significant level. **Source:** Subject Document.				

RESPONSIBLE AGENCIES. Check what agency has permit authority or other approval for the project.

AGENCY	YES	NO	TYPE OF APPROVAL
U.S. Army Corps of Engineers (CE)		X	
State Water Resources Control Board		X	
Regional Water Quality Control Board		X	
State Department of Public Health		X	

AGENCY	YES	NO	TYPE OF APPROVAL
San Francisco Bay Conservation and Development Commission (BCDC)		X	
U.S. Environmental Protection Agency (EPA)		X	
County Airport Land Use Commission (ALUC)		X	
CalTrans		X	
Bay Area Air Quality Management District		X	
U.S. Fish and Wildlife Service		X	
Coastal Commission		X	
City		X	
Sewer/Water District:		X	
Other:		X	

MITIGATION MEASURES

	Yes	No
Mitigation measures have been proposed in project application.	X	
Other mitigation measures are needed.	X	

The following measures are included in the project plans or proposals pursuant to Section 15070(b)(1) of the State CEQA Guidelines:

Mitigation Measure 1: Pursuant to the Bay Area Air Quality Management District's CEQA Guidelines (May 2011), the following Air Quality Best Management Practices shall be implemented throughout the duration of construction-related activities on the project site:

a. Idling times shall be minimized either by shutting equipment or vehicles off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485, of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

b. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications.

c. Minimize the idling time of diesel powered construction equipment to two minutes.

Mitigation Measure 2: All staff members who drive to the school shall be required to park in the school's on-site parking lot.

Mitigation Measure 3: All 127 on-site parking spaces shall be appropriately striped. Striping marks shall be maintained in a clear and visible manner so that they are easily recognizable to drivers.

Mitigation Measure 4: Normal operation of the school shall not exceed 275 morning peak hour trips. The morning peak hour is defined as the highest one-hour period between 7:00 a.m. -

9:00 a.m. during which the maximum traffic generated by the school occurs.

The applicant shall retain a third-party traffic consultant to count the trip generation of the school, which would include counting the school driveways plus counting any school-related traffic that is dropping off students along Edison Way or any of its cross-streets. The third-party consultant will conduct the counts over three (3) weekdays (a Tuesday, Wednesday, and/or Thursday) in October and March of each school year, excluding scheduled school holidays. The trip count shall be the average of the three weekday counts. Concurrent with the trip counts, the third-party traffic consultant shall conduct a queuing analysis for on-street queuing due to driveway back-up at the designated on-site pick-up/drop-off points for the school. The data from the traffic counts shall be submitted to the County of San Mateo Public Works Roadway Traffic Services Division and the Current Planning Section of the County of San Mateo Planning and Building Department in a report for review and acceptance. The County may also choose to conduct its own monitoring if desired.

If the monitoring shows that the trip cap is exceeded, then the applicant shall have 30 days to prepare and submit a Transportation Demand Management (TDM) Program that incorporates measures to reduce the number of trips below the trip cap, and shall have an additional 30 days to implement the TDM Program in order to bring the site into compliance with the trip cap. Measures included in the TDM Program may include, but shall not be limited to, staggering start times, adding shuttle buses, initiating a carpooling program, and offering staff incentives to take alternative transportation. A subsequent monitoring will be conducted by the County 30 days following implementation of the TDM Program. If the subsequent monitoring indicates that the site still exceeds the trip cap, then the applicant may need to resort to reducing student enrollment accordingly to bring the site into compliance with the trip cap. Non-compliance evidenced by the subsequent monitoring may also result in review of the use permit by the Planning Commission.

Mitigation Measure 5: The applicant shall provide, upon request by the County, shuttle bus logs for all shuttle buses serving the school. The shuttle logs shall show the number of students dropped off at the school site each day.

Mitigation Measure 6: The maximum student enrollment shall not exceed 260 students. The applicant shall submit an annual report stating the total number of students and staff attending or working at the school prior to the beginning of each school year. Any increase in student enrollment beyond 260 students shall require an amendment to the Non-Conforming Use Permit and shall require an updated Traffic Impact Analysis.

Mitigation Measure 7: The applicant shall install a left-turn refuge lane on Marsh Road, within the current roadway width, to improve the intersection operation.

Mitigation Measure 8: The school shall stagger the start and end times by one hour with 85 students starting one hour earlier during the 7:00 a.m. - 8:00 a.m. hour and ending during the 2:00 p.m. - 3:00 p.m. hour to reduce AM peak-hour trips.

Mitigation Measure 9: The school shall provide designated staff or parents to assist in the on-site management of drop-off and pick-up operations.

DETERMINATION (to be completed by the Lead Agency).

On the basis of this initial evaluation:

______ I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared by the Planning Department.

X I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because of the mitigation measures in the discussion have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.

______ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

[signature]
(Signature)

3/30/17
Date

Project Planner
(Title)

ATTACHMENTS:

A. Vicinity Map/Project Location
B. Site Plan
C. Floor Plan, 3425 Edison Way
D. Floor Plan, 3375 Edison Way
E. Elevation Plans, 3375 Edison Way (exterior changes proposed)
F. Floor Plan, 3355 Edison Way
G. Floor Plan, 3345 Edison Way
H. Final Traffic Impact Analysis for Synapse School Expansion, prepared by Hexagon Transportation Consultants, Inc., dated January 19, 2016 (*available at the County of San Mateo Planning and Building Department)*
I. Memorandum for Alternative Mitigation for Synapse School Expansion, prepared by Hexagon Transportation Consultants, Inc., dated July 22, 2016 (*available at the County of San Mateo Planning and Building Department)*

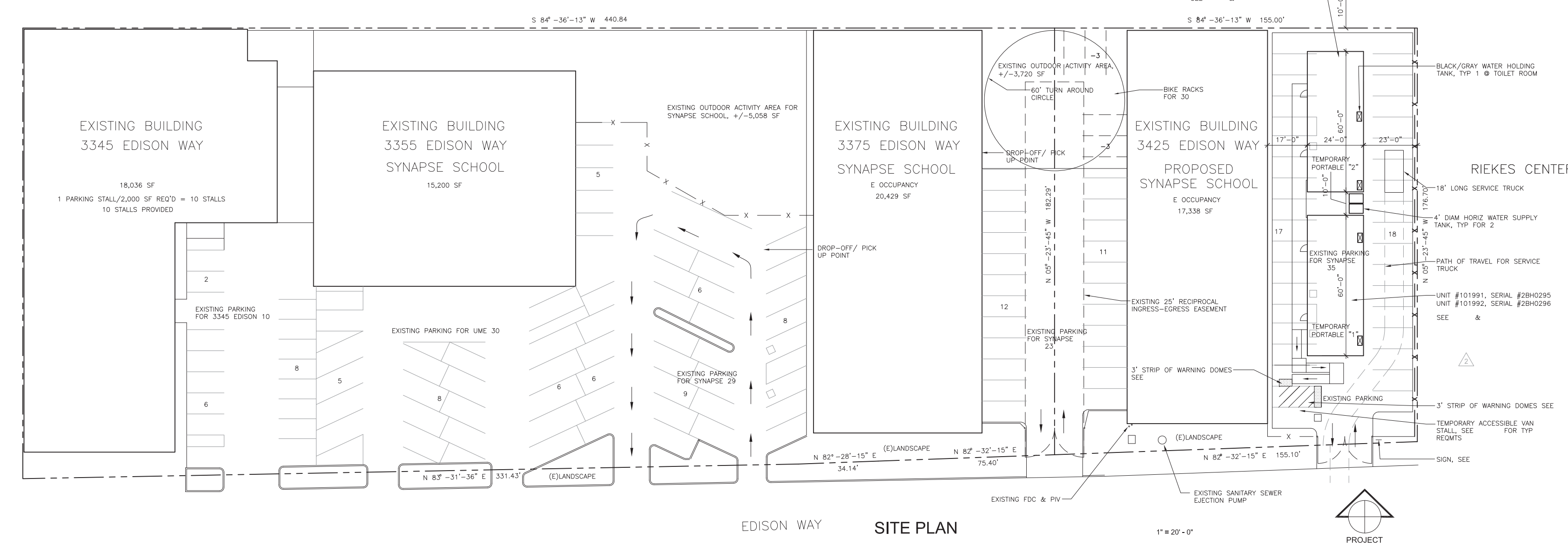
SSB:jlh – SSBBB0134_WJH.DOCX
Initial Study Checklist 10.17.2013.docx

ATTACHMENT A

ATTACHMENT B

NOTES:

1. REFER TO PORTABLES SUPPLIER'S DRAWINGS FOR SPECIFICS BUILDINGS, RAMPS, HANDRAILS, & LANDINGS.
2. A MONITORED ALARM SYSTEM SHALL BE PROVIDED BY OWNER'S VENDOR INCLUDING ALL REQUIRED SUBMITTALS FOR REVIEW BY MENLO PARK FIRE DEPARTMENT.



SITE PLAN

1" = 20' - 0"

AREA PLAN WITHIN 500' OF SITE

PROJECT DESCRIPTION

REMODEL OF AN EXISTING BUILDING AT 3425 EDISON TO ACCOMODATE AN INDEPENDANT K-8 SCHOOL. WORK INCLUDES: UPGRADE OF ACCESSIBLE SITE FEATURES & ACCESS; UPGRADES TO THE EXISTING TOILET ROOMS; PROVISION OF NEW STAFF TOILET ROOMS; AND MINOR INTERIOR REMODELING AS SHOWN ON THE DRAWINGS.

DUE TO CHANGE IN OCCUPANCY WORK MAY ALSO INCLUDES SEISMIC UPGRADE OF THE EXISTING STRUCTURE. THIS MAY INVOLVE CLOSING UP EXISTING WINDOW OPENINGS IN TWO CONCRETE PANELS AS SHOWN ON THE DRAWINGS.

PROJECT SUMMARY

OCCUPANCY	PRIMARILY E WITH MINOR B OCCUPANCIES
CONSTRUCTION TYPE	III-B, FIRE SPRINKLERED
NUMBER OF STORIES	TWO (AT EACH BUILDING)
EXISTING BUILDING AREAS:	
3345 EDISON	
FIRST FLOOR:	15,612 SF
SECOND FLOOR:	2,423 SF
TOTAL:	18,035 SF
3355 EDISON	
FIRST FLOOR:	10,176 SF
SECOND FLOOR:	5,024 SF
TOTAL:	15,200 SF
3375 EDISON	
FIRST FLOOR:	12,153 SF
SECOND FLOOR:	8,276 SF
TOTAL:	20,429 SF
3425 EDISON	
FIRST FLOOR:	9,858 SF
SECOND FLOOR:	7,480 SF
TOTAL:	17,338 SF

ALLOWABLE BUILDING AREA IS 29,000 SF FOR 3425 BASED ON 14,500 SF ALLOWED PER FLOOR. REFERENCE IS MADE TO CBC TABLE 503 & SECTION 506.4.1.

APPLICABLE CODES:

2013 EDITIONS; CALIFORNIA BUILDING, MECH, ELEC, PLUMB, FIRE, ENERGY & GREEN BLDG CODES.
CURRENT COUNTY OF SAN MATEO ORDINANCES

REQUIRED PARKING UNDER PLANNING DEPT CRITERIA:

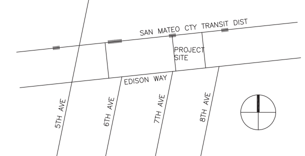
3345 EDISON:	
+/- 269 SF OF OFFICE @ 200SF PER STALL =	2 STALLS
2 CLASSROOMS @ 1 STALL PER =	2 STALLS
+/-13,002 SF OF EXTENDED CLASSROOM @ 1 STALL PER 2,000 SF =	7 STALLS
+/- 2,012 SF OF STORAGE, UTILITY, TOILET RMS, STAIRS, LOBBY	0 STALLS
SUB-TOTAL REQUIRED =	11 STALLS
3355 EDISON:	
+/- 1,641 SF OF OFFICE @ 200SF PER STALL =	8 STALLS
+/- 4,954 SF OF MULTI-USE SPACE @ 100SF PER STALL =	50 STALLS
2,162 SF STORAGE, TOILET RMS, STAIRS, LOBBY	0
4 CLASSROOMS @ 1 STALL PER =	4 STALLS
+/-4,493 SF OF EXTENDED CLASSROOM @ 1 STALL PER 2,000 SF =	3 STALLS
SUB-TOTAL REQUIRED =	65 STALLS
3375 EDISON:	
+/- 1,159 SF OF OFFICE @ 200SF PER STALL =	6 STALLS
+/- 827 SF OF MULTI-USE SPACE @ 100SF PER STALL =	9 STALLS
19 CLASSROOMS @ 1 STALL PER =	19 STALLS
+/- 1,110 SF OF EXTENDED CLASSROOM/OPEN AREA @ 1 STALL PER 2,000 SF =	1 STALLS
SUB-TOTAL REQUIRED =	35 STALLS
3425 EDISON:	
+/- 1,913 SF OF OFFICE @ 200SF PER STALL =	10 STALLS
+/- 1,340 SF OF MULTI-USE SPACE @ 100SF PER STALL =	14 STALLS
9 CLASSROOMS @ 1 STALL PER = STALLS	9
SUB-TOTAL REQUIRED =	33 STALLS
TOTAL REQUIRED =	144 STALLS
TOTAL PROVIDED @ 3345, 3355, 3375 & 3425 :	127 STALLS

111 STANDARD FULL SIZE STALLS
6 ACCESSIBLE STALLS

REQUIRED PARKING UNDER DEPT OF PUBLIC WORKS CRITERIA:

SYNAPSE REQMTS @ .25 STALLS PER STUDENT x 260 =	65 STALLS
3345 WAREHOUSE FACILITY @ .5 STALLS/1000SF x 18,036SF =	9 STALLS
TOTAL REQUIRED =	75 STALLS

TOTAL PARKING PROVIDED FOR ALL 4 BUILDINGS = 127 STALLS
TOTAL AREA OF BUILDINGS = 71,002 SF
PARKING REQUIRED PER FUTURE RATIO OF 1/750SF = 95 STALLS



VICINITY MAP

NTS

DRAWING SHEET INDEX

ARCHITECTURAL

NO	DATE	REVISIONS
1	7/17/2014	USE PERMIT SUBMITTAL
2	12/2/2014	PORTABLE REVISION
3	3/30/15	Client changes
4	1/5/16	PARKING CALC UPDATE
5	5/13/16	Pkg calc update
6	12/13/16	Addition of 3345 Edison

LICENSED ARCHITECT, No. C015444, Exp. 8-31-2017, STATE OF CALIFORNIA

Tenant Improvements for
Synapse School
3345, 3355, 3375 & 3425 Edison Way
Menlo Park California

CRJ Architects, Inc.
Architecture and Planning
2596 Bay Road, Suite C, Redwood City, CA 94063
Telephone: 650-780-9560

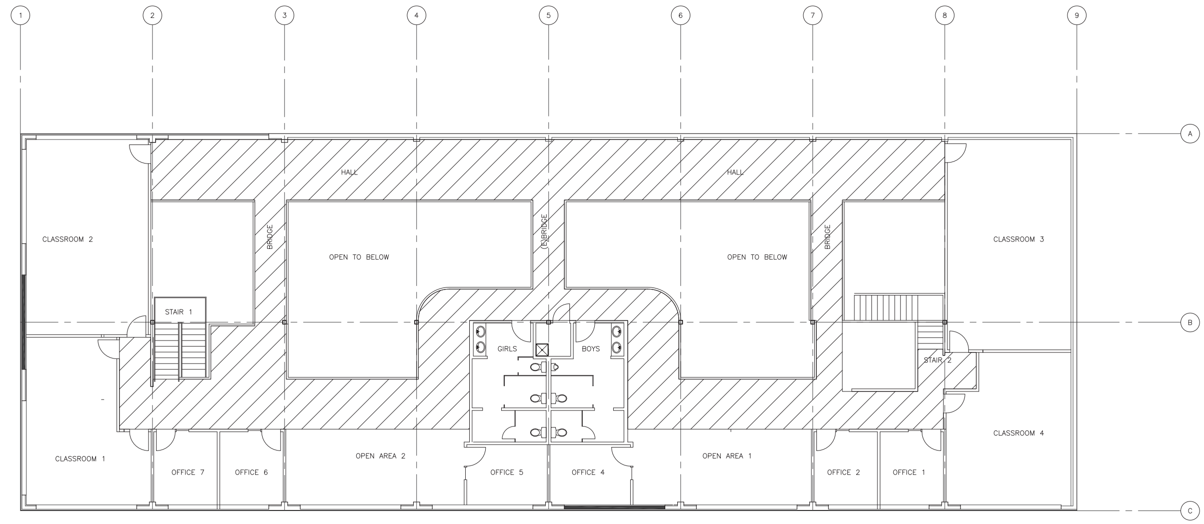
Site Plan

BY: AA
JOB: 13-114
DATE: 2/19/2014

P-0

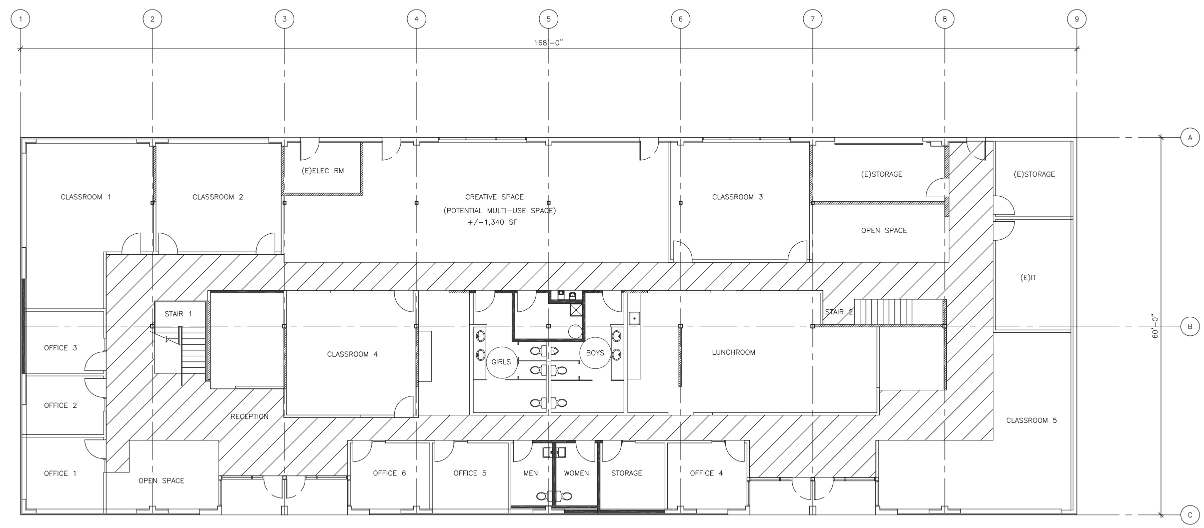
SHT. 1 OF 8

CIRCULATION SPACE



SECOND FLOOR; 7,480 SF

SECOND FLOOR



FIRST FLOOR; 9,858 SF

FIRST FLOOR

PROJECT NORTH

CONCEPTUAL FLOOR PLANS

1/8" = 1' - 0"

5

NO	DATE	REVISIONS
	7/17/2014	USE PERMIT SUBMITTAL
	12/13/16	Addition of 3345 Edison

LICENSED ARCHITECT
JIM ALAN ANDREWS
No. C015444
Exp. 8-31-2017
STATE OF CALIFORNIA

Proposed Improvements for
Synapse School
3345, 3355, 3375 & 3425 Edison Way
Menlo Park California

CRJ Architects, Inc.
Architecture and Planning
2596 Bay Road, Suite C, Redwood City, CA 94063
Telephone: 650-780-9560

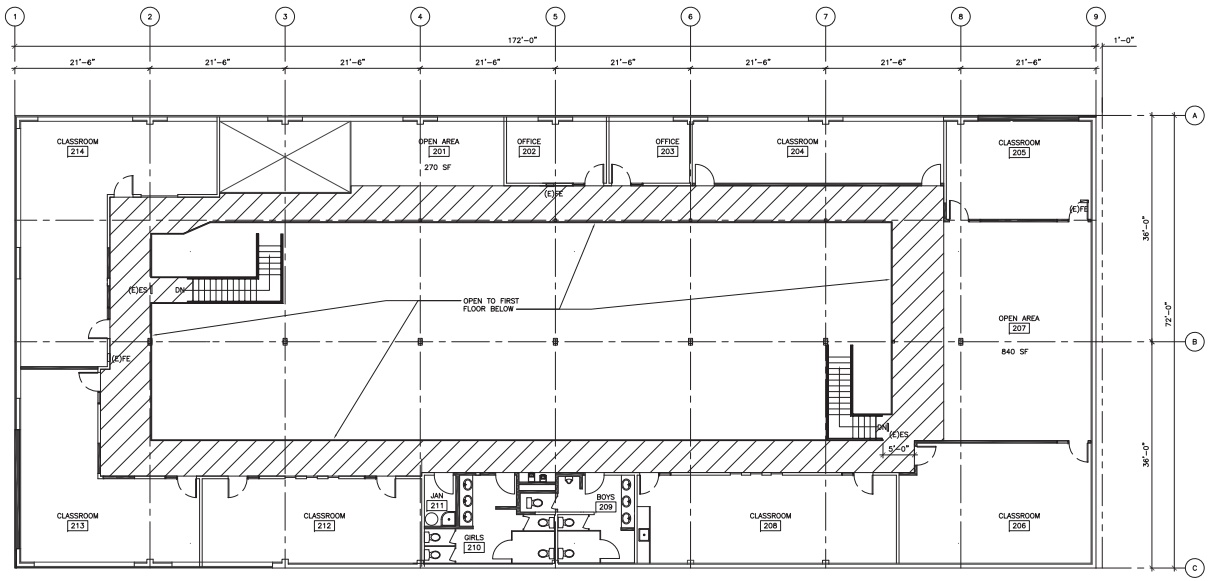
Conceptual
Floor Plans
3425 Edison

BY: AA
JOB: 13-114
DATE: 2/19/2014

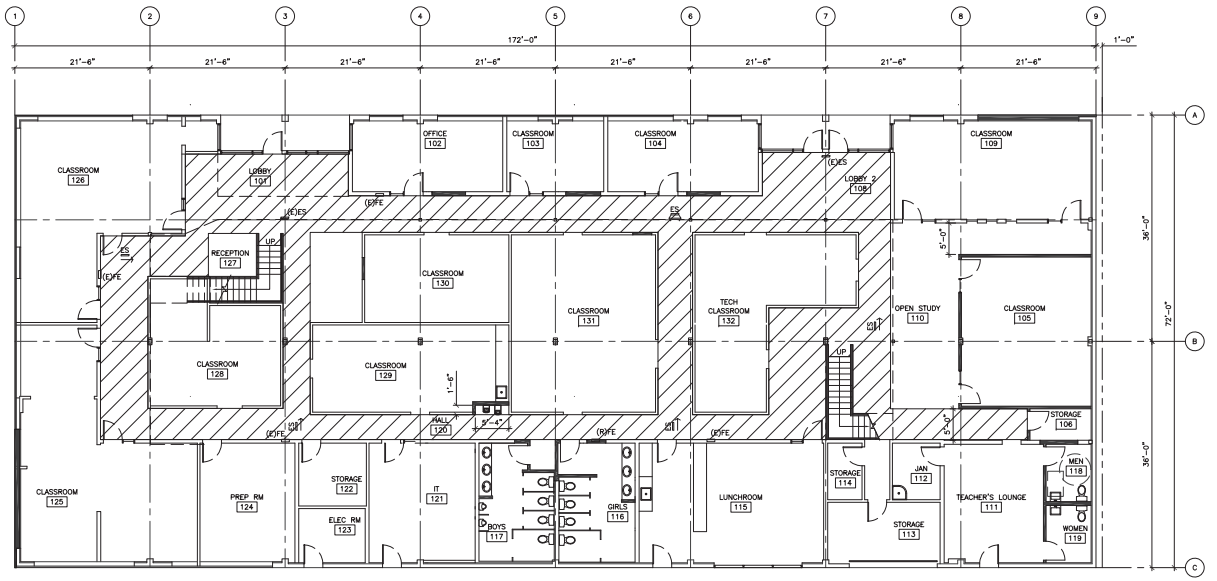
P-2

SHT. _ OF _
REVISIONS 2

ATTACHMENT C



SECOND FLOOR



FIRST FLOOR

PROJECT NORTH

1/8" = 1' - 0"

FLOOR PLANS

Proposed Improvements for
Synapse School
3345, 3355, 3375 & 3425 Edison Way
Menlo Park
California

CRJ Architects, Inc.
Architecture and Planning
2596 Bay Road, Suite C, Redwood City, CA 94063
Telephone: (650) 299-2600

Floor Plans
3375 Edison

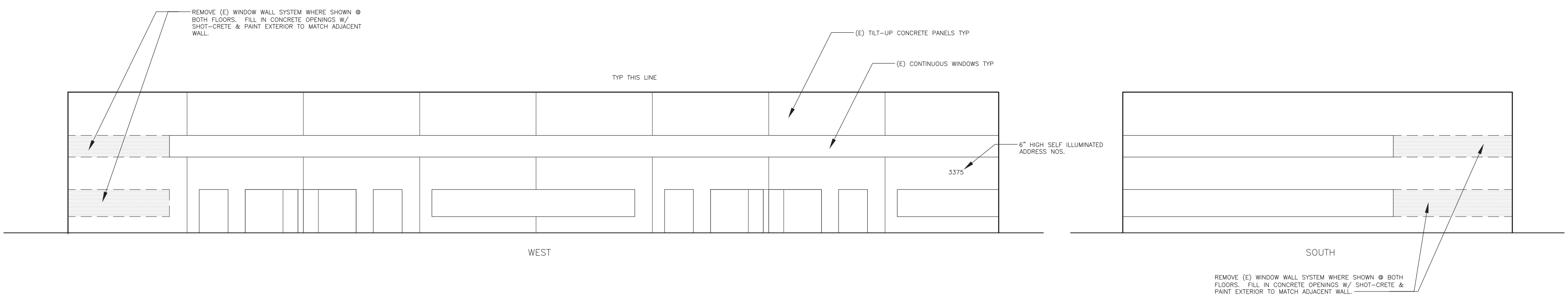
BY: AA
JOB: 13-114
DATE: 2/19/2014

P-4

SHT 3 OF 3

REVISIONS

ATTACHMENT D



BUILDING ELEVATIONS

1/8" = 1' - 0"

NO	DATE	REVISIONS
1	7/17/2014	USE PERMIT SUBMITTAL

LICENSED ARCHITECT
KIM ALAN ANDREWS
No. C015444
Exp. 8-31-2017
STATE OF CALIFORNIA

Proposed Improvements for
Synapse School
3345, 3355, 3375 & 3425 Edison Way
Menlo Park California

CRJ Architects, Inc.
Architecture and Planning
2596 Bay Road, Suite C, Redwood City, CA 94063
Telephone: 650-780-9560

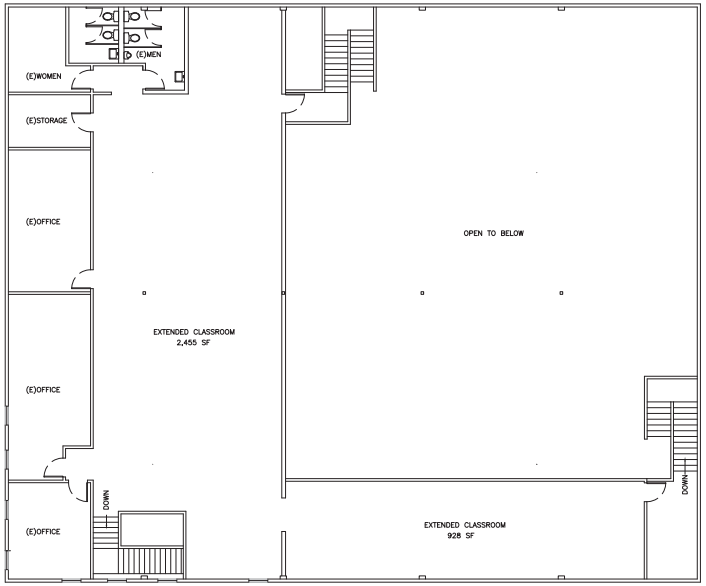
Building
Elevations
3375 Edison

BY: AA
JOB: 13-114
DATE: 2/19/2014

P-5

SHT. 6 OF 8
REVISIONS 1

ATTACHMENT E



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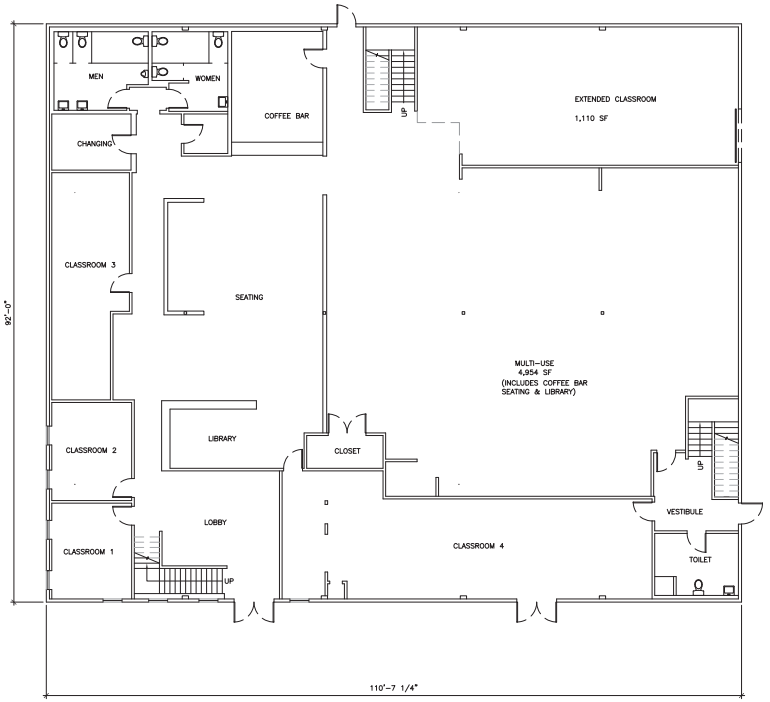


FIRST FLOOR

PROJECT NORTH

EXISTING FLOOR PLANS

1/8" = 1'-0"

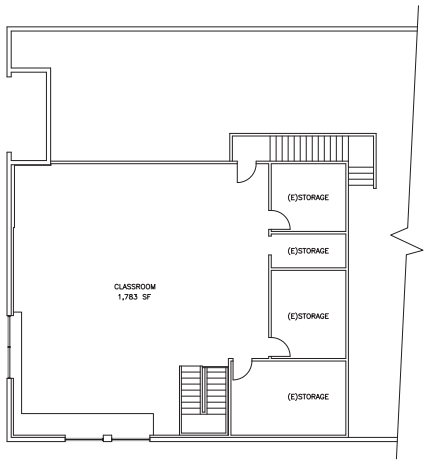
Tenant Improvements for
Synapse School
3345, 3355, 3375 & 3425 Edison Way
Menlo Park
California

CRJ Architects, Inc.
Architecture and Planning
2580 Bay Road, Suite 4 Redwood City, CA 94063
Telephone: 650-780-9560

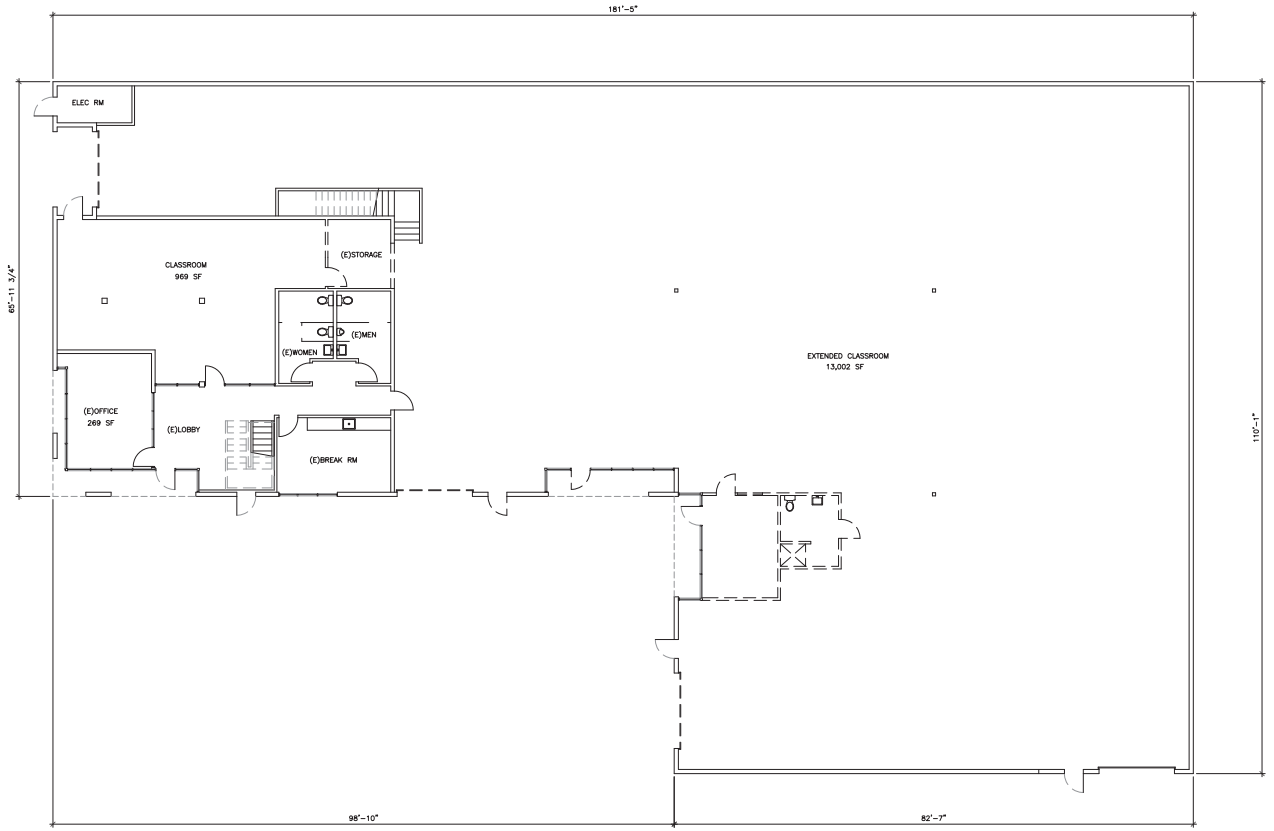
3355 Edison
Floor Plans

P-6

ATTACHMENT F



SECOND FLOOR



FIRST FLOOR

PROJECT NORTH

EXISTING FLOOR PLANS

1/8" = 1'-0"

Tenant Improvements for
Synapse School
3345, 3355, 3375 & 3425 Edison Way
Menlo Park
California

CRJ Architects, Inc.
Architecture and Planning
2596 Bay Road, Suite C, Redwood City, CA 94063
Telephone: 650-701-2560

EXISTING 3345 EDISON FLOOR PLANS

BY: AA
JOB: 13-114.01
DATE: 12/13/2016

P-7

SHT. ___ OF ___

REVISIONS

ATTACHMENT G

County of San Mateo - Planning and Building Department

ATTACHMENT E

HEXAGON TRANSPORTATION CONSULTANTS, INC.

Synapse School Expansion Project II

Trafic Impact Analysis

Prepared for:

Synapse School

April 21, 2021

Hexagon Transportation Consultants, Inc.
Hexagon Office: 4 N. Second Street, Suite 400
San Jose, CA 95113
Phone: 408.971.6100
Hexagon Job Number: 18GB41
Client Name: Jim Eagen, Synapse School

Table of Contents

Appendices

List of Tables

List of Figures

Executive Summary

This report presents the results of the traffic impact analysis (TIA) for the proposed expansion of Synapse School, a K-8 school on 3375 Edison Way in San Mateo County, CA. The school proposes to increase enrollment from the permitted 260 students to 310 students. Of the proposed 310 students, 30 students would be pre-school students. There would be no changes to the building square footage. The 2018 - 2019 enrollment was 254 K-8 students.

As part of the existing conditional use permit (CUP), the school is permitted to have up to 260 students and is required to comply with a trip cap of 275 morning peak-hour trips. The school currently implements a shuttle program to reduce the vehicle trips generated by the school and to comply with the trip cap. The school complied with the trip cap requirement based on the results of the trip monitoring conducted in October 2018 and 2019.

Project Trip Estimates

Based on the trip generation counts at the school, at the beginning of the school day (AM peak hour between 8:00 and 9:00 AM) the trip generation rate for the existing school was calculated to be 1.08 trips per student. At the end of the school day (school PM peak hour between 3:00 and 4:00 PM), the trip generation rate was calculated to be 0.8 trips per student. The trip rates account for the shuttle program that is being implemented at the school.

With the expansion, the school would increase the enrollment to 310 students. Of the 310 students, 30 students would be pre-school students that would start at the same hour as K-8 students and would be dismissed at 2:00 PM. Pre-school students would not take shuttles. The school expects that one third of pre-school students to carpool with siblings, so the 20 non-carpooling pre-school students (two thirds of 30 pre-school students) are expected to generate 40 AM peak-hour trips (20 non-carpooling students x 2 trips per student) and would not generate any school PM peak-hour trips. Therefore, a rate of 1.33 trips per student was calculated for the pre-school students (40 trips / 30 students). The school trips for the 280 K-8 students were estimated using the trip generation rates observed for the current school. The proposed expansion is estimated to generate an increase of 68 AM peak-hour trips and 21 school PM peak-hour trips.

Intersection Level of Service Impacts

Table ES-1 summarizes the results of the peak-hour intersection level of service analysis under the following conditions: existing (Chapter 2), existing plus project (Chapter 3), background (Chapter 4), background plus project (Chapter 5), cumulative no-project and cumulative plus project (Chapter 6) conditions.

Under existing and background conditions, the added project trips would not cause the study intersections that operate unacceptably under no-project conditions to exceed the applicable significance impact thresholds or cause the study intersections that operate acceptably under no-project conditions to exceed the applicable level of service standards. Therefore, the project would not result in a significant traffic impact under existing plus project conditions or background plus project conditions.

Under cumulative conditions, the added project trips would cause an increase in vehicle delay exceeding the applicable significance impact thresholds at the following intersections:

- 5th Avenue and Edison Way (San Mateo County)
- 2nd Avenue and Middlefield Road (San Mateo County)

Recommended Project Mitigation

The following mitigation measures are proposed to mitigate the project's impacts. Table ES-1 summarizes the intersection levels of service at impacted intersections with the mitigation measure.

- **Trip Cap of 298 AM Peak-Hour Trips:** In order to avoid the project impacts at the 5th Avenue/Edison Way and 2nd Avenue/Middlefield Road intersections under cumulative plus project conditions, the school should implement measures, including staggering the pre-school start time to 9:15 AM, to reduce the AM peak hour trips generated by the school from 343 trips to 298 trips. The trip cap would improve the average and worst movement delays at these two intersections to less than a 4-second increase from no-project conditions. Staggering the pre-school start time is also expected to reduce the peak parking demand and improve the drop-off operations because there would be fewer students arriving during the peak drop-off period. With the staggering schedule, the school would provide care and accommodations to preschool students who arrive early with siblings before the preschool program starts.

Bicycles, Pedestrians, and Transit

Similar to existing conditions, most students would be dropped off at school, with very few students walking or bicycling to school. Most of the residential streets in the vicinity of the school have no sidewalks. Therefore, it would not be safe for the younger students to walk to school. Although the streets do not have bike lanes, the low volumes and travel speeds on the neighborhood streets are conducive to bicycling.

Site Access and Circulation

The review of site access and circulation focuses on the evaluation of drop-off/pick-up operations in the main parking lot in front of Buildings 1, 2, and 3. The main parking lot is configured with a loading area in front of Building 2. All drop-off/pick-up vehicles enter the parking lot via the driveway in front of Building 3, drop off/pick-up students in front of Building 2, and exit the parking lot via the driveway next to Building 1. Parents that choose to park and walk students to the school use the middle driveways to enter and exit the parking lot. There are staff members in the loading area to manage the drop-off/pick-up traffic.

In the morning, the drop-off vehicle queue occasionally extended out of the parking lot by one to five vehicles, which occurred in the westbound shoulder/parking lane and did not block westbound traffic on Edison Way. Most of the time, the drop-off traffic moved efficiently and smoothly within the parking lot. Parents were not observed to drop off students on Edison Way.

In the afternoon, the school implements an informing system to speed up the pick-up operations. Upon arrival, parents inform the staff at the driveway who then inform the staff inside the building to bring out each student. The pick-up vehicle moves forward to the loading area, while waiting for the student to be brought out. Observations show that the pick-up traffic moved efficiently and smoothly within the parking lot with the informing system, and the pick-up vehicle queue did not extend to Edison Way.

The proposed expansion would increase the enrollment by up to 50 students (30 pre-school students and 20 K-8 students). The pre-school parents would utilize the loading area in front of Building 2. Parents would also park in front of Buildings 1 and 2. The current traffic management practice would continue to be implemented to move the drop-off/pick-up traffic within the parking lot. However, because the drop-off vehicle queue was observed to back up to Edison Way occasionally by one to five vehicles in the morning, the enrollment increase would potentially worsen the vehicle queuing condition on Edison Way. Therefore, it is recommended the school assign more staff members in the drop-off areas and in the parking lot to ensure drop-off/pick-up traffic moves efficiently on site and to prevent vehicle queuing on Edison Way. During the peak drop-off/pick-up periods, the school should also assign a staff member at the inbound driveway to monitor the inbound vehicle queueing condition at the driveway and coordinate with staff in the loading area and parking lot to quickly move the inbound traffic if the vehicle queue extends to Edison Way.

Parking

As part of the existing conditional use permit (CUP), the school is required to provide 128 on-site parking spaces. Following the CUP approval, approximately 44 of these spaces were designated and striped on turf between Buildings 3 and 4. However, because the actual parking demand is only 37-50 parking spaces (as discussed below) and the main parking lot was able to accommodate this parking demand, the parking spaces between Buildings 3 and 4 and east of Building 4 were seldom used. This turfed area between Buildings 3 and 4 is currently used as outdoor classrooms under temporary tents to comply with Covid-19 protocol, as well as an outdoor educational garden. Accordingly, the school currently maintains 84 striped parking spaces on site with 53 parking spaces in the main parking lot, 26 parking spaces in the faculty parking lot east of Building 4, and 5 parking spaces between Buildings 3 and 4.

Per the San Mateo County Zoning Ordinance Section 6276.7, the school would be required to provide 192 parking spaces. The school is applying for a parking exception as part of the CUP amendment submittal to reduce this requirement to 60 parking spaces with 46 parking spaces in the main parking lot, 5 parking spaces between Buildings 3 and 4, and 9 parking spaces in the parking lot east of Building 4. Based on parking demand counts conducted on in November 2019, the maximum number of vehicles parked on site ranged from 37 to 50 vehicles between 8:00 AM and 9:00 AM. The school enrollment was 260 students in November 2019 when the parking counts were conducted. With the proposed enrollment of 310 students, the projected parking demand would be 44 to 60 spaces (an 19.2% increase). Therefore, the parking demand for the 310-student enrollment would be much lower than the 192 parking spaces required by Zoning Ordinance Section 6276.7 and also lower than the current 84 striped parking spaces provided. Accordingly, the proposed 60 parking spaces proposed would adequately accommodate the school's parking demand.

During the morning drop-off period, most parents drop off K-8 students without parking. In the afternoon, some parents parked in the parking lot or on Edison Way to pick up students at the school buildings. While there are available parking spaces in the parking lot, some parents were observed to park on Edison Way (and walk to the school to pick up students) to avoid interaction with the pick-up traffic.

For the proposed 30 pre-school students, it is anticipated that parents would either park in the loading area in front of Building 2 or park in front of Buildings 1 and 2. It is expected that some of the parking spaces would be reserved for the pre-school during morning drop off and afternoon pick up hours. Because most parents drop K-8 students without parking, there would be enough parking spaces for the pre-school in the morning. In the afternoon, the pre-school students would be dismissed more than a half hour before the K-8 students, so the parking demand would not overlap.

Based on these observations and the anticipated pre-school operations, the proposed 60 parking spaces would be sufficient to accommodate the school's anticipated parking demand. If the parking exception is not granted to the extent requested, the school would consider relying on their existing reciprocal parking agreement with Sports House at 3151 Edison Way to meet its remaining parking requirement.

Table ES-1
Intersection Level of Service Summary

				Existing				Existing + Project				Background				Background + Project				Cumulative				Cumulative + Project			
				Average[1]		Worst[2]		Average[1]		Worst[2]		Average[1]		Worst[2]		Average[1]		Worst[2]		Average[1]		Worst[2]		Average[1]		Worst[2]	
ID	Intersection (Jurisdiction)	Control	Peak Hour	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS
1	2nd Ave and Edison Wy	AWSC	AM	9.1	A	9.8	A	9.2	A	9.9	A	9.3	A	9.9	A	9.3	A	10.0	A	10.3	B	11.4	B	10.3	B	11.4	B
	(San Mateo County)		PM	8.5	A	8.9	A	8.5	A	8.9	A	8.8	A	9.4	A	8.9	A	9.4	A	9.1	A	9.6	A	9.1	A	9.7	A
2	5th Ave and Edison Wy	AWSC	AM	18.3	C	24.9	C	20.1	C	28.1	D	18.3	C	24.9	C	20.1	C	28.1	D	**39.5**	**E**	**64.8**	**F**	**45.5**	**E**	**78.0**	**E**
			Mitigated AM[5]																					***41.0***	***E***	***68.4***	***E***
	(San Mateo County)		PM	18.8	C	25.0	C	19.3	C	25.8	D	18.8	C	25.0	C	19.3	C	25.8	D	**38.5**	**E**	**64.2**	**F**	**40.3**	**E**	**68.1**	**F**
3	Fair Oaks Ave and Edison Wy	OWSC	AM			9.5	A			9.6	A			9.5	A			9.6	A			9.7	A			9.8	A
	(San Mateo County)		PM			9.4	A			9.4	A			9.4	A			9.4	A			9.5	A			9.6	A
4	Fair Oaks Ave and Marsh Rd	OWSC	AM			16.9	C			17.3	C			18.0	C			18.4	C			19.0	C			19.5	C
	(San Mateo County)		PM			18.8	C			18.9	C			20.4	C			20.5	C			21.7	C			21.9	C
5	5th Ave and Semicircle Rd	Signal	AM	7.3	A	10.1	A	7.3	A	10.2	B	7.2	A	10.1	B	7.3	A	10.2	B	14.6	B	22.6	C	14.7	B	22.8	C
	(San Mateo County)		PM	5.4	A	8.7	A	5.4	A	8.7	A	5.4	A	8.8	A	5.4	A	8.8	A	9.0	A	12.0	B	9.0	A	12.1	B
6	5th Ave and Middlefield Rd	Signal	AM	24.9	C	36.8	D	25.5	C	37.0	D	25.4	C	36.7	D	26.1	C	37.2	D	36.0	D	49.3	D	37.8	D	51.2	D
	(San Mateo County)		PM	26.2	C	37.4	D	26.4	C	37.6	D	26.4	C	38.2	D	26.6	C	38.3	D	37.6	D	52.8	D	38.1	D	53.3	D
7	Marsh Rd and Middlefield Rd	Signal	AM	29.3	C			29.5	C			32.6	C			32.8	C			32.7	C			32.9	C		
	(Atherton)		PM	32.1	C			32.2	C			34.0	C			34.0	C			38.3	D			38.4	D		
8	Marsh Rd and Bay Rd	Signal	AM	24.1	C			24.2	C			25.2	C			25.3	C			25.6	C			25.7	C		
	(Menlo Park)		PM	33.2	C			33.2	C			32.2	C			32.2	C			33.5	C			33.5	C		
9	5th Ave and El Camino Real	Signal	AM	19.2	B	34.3	C	19.4	B	34.6	C	19.4	B	34.3	C	19.6	B	34.6	C	25.7	C	43.9	D	26.2	C	45.4	D
	(San Mateo County)		PM	19.7	B	31.9	C	19.8	B	32.0	C	19.9	B	32.2	C	20.0	B	32.5	C	26.5	C	43.0	D	26.7	C	43.4	D
10	Marsh Rd and Florence St	Signal	AM	37.9	D			37.8	D			36.4	D			36.5	D			39.5	D			39.5	D		
	(Menlo Park)		PM	39.0	D			39.0	D			39.0	D			39.0	D			41.6	D			41.6	D		
11	5th Ave and Bay Rd	AWSC	AM	30.6	D			30.9	D			34.3	D			34.7	D										
	(Redwood City)		PM	29.1	D			29.2	D			**36.1**	**E**			**36.3**	**E**										
		Signal[4]	AM																	19.5	B			20.2	C		
			PM																	13.4	B			13.4	B		
12	Woodside Rd and Bay Rd	Signal	AM	**81.2**	**F**			**81.7**	**F**			**124.7**	**F**			**125.2**	**F**			**90.6**	**F**			**91.7**	**F**		
	(Redwood City)		PM	47.1	D			47.2	D			**95.1**	**F**			**95.2**	**F**			**122.7**	**F**			**122.9**	**F**		
13	Woodside Rd and Middlefield Rd	Signal	AM	41.9	D			42.2	D			43.9	D			44.1	D			**117.1**	**F**			**117.6**	**F**		
	(Redwood City/CMP)		PM	35.3	D			35.3	D			35.0	D			35.1	D			**127.3**	**F**			**127.6**	**F**		
14	Marsh Rd and US 101 NB Off-ramp	Signal	AM	17.6	B			17.6	B			25.0	C			25.1	C			19.8	B			19.9	B		
	(Menlo Park)		PM	13.5	B			13.5	B			13.8	B			13.9	B			15.8	B			15.9	B		
15	Marsh Rd and US 101 SB Off-ramp	Signal	AM	17.4	B			17.4	B			19.0	B			19.1	B			19.5	B			19.6	B		
	(Menlo Park)		PM	17.8	B			17.8	B			17.9	B			17.9	B			19.7	B			19.7	B		
16	2nd Ave and Bay Rd	AWSC	AM	12.7	B			12.8	B			13.7	B			13.8	B			28.3	D			28.7	D		
	(Redwood City)		PM	12.6	B			12.6	B			14.2	B			14.3	B			14.1	B			14.2	B		
17	2nd Ave and Middlefield Rd	TWSC	AM			**40.9**	**E**			**43.2**	**E**			**46.0**	**E**			**48.9**	**E**			**155.5**	**F**			**167.3**	**F**
			Mitigated AM[5]																							***159.1***	***F***
	(San Mateo County)		PM			26.3	D			26.3	D			**57.9**	**F**			**58.5**	**F**			**62.7**	**F**			**64.1**	**F**
18	San Benito Ave and Fair Oaks Ave	TWSC	AM			11.9	B			12.2	B			11.9	B			12.2	B			12.6	B			12.9	B
	(San Mateo County)		PM			9.7	A			9.7	A			9.7	A			9.7	A			9.9	A			10.0	B
19	Palmer Ln and Fair Oaks Ave	TWSC	AM			11.5	B			11.6	B			11.5	B			11.6	B			12.1	B			12.3	B
	(San Mateo County)		PM			9.9	A			9.9	A			9.9	A			9.9	A			10.1	B			10.2	B
20	Holbrook Ln and Fair Oaks Ave	TWSC	AM			10.7	B			10.8	B			10.7	B			10.8	B			11.1	B			11.2	B
	(San Mateo County)		PM			9.3	A			9.3	A			9.3	A			9.3	A			9.4	A			9.5	A

ID	Intersection (Jurisdiction)	Control	Peak Hour	Existing				Existing + Project				Background				Background + Project				Cumulative				Cumulative + Project			
				Average[1]		Worst[2]		Average[1]		Worst[2]		Average[1]		Worst[2]		Average[1]		Worst[2]		Average[1]		Worst[2]		Average[1]		Worst[2]	
				Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS
21	18th Ave and Bay Rd	OWSC[3]	AM			9.3	A			9.3	A			9.3	A			9.3	A			10.1	B			10.1	B
	(San Mateo County)		PM			8.7	A			8.7	A			8.7	A			8.7	A			8.9	A			8.9	A
22	14th Avee and Fair Oaks Ave	TWSC	AM			10.8	B			11.0	B			10.8	B			11.0	B			11.3	B			11.5	B
	(San Mateo County)		PM			9.8	A			9.8	A			9.8	A			9.8	A			10.0	B			10.0	B

Notes:

AWSC = all-way stop controlled intersection; TWSC = two-way stop controlled intersection; OWSC = one-way stop controlled intersection.
1. Average intersection delay and LOS are reported for signalized and all-way stop controlled intersections.
2. Worst movement delay and LOS are reported for signalized and unsignalized intersections in the San Mateo County.
3. The intersection of 18th Ave and Bay Rd is yield controlled for the northbound appporach, but analyzed as an OWSC.
4. Signalization is anticipated to be in place by the cumulative year as identified in the 2012 Update to the Redwood City Transportation Impact Mitigation Fee.
5. The mitigation measure is to expand the school's shuttle program to meet the AM trip cap of 298 trips.
Bold indicates a substandard level of service.
Bold indicates a significant impact.

1. Introduction

This report presents the results of the traffic impact analysis (TIA) for the proposed expansion of Synapse School, a K-8 school on 3375 Edison Way in San Mateo County, CA (see Figure 1). The school proposes to increase enrollment from the permitted 260 students to 310 students. Of the proposed 310 students, 30 students would be pre-school students. There would be no changes to the building square footage. The 2018 - 2019 enrollment was 254 K-8 students. Access to the school is provided via driveways off Edison Way (see Figure 2).

The current school schedule is 8:15 - 8:45 AM for the morning drop-off, 3:15 - 3:30 PM for the lower school pick-up, and 3:30 - 3:45 PM for the middle school pick-up. On Friday, the pick-up schedule is 2:30 - 2:45 PM for the lower school and 2:45 - 3:00 PM for the middle school. The proposed pre-school would start at 8:15 - 8:45 AM and end at 2:00 PM.

As part of its existing conditional use permit (CUP), the school is permitted to have up to 260 students and is required to comply with a trip cap of 275 morning peak-hour trips. The school currently implements a shuttle program to reduce the vehicle trips generated by the school and to comply with the trip cap. The school conducted trip monitoring in October 2018 and 2019. There were 254 and 260 students enrolled during the 2018 and 2019 trip monitoring, respectively. The school complied with the trip cap requirement based on the trip monitoring results. The trip monitoring results are included in Appendix A.

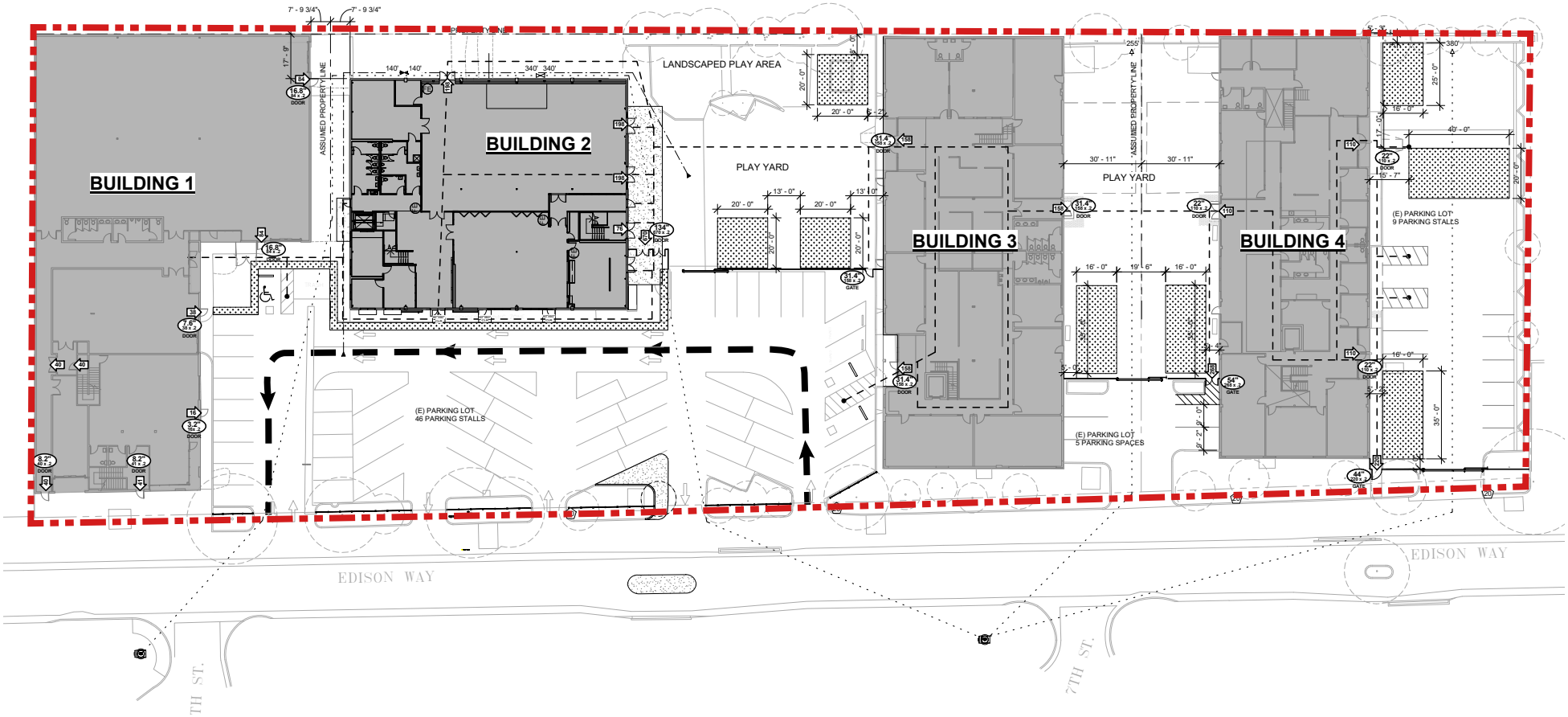
It should be noted that any future expansion of the school and or increase in enrollment beyond 310 students would require re-evaluation of the traffic conditions and an amendment to the traffic study.

Scope of Study

The traffic study was conducted for the purpose of identifying potential transportation impacts related to the project. The potential impacts of the project were evaluated in accordance with the standards set forth by the County of San Mateo, Redwood City, City of Menlo Park, and Town of Atherton. The project would generate fewer than 100 peak-hour vehicle trips; therefore, an analysis of impacts on state routes and routes of regional significance in accordance with the City/County Association of Governments of San Mateo County (C/CAG)'s Congestion Management Program (CMP) guidelines is not required.

Figure 1
Site Location and Study Intersections

HEXAGON



LEGEND

= Synapse School Boundary

= Drop-Off / Pick-Up Path

Figure 2
Synapse School Site and Drop-Off/Pick-Up Circulation

HEXAGON

NORTH
Not to Scale

The traffic analysis included an analysis of weekday AM (7:00 - 9:00 AM) and school PM (2:00 - 4:00 PM) peak-hour traffic conditions and determined the traffic impacts of the proposed development on 22 key intersections in the vicinity of the new school site. The 2:00 - 4:00 PM peak period was selected to account for traffic levels encountered during typical school pick-up activity occurring during this time period.

Thirteen of the study intersections are under the jurisdiction of the County of San Mateo, 4 are located in Redwood City, 4 are located in Menlo Park, and one is located in Atherton. The study intersections are identified below.

1. 2nd Avenue and Edison Way (San Mateo County)
2. 5th Avenue and Edison Way (San Mateo County)
3. Fair Oaks Avenue and Edison Way (San Mateo County)
4. Fair Oaks Avenue and Marsh Road (San Mateo County)
5. 5th Avenue and Semicircle Road (San Mateo County)
6. 5th Avenue and Middlefield Road (San Mateo County)
7. Marsh Road and Middlefield Road (Atherton)
8. Marsh Road and Bay Road (Menlo Park)
9. 5th Avenue and El Camino Real (SR 82) (San Mateo County)
10. Mash Road and Florence Street (Menlo Park)
11. 5th Avenue and Bay Road (Redwood City)
12. Woodside Road (SR 84) and Bay Road (Redwood City)
13. Woodside Road (SR 84) and Middlefield Road (Redwood City)
14. Marsh Road and US 101 Northbound Off-ramp (Menlo Park)
15. Marsh Road and US 101 Southbound Off-ramp (Menlo Park)
16. 2nd Avenue and Bay Road (Redwood City)
17. 2nd Avenue and Middlefield Road (San Mateo County)
18. San Benito Avenue and Fair Oaks Avenue (San Mateo County)
19. Palmer Lane and Fair Oaks Avenue (San Mateo County)
20. Holbrook Lane/17th Avenue and Fair Oaks Avenue (San Mateo County)
21. 18th Avenue and Bay Road (San Mateo County)
22. 14th Avenue and Fair Oaks Avenue (San Mateo County)

Traffic conditions were evaluated for the following scenarios:

- ***Existing Conditions.*** Existing intersection volumes were obtained from manual turning-movement counts conducted in September 2018. New traffic count data are contained in Appendix B.

- ***Existing Plus Project Conditions.*** Existing plus project traffic volumes were estimated by adding to existing traffic volumes the trips associated with the project. Existing plus project conditions were evaluated relative to existing conditions in order to determine potential project impacts according to the level of service policy for each jurisdiction based on the location of each study intersection.

- ***Background Conditions*.** Background traffic volumes were estimated by adding to existing traffic volumes the projected volumes from approved but not yet constructed developments in the vicinity of the project. Lists of approved but not yet constructed developments were provided by the Cities of Redwood City and Menlo Park.

- ***Background Plus Project Conditions.*** Background plus project traffic volumes were estimated by adding to background traffic volumes the trips associated with the project. Background plus

project conditions were evaluated relative to background conditions in order to determine potential project impacts according to the level of service policy for each jurisdiction based on the location of each study intersection.

- ***Cumulative Conditions.*** This scenario evaluates local traffic volumes and roadway conditions projected for the year 2040, which is 20 years from the anticipated project completion. The cumulative no project traffic volumes were estimated using the projected baseline (2015) and 2040 volumes from the bi-county C/CAG-VTA travel demand model, the 2040 General Plan volumes from the City of Menlo Park ConnectMenlo environmental impact report (EIR) (October 2016), and the 2040 cumulative volumes from the City of Redwood City Broadway Plaza Draft EIR (November 2018). Cumulative plus project traffic volumes were estimated by adding to cumulative traffic volumes the trips associated with the project. Cumulative plus project conditions were evaluated relative to cumulative conditions in order to determine potential project impacts according to the level of service policy for each jurisdiction based on the location of each study intersection.

Methodology

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

Data Requirements

The data required for the analysis were obtained from field observations, new traffic counts, previous traffic studies, and the County of San Mateo. The following data were collected from these sources:

- Existing intersection volumes
- Existing lane geometries
- Signal timing and phasing
- Approved but not yet completed projects

Intersection Level of Service Analysis Methodologies

Traffic conditions at the study intersections were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays.

This study utilizes Synchro software to determine intersection level of service. The Synchro software is based on the *2010 Highway Capacity Manual* (HCM) methodology for signalized and unsignalized intersections. This method evaluates intersection operations on the basis of average control delay time (measured in seconds per vehicle) for all vehicles at the intersection. This average delay can then be correlated to a level of service as shown in Table 1 for signalized intersections. The level of service correlation for unsignalized, stopped-controlled intersections is shown in Table 2. For stop-controlled intersections, level of service depends on the average delay experienced by vehicles on the stop-controlled approaches. Thus, for two-way or T-intersections, operations are defined by the average control delay experienced by vehicles entering the intersection from the stop-controlled approaches on minor streets or from left-turn approaches on major streets. For all-way stop controlled intersections, level of service is determined by the average delay for all movements through the intersection.

Table 1
Signalized Intersection Level of Service Definitions Based on Average Delay

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
A	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay.	10.0 or less
B	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 20.0
C	Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though some vehicles may still pass through the intersection without stopping.	20.1 to 35.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lengths, or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently.	55.1 to 80.0
F	This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes of such delay levels.	greater than 80.0

Source: Transportation Research Board, *2000 Highway Capacity Manual* (Washington, D.C., 2000), p.10-16.

Table 2
Unsignalized Intersection Level of Service Definitions Based on Delay

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

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

Level of Service Standards and Significant Impact Criteria

Significance criteria are used to establish what constitutes an impact. For this analysis, the study intersections are located within different jurisdictions including San Mateo County, Redwood City, the City of Menlo Park, and the Town of Atherton. Level of Service standards and significance criteria are described for each jurisdiction below.

County of San Mateo

According to the *County of San Mateo Traffic Impact Study Requirements* (9/1/2013), a project will be considered to have a significant impact if, for either peak hour, either of the following conditions occurs:

1. For intersections currently in compliance with the level of service standard, a project will cause the intersection to operate at a level of service that violates the overall standard of LOS C with no individual movement operating at worse than LOS D. On occasion, LOS D may be allowed for peak periods in very dense urban conditions at the County's discretion.
2. For intersections currently NOT in compliance with the level of service standard, a project will cause the intersection to operate at a level of service that violates the standard LOS mentioned above and the proposed project increases average control delay and individual movements at the intersection by 4 seconds or more.

As noted above, minimum LOS standards for County intersections are typically LOS C or better; however, a LOS D standard may be allowed for peak periods in very dense urban conditions per the County's discretion. The County Public Works staff confirmed that the County-maintained intersections within the study area are considered urban and therefore are subject to the LOS D standard. Therefore, for this study, a LOS D standard has been established for intersections and individual movements.

City of Redwood City

The City of Redwood City General Plan contains level of service standards. The study intersections are located outside the Downtown area; thus, the intersections are subject to the City's LOS D standard. The intersection of Woodside Road (SR 84) and Middlefield Road in Redwood City is a CMP intersection and has a standard of LOS E or better.

According to common Redwood City practice, traffic impacts at a study intersection would be considered significant if the project would cause:

Signalized Intersection

1. Operations at a signalized intersection to deteriorate from an acceptable level (LOS D or better) to an unacceptable level (LOS E or F); or
2. Average delay at a signalized intersection operating at an unacceptable level (LOS E or F) to increase by 5 seconds or more.

CMP Signalized Intersection

3. Operations at a signalized intersection to deteriorate from an acceptable level (LOS E or better) to an unacceptable level (LOS F); or
4. Average delay at a signalized intersection operating at an unacceptable level (LOS F) to increase by 5 seconds or more.

Unsignalized Intersection

1. Operations at an unsignalized intersection to deteriorate from an acceptable level (LOS D or better) to an unacceptable level (LOS E or F); or
2. Delay at an unsignalized intersection operating at an unacceptable level (LOS E or F) to increase by 5 seconds or more; and traffic volumes at the intersection satisfy the Caltrans peak-hour volume signal warrant for traffic signal installation.

A significant impact by the City of Redwood City standards is said to be satisfactorily mitigated when measures are implemented that eliminates the project impact.

City of Menlo Park

The City of Menlo Park's traffic impact analysis guidelines are described in the 2004 Circulation System Assessment (CSA) document. Within the CSA, the City has established detailed standards of significance. The level of service standard for signalized intersections on a primary arterial is LOS D or better. This standard is applied to the study intersections on Marsh Road.

For city arterial intersections and local approaches to State-controlled intersections, a project is considered to have a "potentially significant" traffic impact if during either peak hour:

1. The addition of project traffic causes an intersection operating at LOS A through LOS D to operate at an unacceptable LOS E or F, or increase the average delay at the intersection by 23 seconds or more, whichever occurs first; or
2. The addition of project traffic causes an increase of more than 0.8 seconds of average delay to vehicles on the critical movements of local approaches to State controlled (Caltrans) intersections operating at a LOS E or F.

Town of Atherton

According to common Atherton practice, a project is said to create a significant impact on traffic conditions at an intersection if, for either peak hour, either of the following conditions occurs:

1. The level of service at the intersection degrades from an acceptable LOS D or better under no project conditions to an unacceptable LOS E or F under project conditions, or
2. The level of service at the intersection is an unacceptable LOS E or F under no project conditions and the addition of project trips causes the intersection delay on the worst approach to increase by 4 seconds or more.

Report Organization

The remainder of this report is divided into six chapters. Chapter 2 describes existing conditions, including the existing roadway network, transit service, and existing bicycle and pedestrian facilities. Chapter 3 describes the method used to estimate project traffic, the intersection operations under existing plus project conditions, and the project's impact on the existing roadway network. Chapter 4 describes approved projects in the study area and presents the intersection operations under background conditions. Chapter 5 presents the intersection operations under background plus project conditions and describes the project's impact on the planned roadway network. Chapter 6 presents the intersection operations under cumulative conditions with and without the project and describes the project's impact on the planned roadway network. Chapter 7 presents the analysis of other transportation related issues, including site access and circulation.

2. Existing Conditions

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

Existing Roadway Network

Regional access to the project site is provided via US 101. US 101 a north-south freeway that extends through and beyond the Bay Area, connecting San Francisco to San Jose. In the project vicinity, US 101 generally runs in east-west direction and has four mixed-flow lanes on both directions with one high occupancy vehicle (HOV) lane on both directions south of the Woodside Road interchange. US 101 provides site access via the full interchanges at Woodside Road (SR 84) and Marsh Road.

Local access to the site is provided by El Camino Real (SR 82), Woodside Road (SR 84), Marsh Road, Middlefield Road, Bay Road, 5th Avenue, and Second Avenue. Descriptions of each roadway facility are presented below.

El Camino Real (SR 82) is an east-west six-lane arterial that extends from San Francisco southerly to San Jose. Between Whipple Avenue and Woodside Road in Redwood City, the facility consists of four travel lanes.

Woodside Road (SR 84) is a north-south arterial roadway that begins just west of I-280 and terminates at US 101 in the project vicinity. In the project vicinity, Woodside Road consists of four lanes.

Marsh Road is a north-south arterial roadway beginning at Middlefield Road with two lanes, widening to four lanes at Bay Road, and ending as a four-lane arterial roadway at Bayfront Expressway, which connects to the Dumbarton Bridge. It provides access to the North Fair Oaks neighborhood of San Mateo County via Fair Oaks Avenue.

Middlefield Road is an east-west arterial roadway that begins in Downtown Redwood City and extends to San Antonio Avenue in Mountain View. In the project vicinity, Middlefield Road consists of four lanes between Woodside Road and 8th Avenue/Semicircular Road and two lanes east of 8th Avenue.

Bay Road is an east-west collector roadway that extends from just west of Woodside Road in Redwood City Road to Willow Road in Menlo Park. It is separated by the Dumbarton Rail tracks near March Road. The western portion extends eastward from Woodside Road to its intersection with Spring Street/15th Avenue, where it becomes Florence Street, with four lanes west of 5th Avenue and three lanes east of

5th Avenue. The eastern portion extend from March Road to Willow Road with two lanes. Bay Road provides access to the North Fair Oaks neighborhood via 2nd Avenue, 5th Avenue, and Marsh Road.

5th Avenue is a north-south roadway fronting commercial and residential uses, extending from El Camino Real to Rolison Road adjacent to the US 101 freeway. It consists of four lanes between El Camino Real and Middlefield Road, then two lanes north of Middlefield Road where the uses are primarily residential. The posted speed limit is 25 miles per hour. Street parking is permitted on both sides of the street in the project vicinity. It provides access to the project site via Edison Way.

2nd Avenue is a north-south two-lane residential and industrial street that extends from Williams Avenue adjacent to the Caltrain tracks in the North Fair Oaks area to Broadway in Redwood City. It provides access to the project site via Edison Way.

Fair Oaks Avenue is a two-lane local residential street in the North Fair Oaks area connecting Marsh Road with Edison Way near the project site. Characteristic of several local streets within this neighborhood, Fair Oaks Avenue includes numerous traffic circles at intersections as well as other traffic calming devices that discourage cut-through vehicle traffic and promotes lower vehicle speeds within the neighborhood. Street parking is prohibited on both sides of the street. It provides access to the project site via Edison Way.

Edison Way is a two-lane local street that straddles industrial and residential uses in the North Fair Oaks area. Industrial uses line the north side of the roadway, which also abuts the Dumbarton Rail right-of-way, from First Avenue to the roadway terminus at 11th Avenue. Residential uses line the south side of the roadway with driveway access from individual residences. The posted speed limit is 25 mph. Street parking is permitted on both sides of the street in the project proximity.

Existing Bicycle and Pedestrian Facilities

Bicycle facilities are classified in three ways: off-street bike paths separated from auto traffic (Class I), on-street striped bike lanes (Class II), and on-street signed bike routes in which bicycles share the roadway with other vehicles (Class III). Figure 3 shows the existing bicycle facilities in the vicinity of the project site. Bike lanes and routes are provided intermittently along Middlefield Road in the vicinity of the project site. In the project proximity, there are no designated bike lanes or bike routes provided on any of the local streets within the North Fair Oaks neighborhood. However, these local streets carry low traffic volume and are conducive to bicyclists.

The *San Mateo County Comprehensive Bicycle and Pedestrian Plan* (September 2011) proposes future designation of 5th Avenue (between Middlefield road and Bay Road) and Bay Road (between Charter Street and 5th Avenue) as Class III bike routes within the study area. Based on the Redwood City *General Plan*, Figure BE-12 Bikeway Plan, the City has planned Class II bike lanes or III bike routes along 2nd Avenue, 5th Avenue, Bay Road, and Middlefield Road in the project vicinity.

Pedestrian facilities in the study area include crosswalks at intersections, actuated pedestrian signals, and sidewalks. Crosswalks and actuated pedestrian signals are provided at all signalized study intersections, with the exception of the intersection of 5th Avenue and Semicircular Road.

Crosswalks are not provided at most of the unsignalized study intersections, except at the following locations:

- Crosswalks are present at all directions of 2nd Avenue/Bay Road and 5th Avenue/Bay Road intersections.
- Crosswalks are present in the west leg of 2nd Avenue/Middlefield Road and Fair Oaks Avenue/San Benito Avenue intersections.

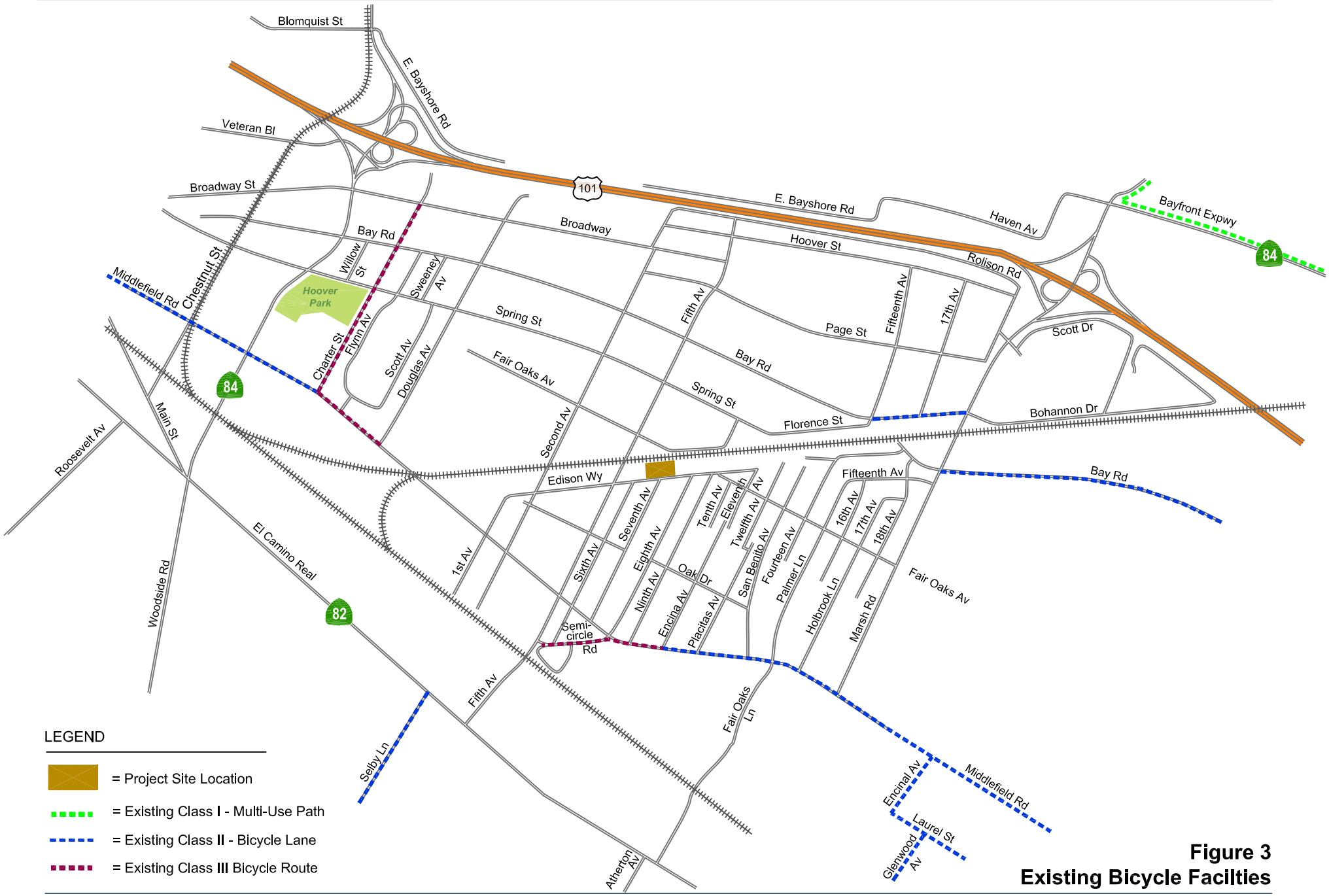


Figure 3
Existing Bicycle Facilties

Figure 4
Existing Transit Services

Sidewalks are provided intermittently throughout the project vicinity. With the exception of First Avenue, 5th Avenue, and Edison Way west of 5th Avenue, no sidewalks are provided on any of the local streets within the North Fair Oaks neighborhood bounded by Edison Way, First Avenue, Middlefield Road, and Marsh Road.

In the project vicinity, the following streets have no sidewalks:

- Edison Way between 5th Avenue and 11th Avenue
- Fair Oaks Avenue
- 2nd Avenue between Middlefield Road and Edison Way
- Woodside Road
- Marsh Road between Middlefield Road and Fair Oaks Avenue
- Middlefield Road between 9th Avenue and Marsh Road

Existing Transit Service

Existing transit service to the study area is provided by the San Mateo County Transit District (SamTrans). The existing SamTrans service is described below and shown on Figure 4. Route 79 is the only bus route that has stops within the typically assumed walking distance (one quarter mile) in the morning. Route 296 has stops 0.4 mile from the school and all other bus routes have stops more than one-half mile away. Because Route 79 only runs on school days and has limited runs in the morning and afternoon and the school is not near a major transit center, the project site is considered to be unserved by transit.

Route 79 only runs on school days between 17th Avenue/Florence Street and Kennedy Middle School in Redwood City. In the morning, it provides three westbound runs between 7:03 a.m. and 8:08 a.m. with the closest stop on Fair Oaks Avenue at 5th Avenue, about one quarter mile from the school. In the afternoon, it provides three eastbound runs between 2:03 p.m. and 4:42 p.m. with the closest stop on 5th Avenue at Spring Street, about 0.4 mile from the school.

Route 82 only runs on school days between Bay Road/Marsh Road and Hillview Middle School in Menlo Park, with the closest stop on Bay Road near Marsh Road about 0.9 mile from the school. It provides one run in the morning and two runs in the afternoon.

Route 88 only runs on school days between Bay Road/Marsh Road and Encinal Elementary School in Atherton, with the closest stop on Bay Road near Marsh Road about 0.9 mile from the school. It provides one run in the morning and two runs in the afternoon.

Route 270 provides weekday and Saturday service between the Redwood City Transit Center and East Bayshore Road/Haven Avenue in Redwood City and stops along Florence Street and Bay Road in the project vicinity. It runs at 60-minute headways between 6:30 a.m. and 7:12 p.m. on weekdays. The closest stop is located on Bay Road near 5th Avenue, about 0.6 mile from the school.

Route 276 provides weekday service between the Redwood City Transit Center and 17th Avenue/Florence Street in Redwood City and stops along Florence Street and Bay Road in the project vicinity. It runs at 60-minute headways between 6:00 a.m. and 6:46 p.m. The closest stop is located on Bay Road near 5th Avenue, about 0.6 mile from the school.

Route 296 provides weekday and weekend service between Redwood City Transit Center and East Bayshore Road/Donohoe Street in East Palo Alto and stops along Middlefield Road in the project vicinity. On weekdays, it runs all day from 3:46 a.m. to 2:44 a.m. with 17-minute headways during the peak commute hours and daytime hours. The closest stop is located on Middlefield Road near 5th Avenue, about 0.4 mile from the school.

Route ECR is an express/multi-city route that provides weekday and weekend service between the Daly City BART Station and the Palo Alto Transit Center and stops along El Camino Real in the project vicinity. On weekdays, it runs all day with 20- to 25-minute headways during the peak commute hours and daytime hours. The closest stop is located on El Camino Real near 5th Avenue, about 0.9 mile from the school.

Existing Lane Configurations and Traffic Volumes

The existing lane configurations at the study intersections were obtained from field observations (see Figure 5). Existing traffic volumes were obtained from manual peak-hour turning-movement counts on weekdays in September 2018 (see Figure 6). Peak-hour intersection turning movement counts of vehicles, bicycles, and pedestrians were collected during the morning peak period (7:00 - 9:00 AM) and afternoon school peak period (2:00 - 4:00 PM). The 2:00 - 4:00 PM peak period was selected to account for traffic levels encountered during typical school pick-up activity occurring during this time period. The traffic counts are included in Appendix B.

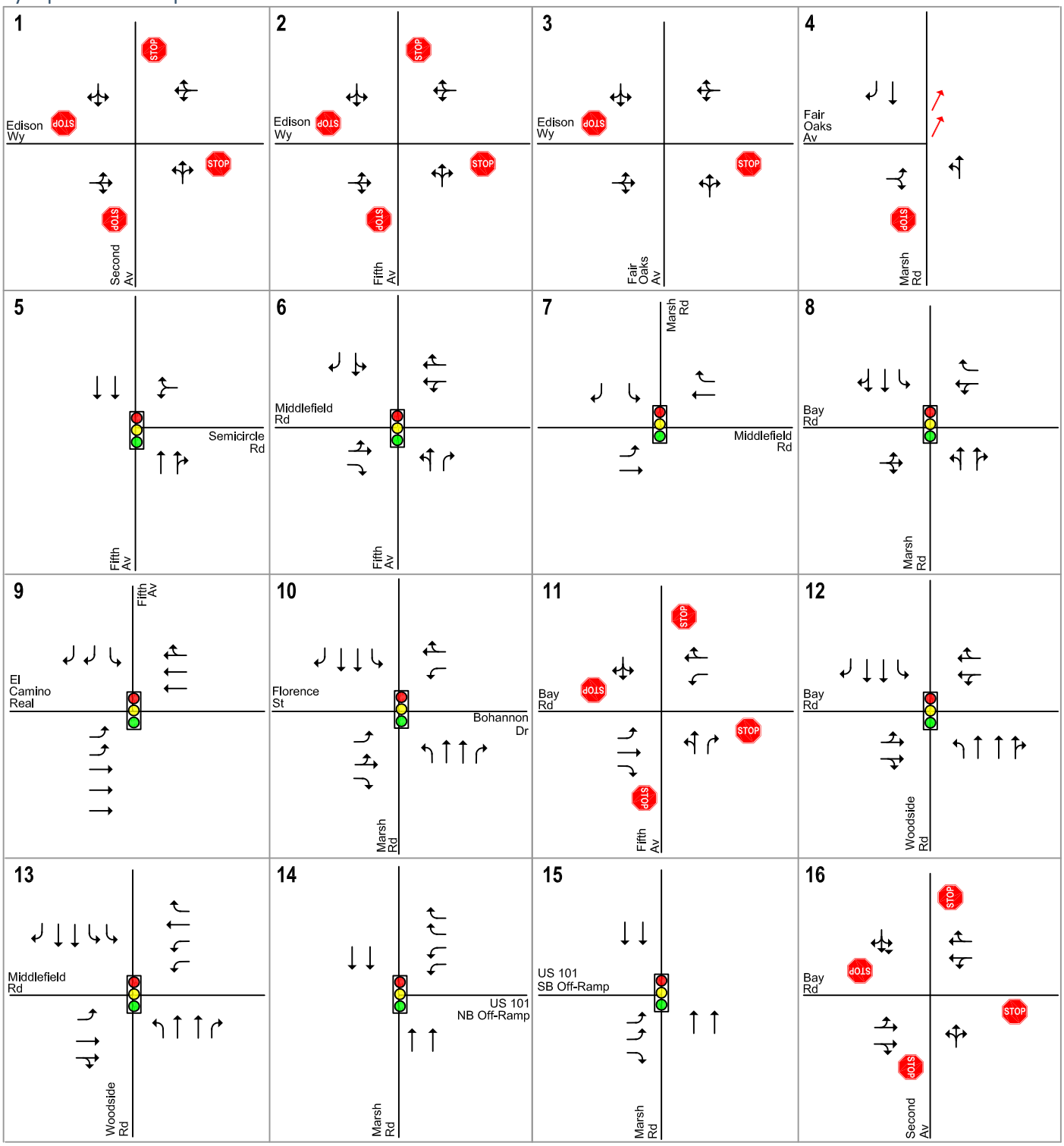
Existing Intersection Levels of Service

The results of the intersection level of service analysis (Table 3) show that under the existing conditions, all study intersections are operating within applicable level of service standards, with the following exceptions:

- Woodside Road and Bay Road (Redwood City): LOS F in the AM peak hour.
- 2nd Avenue and Middlefield Road (San Mateo County): LOS E in the AM peak hour on the worst stop-controlled approach.

At the intersection of Woodside Road and Bay Road, due to the short distance to the Woodside Road/Broadway Street intersection and the US 101/Woodside Road interchange, the northbound vehicle queues from the downstream intersections often are not cleared during green lights and affect the northbound traffic flow at the intersection. To be consistent with the City of Redwood City Broadway Plaza Draft EIR (November 2018), the level of service calculations were adjusted to reflect the northbound vehicle queues and delay at the Woodside Road/Bay Road intersection.

The level of service calculation sheets are included in Appendix D.



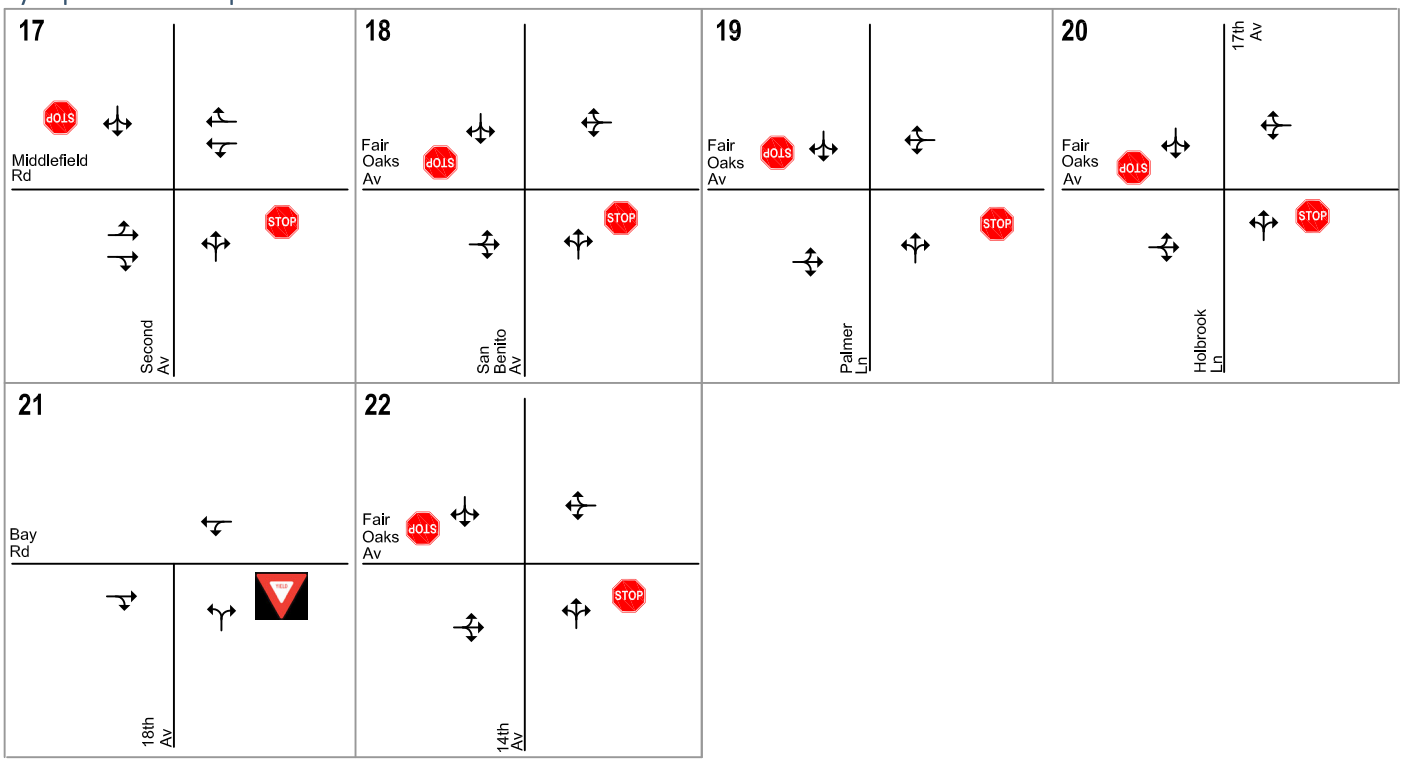
LEGEND

= Stop Controlled Intersection

= Signalized Intersection

Figure 5
Existing Lane Configurations

NORTH
Not to Scale



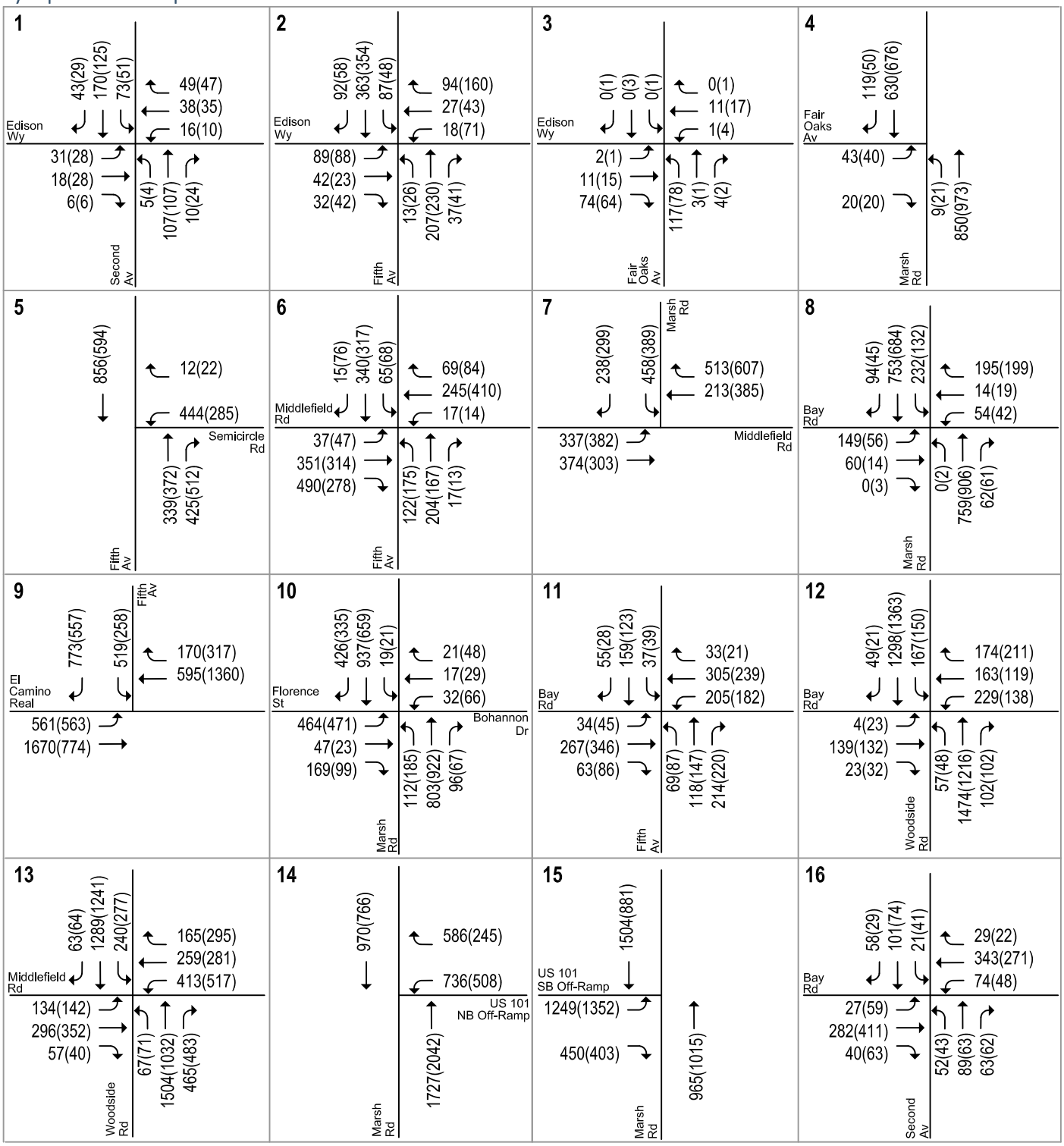
LEGEND

= Stop Controlled Intersection

= Signalized Intersection

= Yield Sign

Figure 5
Existing Lane Configurations



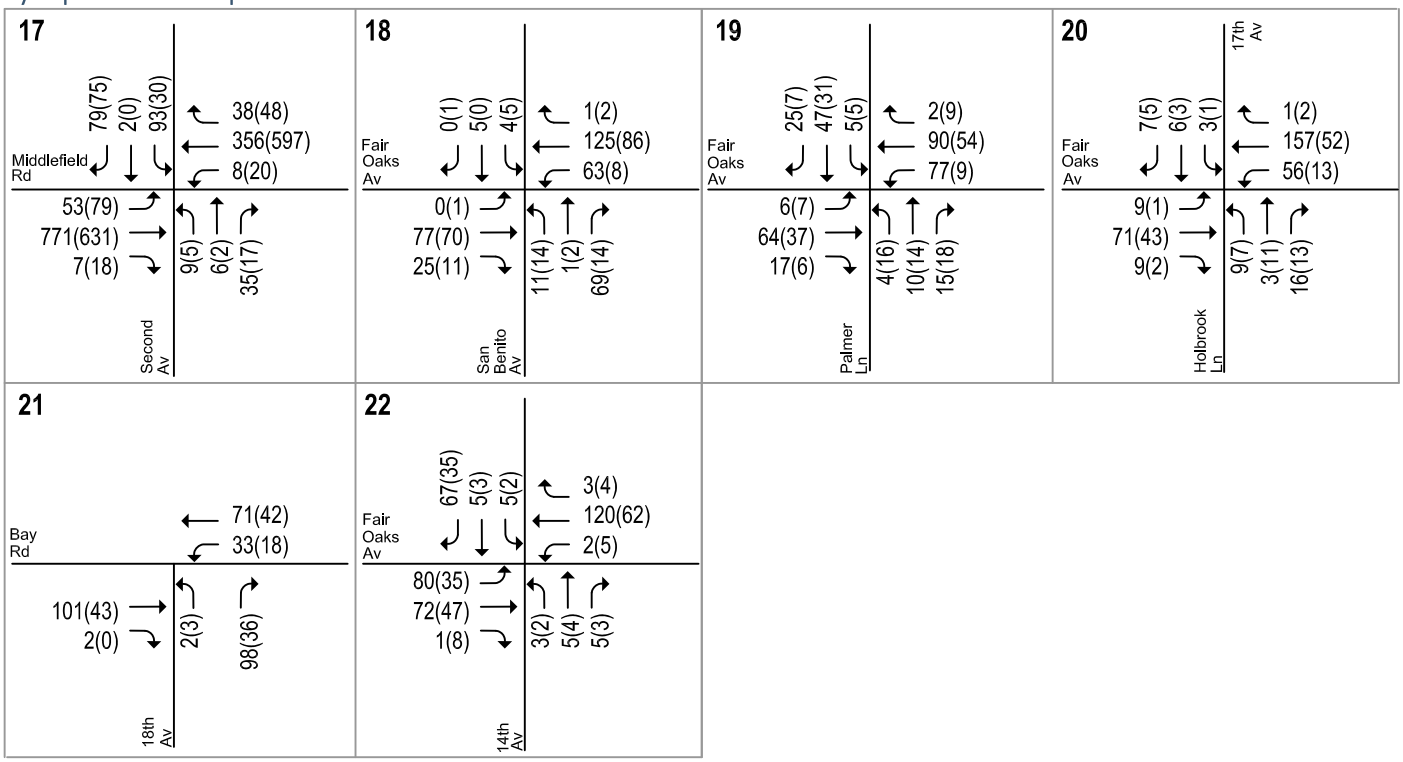
LEGEND

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

Figure 6
Existing Traffic Volumes

HEXAGON

NORTH
Not to Scale



LEGEND

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

Figure 6
Existing Traffic Volumes

Table 3
Existing Intersection Levels of Service

ID	Intersection (Jurisdiction)	Control	Peak Hour	Average[1] Delay (sec.)	Average[1] LOS	Worst[2] Delay (sec.)	Worst[2] LOS
1	2nd Ave and Edison Wy	AWSC	AM	9.1	A	9.8	A
	(San Mateo County)		PM	8.5	A	8.9	A
2	5th Ave and Edison Wy	AWSC	AM	18.3	C	24.9	C
	(San Mateo County)		PM	18.8	C	25.0	C
3	Fair Oaks Ave and Edison Wy	OWSC	AM			9.5	A
	(San Mateo County)		PM			9.4	A
4	Fair Oaks Ave and Marsh Rd	OWSC	AM			16.9	C
	(San Mateo County)		PM			18.8	C
5	5th Ave and Semicircle Rd	Signal	AM	7.3	A	10.1	A
	(San Mateo County)		PM	5.4	A	8.7	A
6	5th Ave and Middlefield Rd	Signal	AM	24.9	C	36.8	D
	(San Mateo County)		PM	26.2	C	37.4	D
7	Marsh Rd and Middlefield Rd	Signal	AM	29.3	C		
	(Atherton)		PM	32.1	C		
8	Marsh Rd and Bay Rd	Signal	AM	24.1	C		
	(Menlo Park)		PM	33.2	C		
9	5th Ave and El Camino Real	Signal	AM	19.2	B	34.3	C
	(San Mateo County)		PM	19.7	B	31.9	C
10	Marsh Rd and Florence St	Signal	AM	37.9	D		
	(Menlo Park)		PM	39.0	D		
11	5th Ave and Bay Rd	AWSC	AM	30.6	D		
	(Redwood City)		PM	29.1	D		
12	Woodside Rd and Bay Rd	Signal	AM	**81.2**	**F**		
	(Redwood City)		PM	47.1	D		
13	Woodside Rd and Middlefield Rd	Signal	AM	41.9	D		
	(Redwood City/CMP)		PM	35.3	D		
14	Marsh Rd and US 101 NB Off-ramp	Signal	AM	17.6	B		
	(Menlo Park)		PM	13.5	B		
15	Marsh Rd and US 101 SB Off-ramp	Signal	AM	17.4	B		
	(Menlo Park)		PM	17.8	B		
16	2nd Ave and Bay Rd	AWSC	AM	12.7	B		
	(Redwood City)		PM	12.6	B		
17	2nd Ave and Middlefield Rd	TWSC	AM			**40.9**	**E**
	(San Mateo County)		PM			26.3	D
18	San Benito Ave and Fair Oaks Ave	TWSC	AM			11.9	B
	(San Mateo County)		PM			9.7	A
19	Palmer Ln and Fair Oaks Ave	TWSC	AM			11.5	B
	(San Mateo County)		PM			9.9	A
20	Holbrook Ln and Fair Oaks Ave	TWSC	AM			10.7	B
	(San Mateo County)		PM			9.3	A

ID	Intersection (Jurisdiction)	Control	Peak Hour	Average[1] Delay (sec.)	Average[1] LOS	Worst[2] Delay (sec.)	Worst[2] LOS
21	18th Ave and Bay Rd	OWSC[3]	AM			9.3	A
	(San Mateo County)		PM			8.7	A
22	14th Avee and Fair Oaks Ave	TWSC	AM			10.8	B
	(San Mateo County)		PM			9.8	A

Notes:
AWSC = all-way stop controlled intersection; TWSC = two-way stop controlled intersection;
OWSC = one-way stop controlled intersection.
1. Average intersection delay and LOS are reported for signalized and all-way stop controlled intersections.
2. Worst movement delay and LOS are reported for signalized and unsignalized intersections in the San Mateo County.
3. The intersection of 18th Ave and Bay Rd is yield controlled for the northbound appporach, but analyzed as an OWSC.
Bold indicates a substandard level of service.

3.
Existing Plus Project Conditions

This chapter describes existing plus project traffic conditions, including the method by which project traffic is estimated.

Roadway Network Under Existing Plus Project Conditions

It is assumed in this analysis that the roadway network under existing plus project conditions would be the same as the existing roadway network.

Project Trip Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the site is estimated for the AM and PM peak hours. As part of the project trip distribution, an estimate is made of the directions to and from which the project trips would travel. In the project trip assignment, the project trips are assigned to specific streets. These procedures are described further in the following sections.

Trip Generation

The magnitude of traffic produced by a new development is typically estimated by applying the size of the project to the applicable trip generation rates contained in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*. However, because the project involves the expansion of the existing school operations and the ITE manual does not provide trip rates that would truly represent the existing school operations, the trips generated by the proposed school expansion were estimated based on trip generation rates obtained from a trip generation count at the existing school in September 2018. The trip generation counts are included in Appendix C.

Table 4 shows the trip generation counts were 275 trips (157 inbound and 118 outbound) during the AM peak hour and 203 trips (101 inbound and 102 outbound) during the PM school peak hour. During the trip generation counts in 2018, the school operated 9 shuttles serving 72 students in the morning and 4 shuttles serving 20 students in the afternoon. In the morning, the shuttle program resulted in 182 non-shuttle students. The 275 AM peak-hour trips can be calculated at 1.51 trips per non-shuttle student, which calculates to about 45 students carpooling (25 percent of non-shuttle students).

Based on the trip counts, at the beginning of the school day (AM peak hour between 8:00 and 9:00 AM) the trip generation rate for the existing school operation was calculated to be 1.08 trips per student with 57% inbound trips and 43% outbound trips. At the end of the school day (school PM peak hour between 3:00 and 4:00 PM), the trip generation rate was calculated to be 0.8 trips per student with the split at 50% inbound and 50% outbound. The trip rates account for the shuttle program that is being implemented at the school.

With the expansion, the school would increase the enrollment to 310 students. Off the 310 students, 30 students would be pre-school students that would start at the same hour as K-8 students and would be dismissed at 2:00 PM. Pre-school students would not take shuttles. The school expects that one third of pre-school students to carpool with siblings, so the 20 non-carpooling pre-school students (two thirds of 30 pre-school students) are expected to generate 40 AM peak-hour trips (20 non-carpooling students x 2 trips per student) and would not generate any school PM peak-hour trips. Therefore, a rate of 1.33 trips per student was calculated for the pre-school students (40 trips / 30 students). The school trips for the 280 K-8 students were estimated using the trip generation rates observed for the current school. The proposed expansion is estimated to generate an increase of 68 AM peak-hour trips (36 inbound and 32 outbound) and 21 school PM peak-hour trips (10 inbound and 11 outbound).

Table 4
Project Trip Generation Estimates

			AM Peak Hour						School PM Peak Hour					
			Pk-Hr	Splits					Pk-Hr	Splits				
Land Use	Size	Units	Rate	In	Out	In	Out	Total	Rate	In	Out	In	Out	Total
Proposed Use														
Private K-8[1]	280	students	1.08	57%	43%	173	130	303	0.80	50%	50%	111	113	224
Pre-School[2]	30	students	1.33	50%	50%	20	20	40				0	0	0
Gross Proposed Use	*310*					*193*	*150*	*343*				*111*	*113*	*224*
Existing Use														
Private K-8[1]	254	students	1.08	57%	43%	(157)	(118)	(275)	0.80	50%	50%	(101)	(102)	(203)
Net New Trips:						**36**	**32**	**68**				**10**	**11**	**21**

Notes:
1. Peak-hour trips are based on the trip generation counts conducted at the existing school in September 2018.
2. The AM peak-hour trips reflect 1/3 of pre-school students that would carpool. Pre-school students would not generate the school PM peak-hour trips because they would be dismissed at 2:00 PM.

School Shuttle Program

The school currently operates 10 shuttles serving 87 students in the morning and 5 shuttles serving 36 students in the afternoon.

Morning Shuttle Routes

All shuttles arrive at the school at around 8:30 AM.

- Burlingame/Hillsborough (1 Van/8 Students) – Pick-up Location: Cal Trans Park & Ride, 1698 Golf Course Drive, Burlingame, CA 94010. Departure Time: 7:50 AM.
- Los Altos/Mountain View (1 Van/10 Students) – Pick-up Location: McKenzie Park Tennis Court, 707 Fremont Avenue, Los Altos, CA 94024. Departure Time: 7:45 AM.
- Palo Alto 1 (6 Vans/45 Students) – Pick-up Location: Palo Alto Art Center, 1313 Newel Road, Palo Alto, CA 94303. Departure Time: 8:10 AM.

- Sunnyvale/Palo Alto 2 (1 Van/11 Students) – Pick-up Location #1: Serra Park Tennis Courts, 1563 Hollenbeck Ave, Sunnyvale, CA 94085. Departure Time: 7:40 AM. Pick-up Location #2: El Camino Park, 155 El Camino Real, Palo Alto, CA 94301. Departure Time: 8:10 AM.
- Woodside (1 Vans/13 Students) – Pick-up Location: Park & Ride, Woodside Road & I-280. Departure Time: 8:00 AM.

Afternoon Shuttle Routes

All shuttles depart the school at 3:50 PM on Monday through Thursday and at 2:50 PM on Friday.

- Burlingame/Hillsborough (1 Van/7 Students): Drop-off Location: Cal Trans Park & Ride, 1698 Golf Course Drive, Burlingame, CA 94010. Estimated Drop-off Time: 4:10 PM on Monday – Thursday and 3:10 PM on Friday.
- Los Altos/Mountain View (1 Van/9 Students) – Drop-off Location: McKenzie Park Tennis Court, 707 Fremont Avenue, Los Altos, CA 94024. Estimated Drop-off Time: 4:15 PM on Monday – Thursday and 3:15 PM on Friday.
- Palo Alto 1 (3 Vans/20 Students): Drop-off Location: Palo Alto Art Center, 1313 Newel Road, Palo Alto, CA 94303. Estimated Drop-off Time: 4:05 PM on Monday – Thursday and 3:05 PM on Friday.

Trip Distribution and Assignment

The trip distribution pattern (see Figure 3) for the proposed expansion was estimated based on the trip distribution pattern developed for the Synapse School's previous expansion (TIA prepared in 2017). The net peak-hour trips generated by the project were assigned to the roadway system in accordance with the trip distribution pattern shown. Figure 8 shows the assignment of project trips at each study intersection.

Existing Plus Project Traffic Volumes

The new project trips, as represented in the above project trip assignment, were added to existing traffic volumes to obtain existing plus project traffic volumes. The existing plus project traffic volumes are shown in Figure 9.

Existing Plus Project Intersection Levels of Service

The results of the intersection level of service analysis (see Table 6) show that the same study intersections would operate at unacceptable levels of service as under existing conditions. The added project trips would not cause these intersections to exceed the applicable significance impact thresholds. All other study intersections would operate at acceptable levels during both the AM and PM peak hours of traffic. Therefore, the project would not result in a significant traffic impact under existing plus project conditions.

The level of service calculation sheets are included in Appendix D.

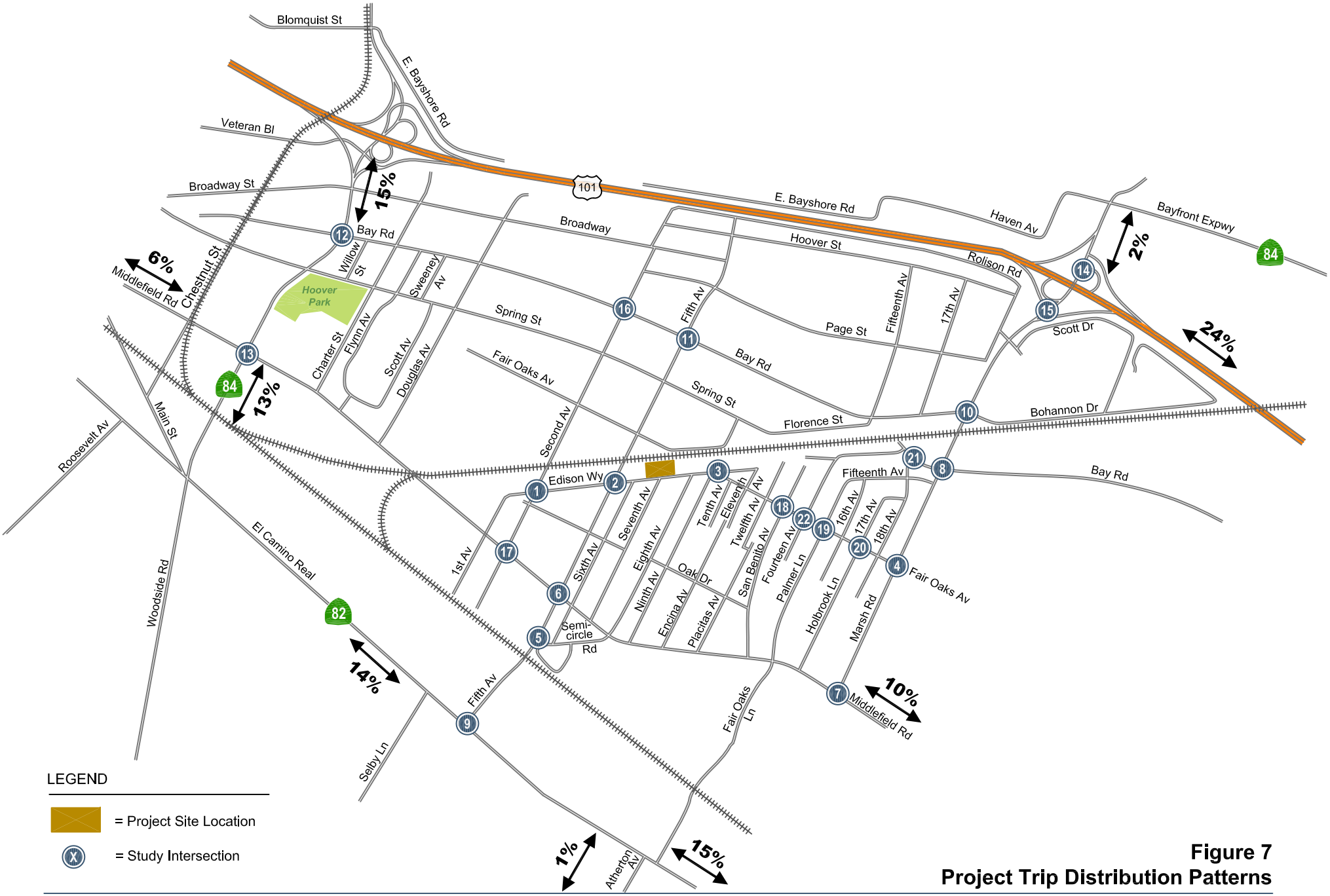


Figure 7
Project Trip Distribution Patterns

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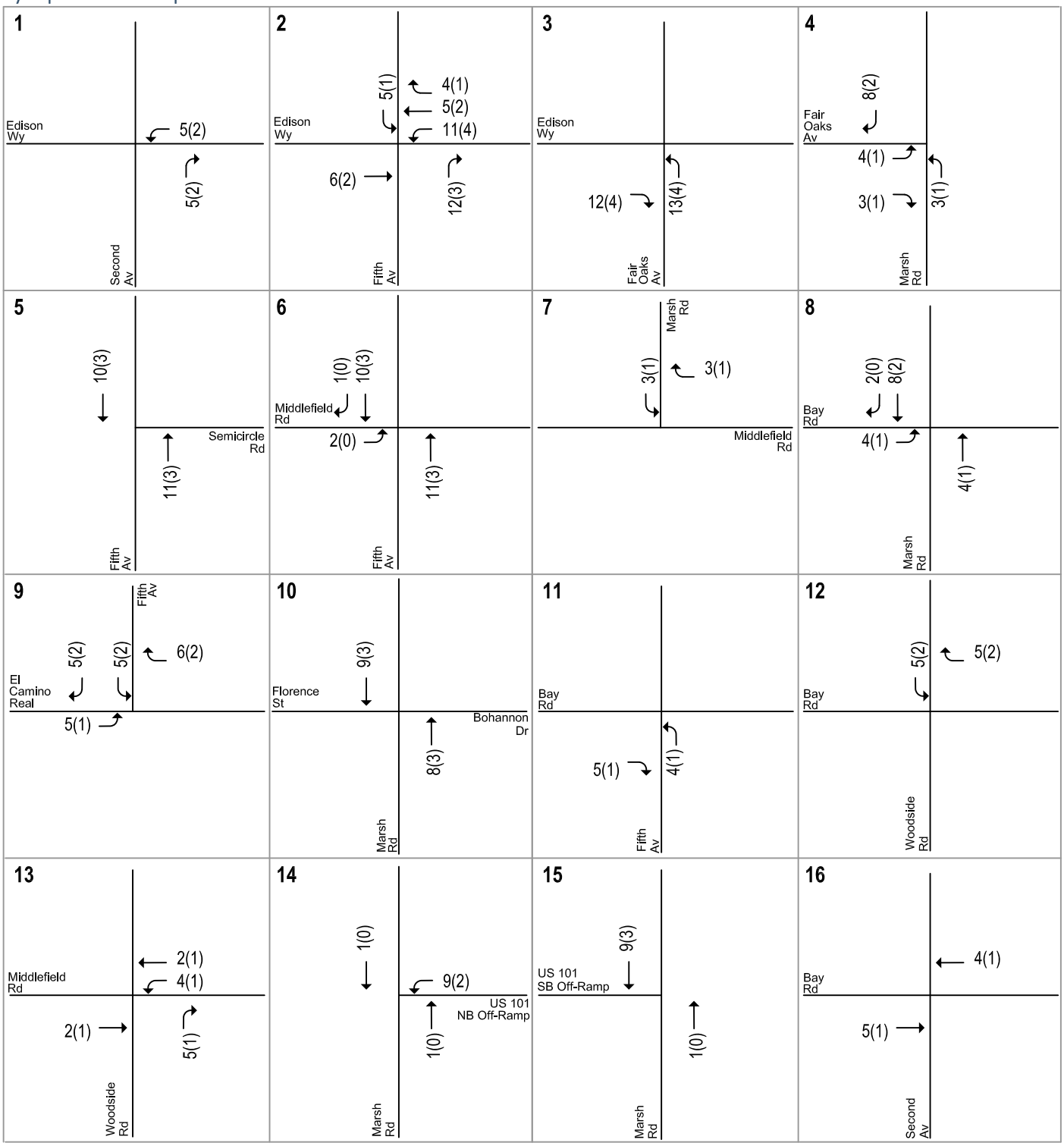
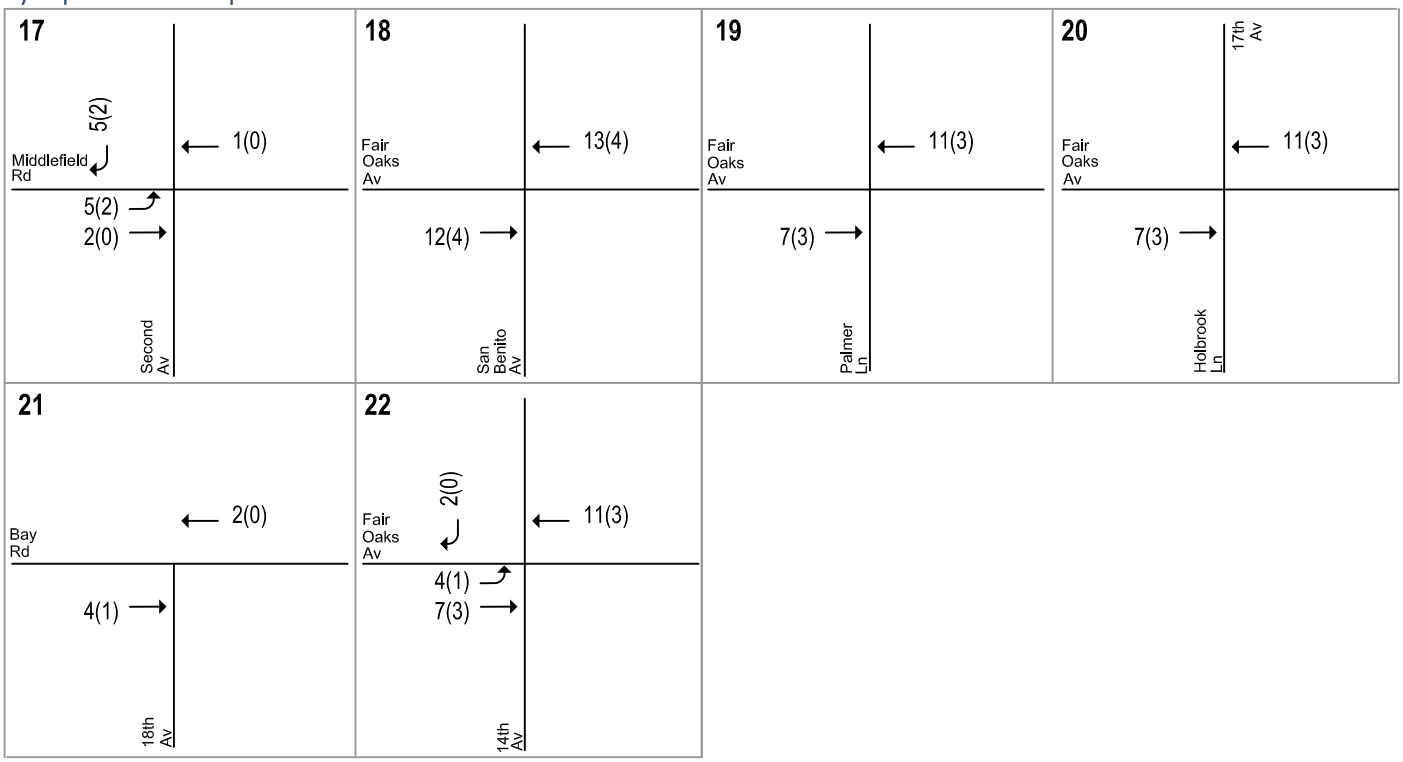


LEGEND

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

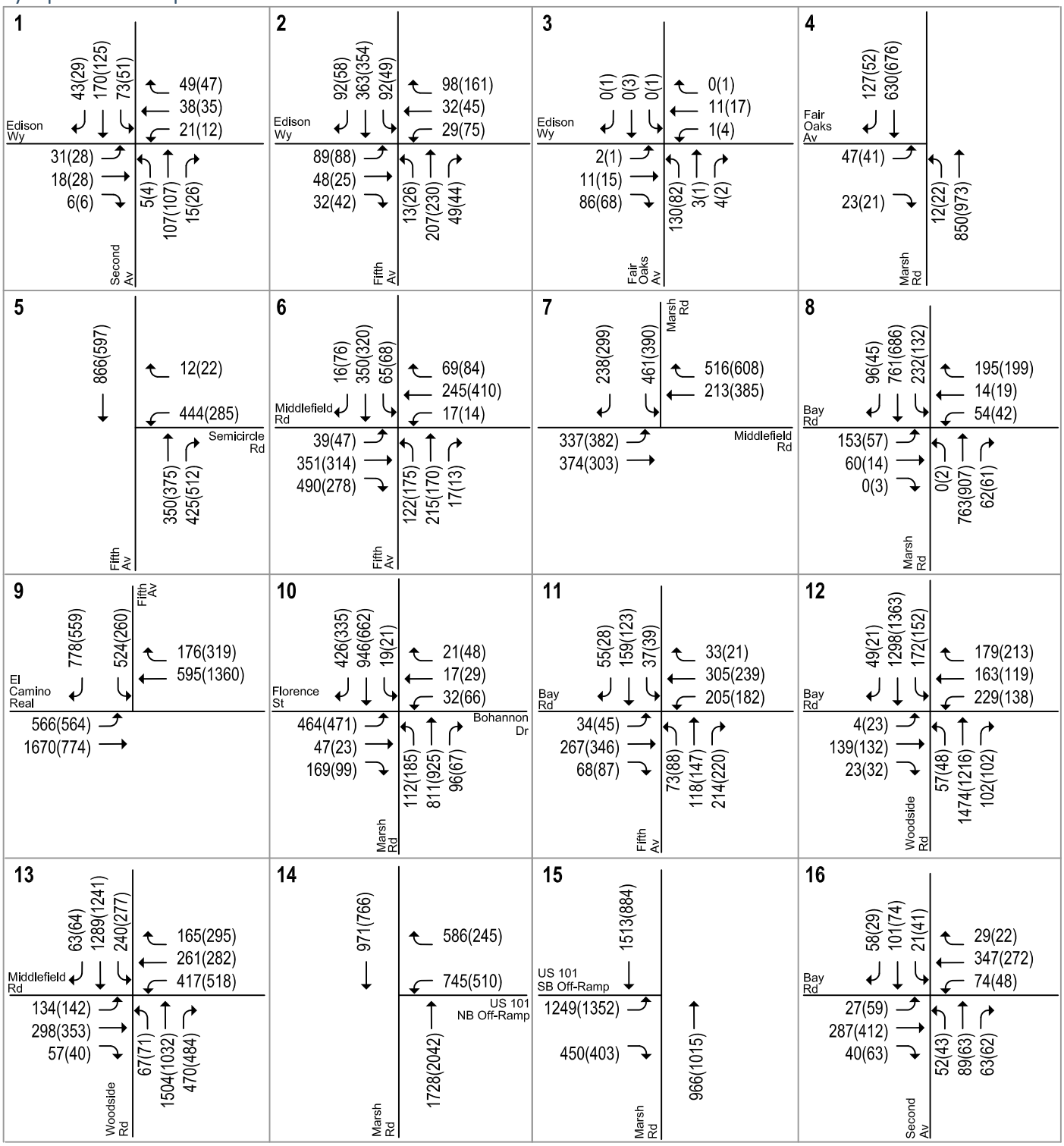
Figure 8
Project Trip Assignment



LEGEND

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

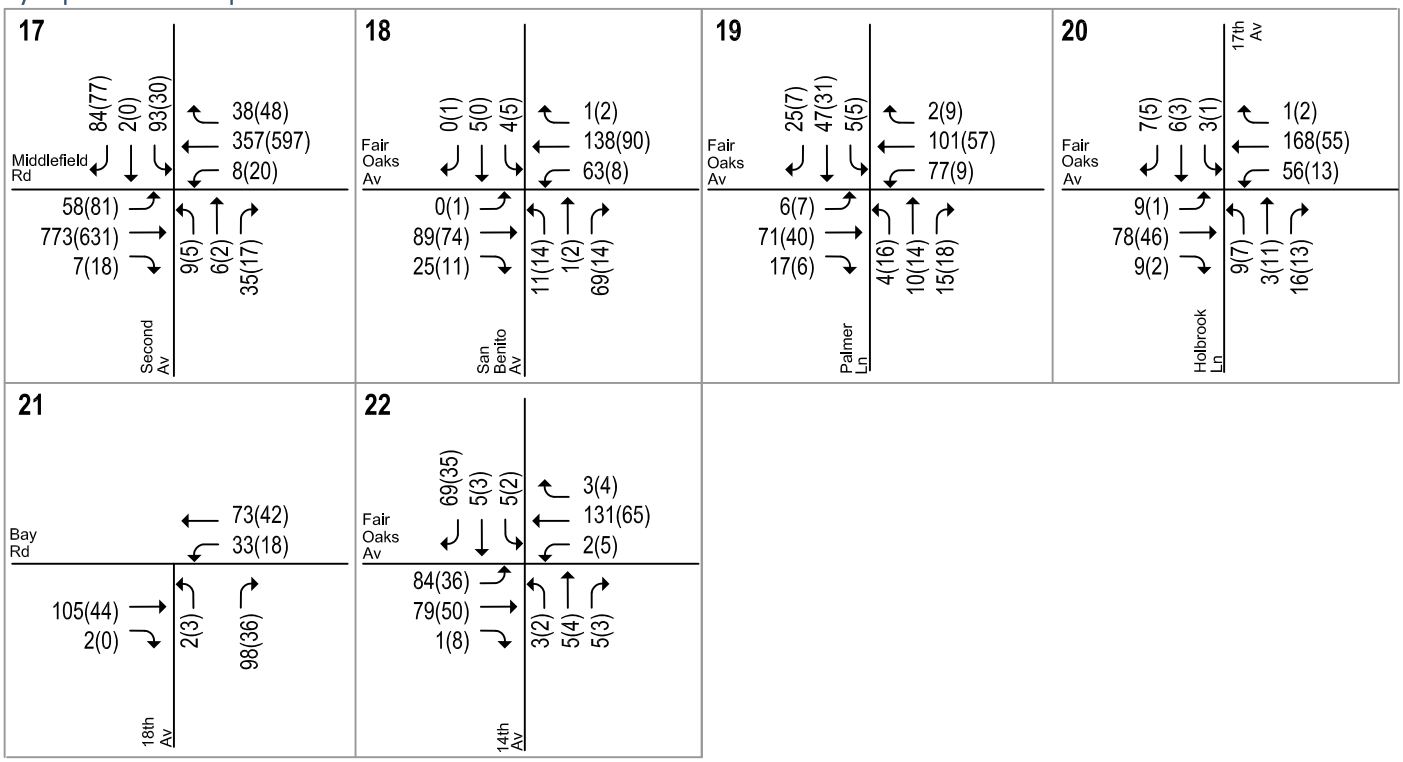
Figure 8
Project Trip Assignment



LEGEND

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

Figure 9
Existing Plus Project Traffic Volumes



LEGEND

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

Figure 9
Existing Plus Project Traffic Volumes

Table 5
Existing Plus Project Intersection Levels of Service

				Existing				Existing + Project			
				Average[1]		Worst[2]		Average[1]		Worst[2]	
ID	Intersection (Jurisdiction)	Control	Peak Hour	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS
1	2nd Ave and Edison Wy	AWSC	AM	9.1	A	9.8	A	9.2	A	9.9	A
	(San Mateo County)		PM	8.5	A	8.9	A	8.5	A	8.9	A
2	5th Ave and Edison Wy	AWSC	AM	18.3	C	24.9	C	20.1	C	28.1	D
	(San Mateo County)		PM	18.8	C	25.0	C	19.3	C	25.8	D
3	Fair Oaks Ave and Edison Wy	OWSC	AM			9.5	A			9.6	A
	(San Mateo County)		PM			9.4	A			9.4	A
4	Fair Oaks Ave and Marsh Rd	OWSC	AM			16.9	C			17.3	C
	(San Mateo County)		PM			18.8	C			18.9	C
5	5th Ave and Semicircle Rd	Signal	AM	7.3	A	10.1	A	7.3	A	10.2	B
	(San Mateo County)		PM	5.4	A	8.7	A	5.4	A	8.7	A
6	5th Ave and Middlefield Rd	Signal	AM	24.9	C	36.8	D	25.5	C	37.0	D
	(San Mateo County)		PM	26.2	C	37.4	D	26.4	C	37.6	D
7	Marsh Rd and Middlefield Rd	Signal	AM	29.3	C			29.5	C		
	(Atherton)		PM	32.1	C			32.2	C		
8	Marsh Rd and Bay Rd	Signal	AM	24.1	C			24.2	C		
	(Menlo Park)		PM	33.2	C			33.2	C		
9	5th Ave and El Camino Real	Signal	AM	19.2	B	34.3	C	19.4	B	34.6	C
	(San Mateo County)		PM	19.7	B	31.9	C	19.8	B	32.0	C
10	Marsh Rd and Florence St	Signal	AM	37.9	D			37.8	D		
	(Menlo Park)		PM	39.0	D			39.0	D		
11	5th Ave and Bay Rd	AWSC	AM	30.6	D			30.9	D		
	(Redwood City)		PM	29.1	D			29.2	D		
12	Woodside Rd and Bay Rd	Signal	AM	**81.2**	**F**			**81.7**	**F**		
	(Redwood City)		PM	47.1	D			47.2	D		
13	Woodside Rd and Middlefield Rd	Signal	AM	41.9	D			42.2	D		
	(Redwood City/CMP)		PM	35.3	D			35.3	D		
14	Marsh Rd and US 101 NB Off-ramp	Signal	AM	17.6	B			17.6	B		
	(Menlo Park)		PM	13.5	B			13.5	B		
15	Marsh Rd and US 101 SB Off-ramp	Signal	AM	17.4	B			17.4	B		
	(Menlo Park)		PM	17.8	B			17.8	B		
16	2nd Ave and Bay Rd	AWSC	AM	12.7	B			12.8	B		
	(Redwood City)		PM	12.6	B			12.6	B		
17	2nd Ave and Middlefield Rd	TWSC	AM			**40.9**	**E**			**43.2**	**E**
	(San Mateo County)		PM			26.3	D			26.3	D
18	San Benito Ave and Fair Oaks Ave	TWSC	AM			11.9	B			12.2	B
	(San Mateo County)		PM			9.7	A			9.7	A
19	Palmer Ln and Fair Oaks Ave	TWSC	AM			11.5	B			11.6	B
	(San Mateo County)		PM			9.9	A			9.9	A
20	Holbrook Ln and Fair Oaks Ave	TWSC	AM			10.7	B			10.8	B
	(San Mateo County)		PM			9.3	A			9.3	A

ID	Intersection (Jurisdiction)	Control	Peak Hour	Existing				Existing + Project			
				Average[1]		Worst[2]		Average[1]		Worst[2]	
				Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS
21	18th Ave and Bay Rd	OWSC[3]	AM			9.3	A			9.3	A
	(San Mateo County)		PM			8.7	A			8.7	A
22	14th Avee and Fair Oaks Ave	TWSC	AM			10.8	B			11.0	B
	(San Mateo County)		PM			9.8	A			9.8	A

Notes:
1. Average intersection delay and LOS are reported for signalized and all-way stop controlled intersections.
2. Worst movement delay and LOS are reported for signalized and unsignalized intersections in the San Mateo County.
3. The intersection of 18th Ave and Bay Rd is yield controlled for the northbound appporach, but analyzed as an OWSC.
Bold indicates a substandard level of service.

4. Background Conditions

This chapter describes background traffic conditions, which are defined as conditions that include approved development projects in the study area. Traffic volumes for background conditions comprise volumes from the existing traffic counts plus traffic generated by approved projects in the vicinity of the project site. This chapter describes the procedure used to determine background traffic volumes and the resulting traffic conditions.

Roadway Network Under Background Conditions

It is assumed in this analysis that the roadway network under background conditions would be the same as the existing roadway network.

Approved Developments

Background traffic volumes were forecast by adding trips from approved but not yet completed projects to the existing volumes. The list of approved projects was obtained from the Cities of Redwood City and Menlo Park. The following projects were considered under background conditions because they would contribute background trips to the study intersections.

- Kaiser Medical Office Building 2 (1175 Marshall Street/905 Maple Street) – 197,800 s.f. medical office.
- W. L. Butler Headquarters (1629 Main Street) – 23,170 s.f. office building with two apartment units.
- Greystar IV (1409 El Camino Real) – 350 multi-family residential units with 2,900 s.f. retail.
- 851 Main St – 78,832 s.f. office and 6,900 s.f. retail.
- Broadway Station RWC (2075 Broadway Street) – 66,786 s.f. office and 26,729 s.f. retail.
- Stanford in Redwood City (405 Broadway Street) – 570,000 s.f. medical office with a fitness center and child care facility and related supporting facilities.
- Facebook Campus Expansion (300-309 Constitution Drive) – 962,400 s.f. office.
- Middle Plaza (500 El Camino Real) – 10,286 s.f. retail/restaurant, 142,840 s.f. non-medical office, and 215 residential units.
- Menlo Gateway (100-190 Independence Drive and 101-155 Constitution Drive) – 4,245 s.f. cafe/restaurant, 68,519 s.f. health club, 230-room hotel, 10,420 s.f. neighborhood-serving retail and community facilities, and 694,669 s.f. office and R&D.
- Station 1300 (1300 El Camino Real) – 220,000 s.f. commercial space and 183 residential units.

Background Traffic Volumes

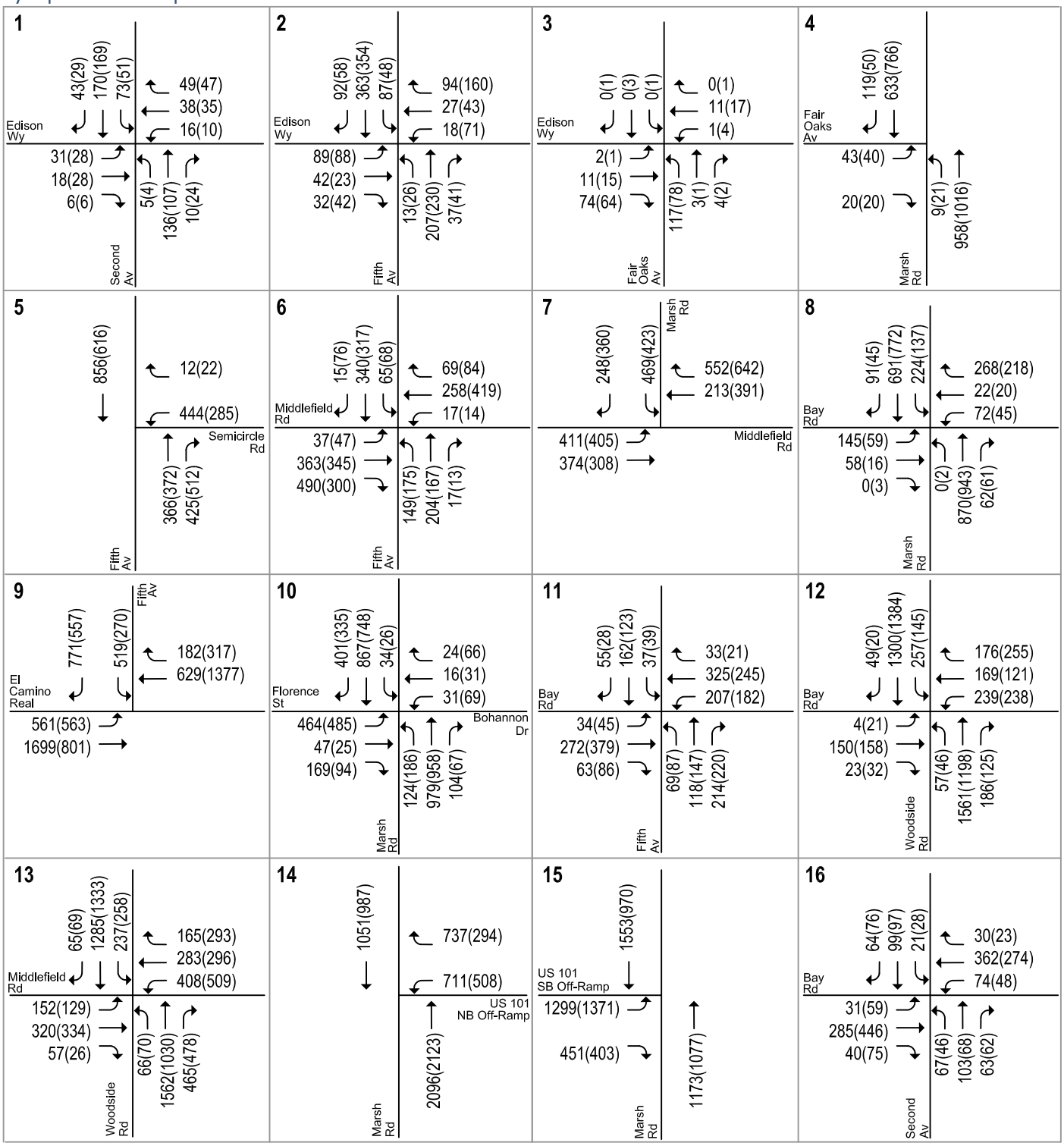
Background peak-hour traffic volumes (see Figure 10) were calculated by adding to existing volumes the estimated traffic from the approved developments. Vehicle trips for each of the projects were obtained from the project's TIA or environmental impact report (EIR). These traffic studies evaluate traffic conditions during the AM and PM peak hours of commute traffic. Therefore, the PM peak-hour trips were reduced by 10 percent to derive the school PM peak-hour trips. The estimated trips were assigned to the study intersections according to distributions identified in the development TIAs and EIRs.

Background Intersection Levels of Service

The results of the intersection level of service analysis (see Table 6) show that under background conditions, the following study intersections are expected to operate worse than acceptable jurisdictional standards:

- 5th Avenue and Bay Road (Redwood City): LOS E in the PM school peak hour.
- Woodside Road and Bay Road (Redwood City): LOS F in the AM peak hour and PM school peak hour.
- 2nd Avenue and Middlefield Road (San Mateo County): LOS E in the AM peak hour and LOS F in the PM school peak hour on the worst stop-controlled approach.

The level of service calculation sheets are included in Appendix D.



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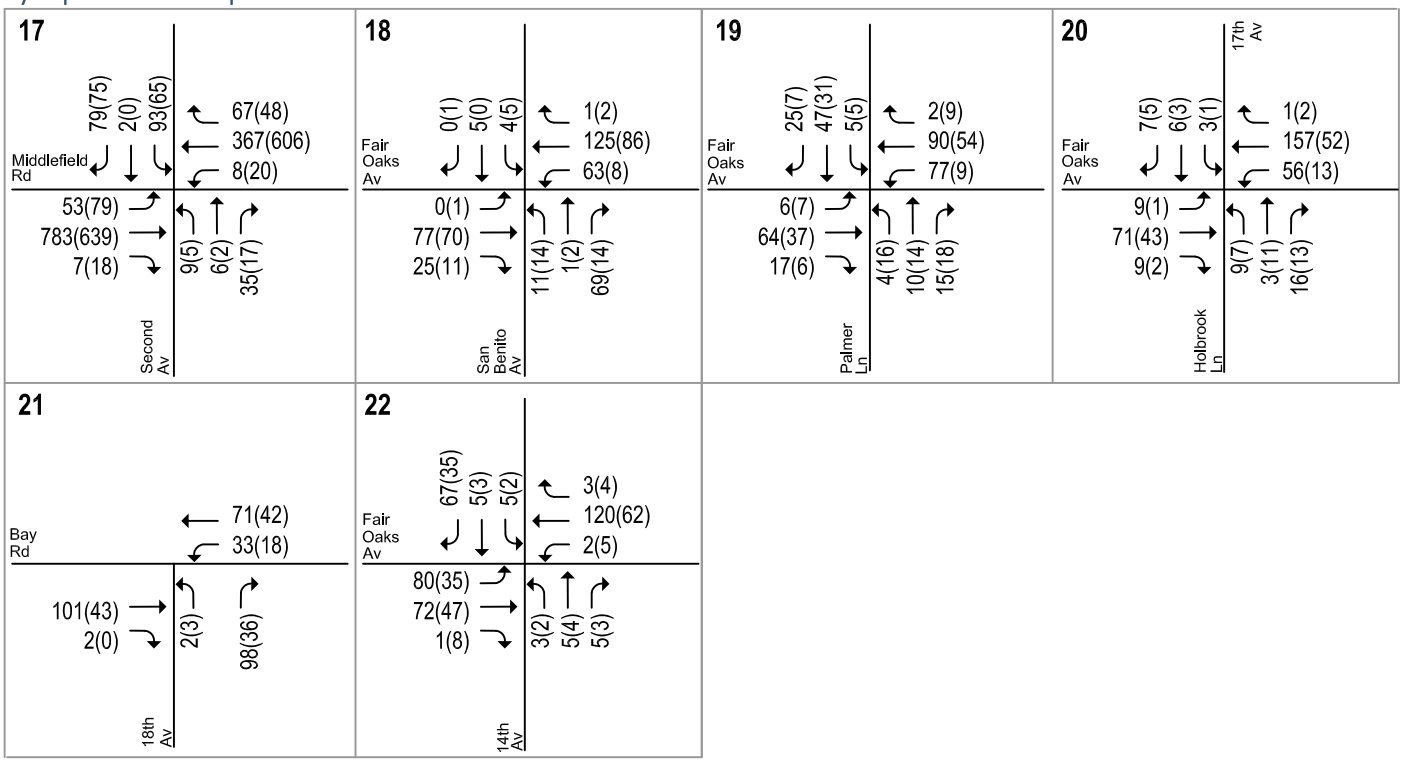
XX(XX) =AM(PM) Peak-Hour Traffic Volumes

Figure 10
Background Traffic Volumes



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

Figure 10
Background Traffic Volumes

Table 6
Intersection Levels of Service Under Background Conditions

ID	Intersection (Jurisdiction)	Control	Peak Hour	Existing Average[1] Delay (sec.)	Existing Average[1] LOS	Existing Worst[2] Delay (sec.)	Existing Worst[2] LOS	Background Average[1] Delay (sec.)	Background Average[1] LOS	Background Worst[2] Delay (sec.)	Background Worst[2] LOS
1	2nd Ave and Edison Wy	AWSC	AM	9.1	A	9.8	A	9.3	A	9.9	A
	(San Mateo County)		PM	8.5	A	8.9	A	8.8	A	9.4	A
2	5th Ave and Edison Wy	AWSC	AM	18.3	C	24.9	C	18.3	C	24.9	C
	(San Mateo County)		PM	18.8	C	25.0	C	18.8	C	25.0	C
3	Fair Oaks Ave and Edison Wy	OWSC	AM			9.5	A			9.5	A
	(San Mateo County)		PM			9.4	A			9.4	A
4	Fair Oaks Ave and Marsh Rd	OWSC	AM			16.9	C			18.0	C
	(San Mateo County)		PM			18.8	C			20.4	C
5	5th Ave and Semicircle Rd	Signal	AM	7.3	A	10.1	A	7.2	A	10.1	B
	(San Mateo County)		PM	5.4	A	8.7	A	5.4	A	8.8	A
6	5th Ave and Middlefield Rd	Signal	AM	24.9	C	36.8	D	25.4	C	36.7	D
	(San Mateo County)		PM	26.2	C	37.4	D	26.4	C	38.2	D
7	Marsh Rd and Middlefield Rd	Signal	AM	29.3	C			32.6	C		
	(Atherton)		PM	32.1	C			34.0	C		
8	Marsh Rd and Bay Rd	Signal	AM	24.1	C			25.2	C		
	(Menlo Park)		PM	33.2	C			32.2	C		
9	5th Ave and El Camino Real	Signal	AM	19.2	B	34.3	C	19.4	B	34.3	C
	(San Mateo County)		PM	19.7	B	31.9	C	19.9	B	32.2	C
10	Marsh Rd and Florence St	Signal	AM	37.9	D			36.4	D		
	(Menlo Park)		PM	39.0	D			39.0	D		
11	5th Ave and Bay Rd	AWSC	AM	30.6	D			34.3	D		
	(Redwood City)		PM	29.1	D			**36.1**	**E**		
12	Woodside Rd and Bay Rd	Signal	AM	**81.2**	**F**			**124.7**	**F**		
	(Redwood City)		PM	47.1	D			**95.1**	**F**		
13	Woodside Rd and Middlefield Rd	Signal	AM	41.9	D			43.9	D		
	(Redwood City/CMP)		PM	35.3	D			35.0	D		
14	Marsh Rd and US 101 NB Off-ramp	Signal	AM	17.6	B			25.0	C		
	(Menlo Park)		PM	13.5	B			13.8	B		
15	Marsh Rd and US 101 SB Off-ramp	Signal	AM	17.4	B			19.0	B		
	(Menlo Park)		PM	17.8	B			17.9	B		
16	2nd Ave and Bay Rd	AWSC	AM	12.7	B			13.7	B		
	(Redwood City)		PM	12.6	B			14.2	B		
17	2nd Ave and Middlefield Rd	TWSC	AM			**40.9**	**E**			**46.0**	**E**
	(San Mateo County)		PM			26.3	D			**57.9**	**F**
18	San Benito Ave and Fair Oaks Ave	TWSC	AM			11.9	B			11.9	B
	(San Mateo County)		PM			9.7	A			9.7	A
19	Palmer Ln and Fair Oaks Ave	TWSC	AM			11.5	B			11.5	B
	(San Mateo County)		PM			9.9	A			9.9	A
20	Holbrook Ln and Fair Oaks Ave	TWSC	AM			10.7	B			10.7	B
	(San Mateo County)		PM			9.3	A			9.3	A

ID	Intersection (Jurisdiction)	Control	Peak Hour	Existing Average[1] Delay (sec.)	Existing Average[1] LOS	Existing Worst[2] Delay (sec.)	Existing Worst[2] LOS	Background Average[1] Delay (sec.)	Background Average[1] LOS	Background Worst[2] Delay (sec.)	Background Worst[2] LOS
21	18th Ave and Bay Rd	OWSC[3]	AM			9.3	A			9.3	A
	(San Mateo County)		PM			8.7	A			8.7	A
22	14th Avee and Fair Oaks Ave	TWSC	AM			10.8	B			10.8	B
	(San Mateo County)		PM			9.8	A			9.8	A

Notes:
1. Average intersection delay and LOS are reported for signalized and all-way stop controlled intersections.
2. Worst movement delay and LOS are reported for signalized and unsignalized intersections in the San Mateo County.
3. The intersection of 18th Ave and Bay Rd is yield controlled for the northbound appporach, but analyzed as an OWSC.
Bold indicates a substandard level of service.

5.
Background Plus Project Conditions

This chapter describes near-term traffic conditions that most likely would occur when the project is completed with the proposed expansion. Background plus project conditions were evaluated relative to background conditions in order to determine potential project impacts. This traffic scenario represents a more congested traffic condition than the existing plus project scenario, since it includes traffic generated by approved but not yet completed developments in the area.

Roadway Network Under Background Plus Project Conditions

It is assumed in this analysis that the roadway network under background plus project conditions, including roadways and intersection lane configurations, would be the same as that described under existing conditions.

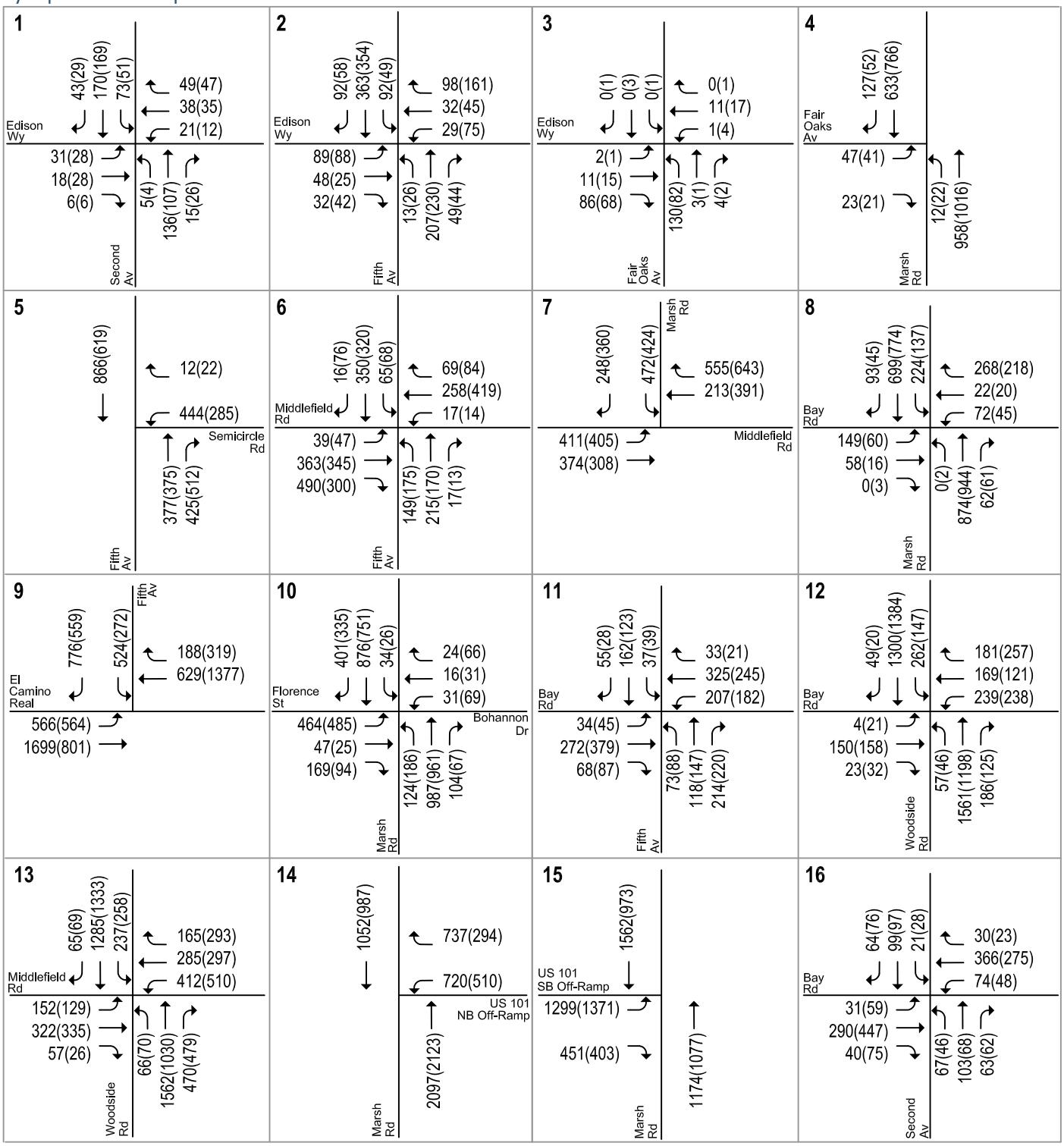
Background Plus Project Traffic Volumes

The project trip estimates, as previously described in Chapter 3 (see Table 4), were added to the background traffic volumes (described in Chapter 4) to derive the background plus project traffic volumes (see Figure 11).

Background Plus Project Intersection Level of Service Analysis

The results of the intersection level of service analysis (see Table 7) show that the same study intersections would operate at unacceptable levels of service as under background conditions. The added project trips would not cause these intersections to exceed the applicable significance impact thresholds. All other study intersections would operate at acceptable levels during both the AM and PM peak hours of traffic. Therefore, the project would not result in a significant traffic impact under background plus project conditions.

The level of service calculation sheets are included in Appendix D.



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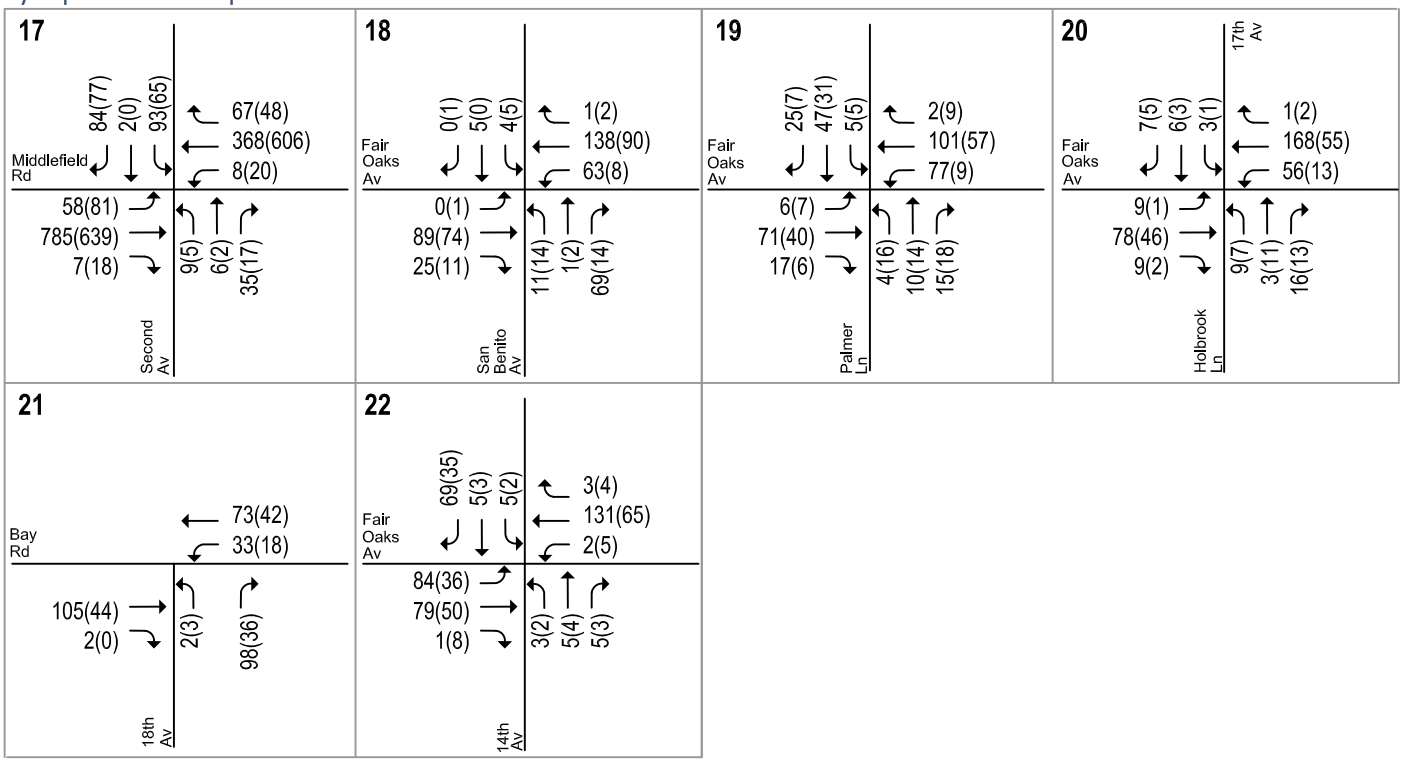
XX(XX) =AM(PM) Peak-Hour Traffic Volumes

Figure 11
Background Plus Project Traffic Volumes



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

Figure 11
Background Plus Project Traffic Volumes

Table 7
Background plus Project Intersection Levels of Service

ID	Intersection (Jurisdiction)	Control	Peak Hour	Background				Background + Project			
				Average[1]		Worst[2]		Average[1]		Worst[2]	
				Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS
1	2nd Ave and Edison Wy	AWSC	AM	9.3	A	9.9	A	9.3	A	10.0	A
	(San Mateo County)		PM	8.8	A	9.4	A	8.9	A	9.4	A
2	5th Ave and Edison Wy	AWSC	AM	18.3	C	24.9	C	20.1	C	28.1	D
	(San Mateo County)		PM	18.8	C	25.0	C	19.3	C	25.8	D
3	Fair Oaks Ave and Edison Wy	OWSC	AM			9.5	A			9.6	A
	(San Mateo County)		PM			9.4	A			9.4	A
4	Fair Oaks Ave and Marsh Rd	OWSC	AM			18.0	C			18.4	C
	(San Mateo County)		PM			20.4	C			20.5	C
5	5th Ave and Semicircle Rd	Signal	AM	7.2	A	10.1	B	7.3	A	10.2	B
	(San Mateo County)		PM	5.4	A	8.8	A	5.4	A	8.8	A
6	5th Ave and Middlefield Rd	Signal	AM	25.4	C	36.7	D	26.1	C	37.2	D
	(San Mateo County)		PM	26.4	C	38.2	D	26.6	C	38.3	D
7	Marsh Rd and Middlefield Rd	Signal	AM	32.6	C			32.8	C		
	(Atherton)		PM	34.0	C			34.0	C		
8	Marsh Rd and Bay Rd	Signal	AM	25.2	C			25.3	C		
	(Menlo Park)		PM	32.2	C			32.2	C		
9	5th Ave and El Camino Real	Signal	AM	19.4	B	34.3	C	19.6	B	34.6	C
	(San Mateo County)		PM	19.9	B	32.2	C	20.0	B	32.5	C
10	Marsh Rd and Florence St	Signal	AM	36.4	D			36.5	D		
	(Menlo Park)		PM	39.0	D			39.0	D		
11	5th Ave and Bay Rd	AWSC	AM	34.3	D			34.7	D		
	(Redwood City)		PM	**36.1**	**E**			**36.3**	**E**		
12	Woodside Rd and Bay Rd	Signal	AM	**124.7**	**F**			**125.2**	**F**		
	(Redwood City)		PM	**95.1**	**F**			**95.2**	**F**		
13	Woodside Rd and Middlefield Rd	Signal	AM	43.9	D			44.1	D		
	(Redwood City/CMP)		PM	35.0	D			35.1	D		
14	Marsh Rd and US 101 NB Off-ramp	Signal	AM	25.0	C			25.1	C		
	(Menlo Park)		PM	13.8	B			13.9	B		
15	Marsh Rd and US 101 SB Off-ramp	Signal	AM	19.0	B			19.1	B		
	(Menlo Park)		PM	17.9	B			17.9	B		
16	2nd Ave and Bay Rd	AWSC	AM	13.7	B			13.8	B		
	(Redwood City)		PM	14.2	B			14.3	B		
17	2nd Ave and Middlefield Rd	TWSC	AM			**46.0**	**E**			**48.9**	**E**
	(San Mateo County)		PM			**57.9**	**F**			**58.5**	**F**
18	San Benito Ave and Fair Oaks Ave	TWSC	AM			11.9	B			12.2	B
	(San Mateo County)		PM			9.7	A			9.7	A
19	Palmer Ln and Fair Oaks Ave	TWSC	AM			11.5	B			11.6	B
	(San Mateo County)		PM			9.9	A			9.9	A
20	Holbrook Ln and Fair Oaks Ave	TWSC	AM			10.7	B			10.8	B
	(San Mateo County)		PM			9.3	A			9.3	A

ID	Intersection (Jurisdiction)	Control	Peak Hour	Background				Background + Project			
				Average[1]		Worst[2]		Average[1]		Worst[2]	
				Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS
21	18th Ave and Bay Rd	OWSC[3]	AM			9.3	A			9.3	A
	(San Mateo County)		PM			8.7	A			8.7	A
22	14th Avee and Fair Oaks Ave	TWSC	AM			10.8	B			11.0	B
	(San Mateo County)		PM			9.8	A			9.8	A

Notes:
1. Average intersection delay and LOS are reported for signalized and all-way stop controlled intersections.
2. Worst movement delay and LOS are reported for signalized and unsignalized intersections in the San Mateo County.
3. The intersection of 18th Ave and Bay Rd is yield controlled for the northbound appporach, but analyzed as an OWSC.
Bold indicates a substandard level of service.

6. Cumulative Conditions

This chapter describes traffic operations under cumulative no project conditions and cumulative plus project conditions. Cumulative conditions evaluate local traffic volumes and roadway conditions projected for the year 2040, which is 20 years from the anticipated project completion.

Roadway Network Under Cumulative Conditions

A majority of the roadway network under cumulative conditions would remain the same as the roadway network under existing conditions. Two of the study intersections are anticipated to be modified by the cumulative year.

- **Woodside Road and Bay Road.** Based on the mitigation measures provided in the Stanford in Redwood City Precise Plan EIR for Phase II, the westbound approach on Bay Road would be restriped to include a one left-turn lane, one through lane, and one right-turn lane, and the eastbound approach would be restriped to include one left-turn lane, one through lane, and one shared through/right-turn lane. In addition, the signal phasing on the eastbound and westbound approaches would be modified from permitted phasing to protected phasing.
- **Bay Road and 5th Avenue.** Signalization of the intersection was identified in the 2012 Update to the Redwood City Traffic Impact Mitigation Fee Program (TIF) as a funded improvement. Therefore, this improvement was assumed to be in place, with no changes to lane geometry at the intersection. For the purposes of this analysis, the intersection was assumed to be signalized with protected phasing on the eastbound and westbound approaches on Bay Road and permitted phasing on the northbound and southbound approaches on 5th Avenue.

Cumulative Traffic Volumes

Traffic volumes under cumulative no project conditions were estimated using the projected baseline (2015) and 2040 volumes from the bi-county C/CAG-VTA travel demand model, the 2040 General Plan volumes from the City of Menlo Park ConnectMenlo EIR (October 2016), and the 2040 cumulative volumes from the City of Redwood City Broadway Plaza Draft EIR (November 2018).

For the study intersections in Redwood City, cumulative no project traffic volumes were taken directly from the 2040 cumulative volumes included the Broadway Plaza Draft EIR. For the study intersections in Menlo park and Atherton, cumulative no project traffic volumes were taken directly from the 2040 General Plan volumes included in the ConnectMenlo EIR (October 2016). For the remaining study

intersections in San Mateo County and the North Fair Oaks neighborhood, cumulative no project traffic volumes were estimated using the traffic growth derived from projected baseline (2015) and 2040 volumes from the bi-county C/CAG-VTA travel demand model. The traffic growth calculated from the model projected link volumes between the baseline year and the future year was applied to the existing year traffic counts to get the cumulative condition volumes. The cumulative no project traffic volumes are shown on Figure 12.

The project generated trips, as previously described in Chapter 3, were added to the cumulative no project traffic volumes to derive the cumulative plus project traffic volumes (see Figure 13).

Cumulative Intersection Levels of Service

The results of the intersection level of service analysis (see Table 8) show that under no project cumulative conditions, the following study intersections are expected to operate worse than acceptable jurisdictional standards:

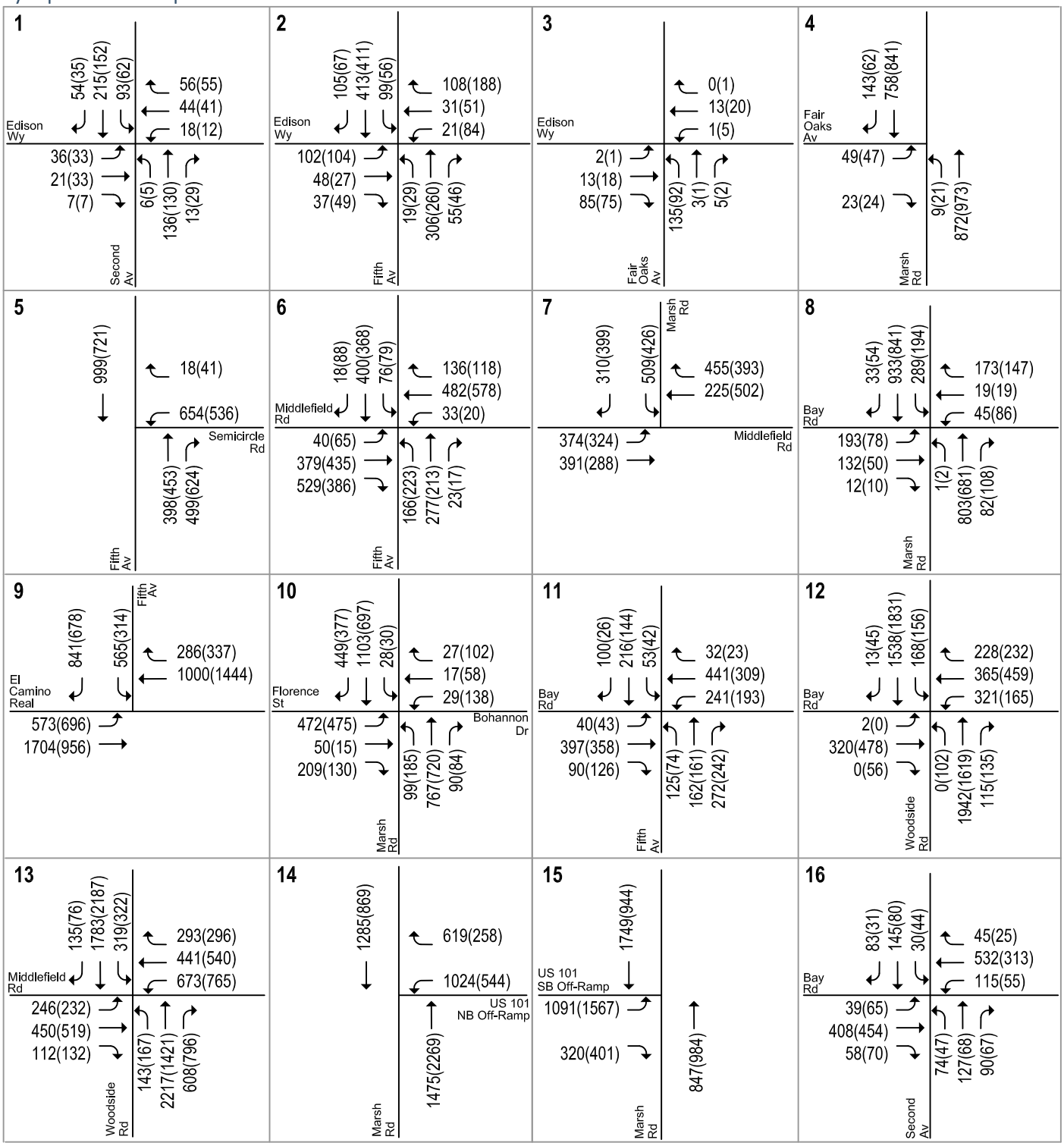
- 5th Avenue and Edison Way (San Mateo County): LOS E on average and LOS F on the worst movement in both AM peak hour and PM school peak hour.
- Woodside Road and Bay Road (Redwood City): LOS F in both AM peak hour and PM school peak hour.
- Woodside Road and Middlefield Road (Redwood City): LOS F in both AM peak hour and PM school peak hour.
- 2nd Avenue and Middlefield Road (San Mateo County): LOS F on the worst stop-controlled approach in both AM peak hour and PM school peak hour.

Cumulative Project Impacts

Under cumulative plus project conditions, the added project trips would cause an increase in vehicle delay exceeding the applicable significance impact thresholds at the following intersections:

- **5th Avenue and Edison Way (San Mateo County):** Under cumulative conditions, the intersection would operate at LOS E on average and LOS F for the worst movement in both the AM and PM peak hours. Project traffic would increase the average delay and the worst movement delay by more than 4 seconds, which is a significant impact under County standards.
- **2nd Avenue and Middlefield Road (San Mateo County):** Under cumulative conditions, the intersection would operate at LOS F on the worst stop-controlled approach in both the AM and PM peak hours. Project traffic would increase the worst movement delay by more than 4 seconds in the AM peak hour, which is a significant impact under County standards.

The level of service calculation sheets are included in Appendix D.



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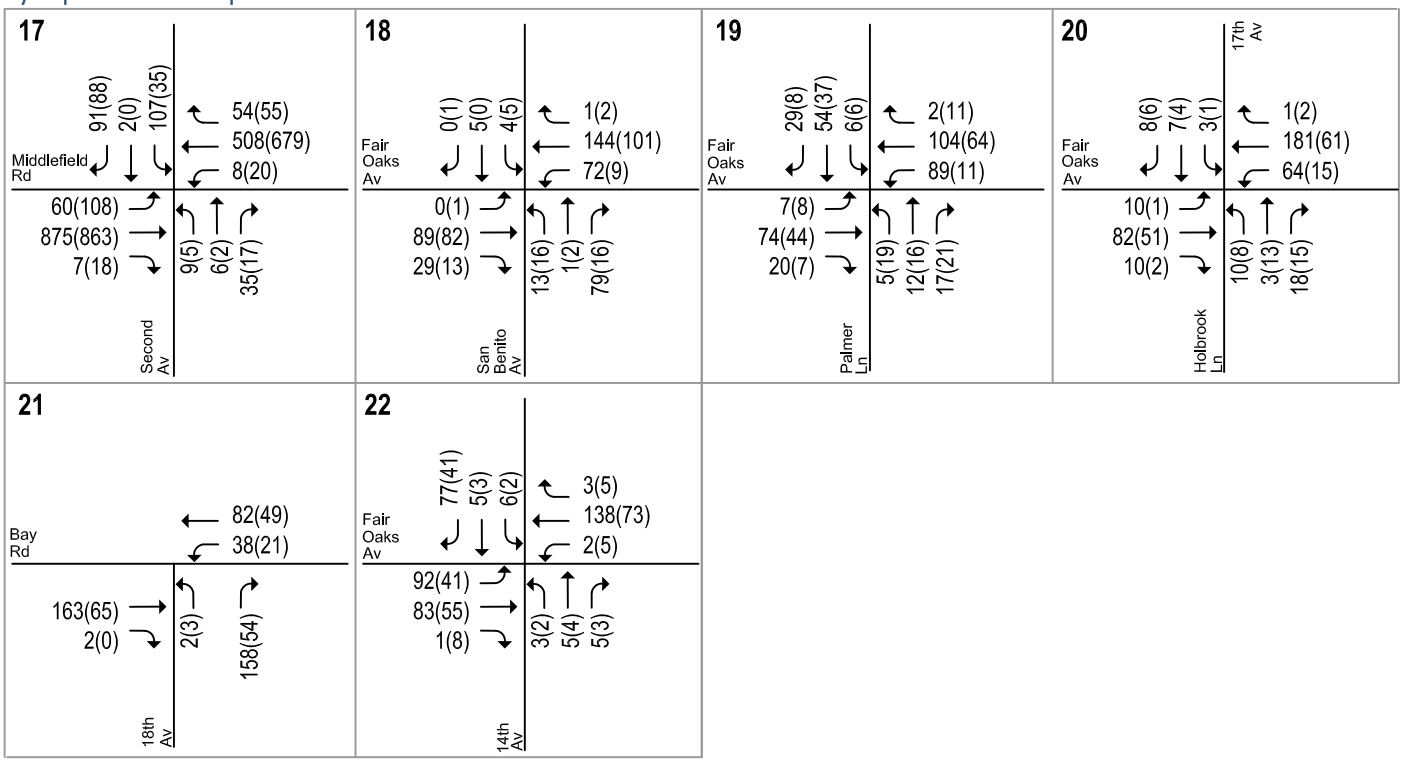
XX(XX) =AM(PM) Peak-Hour Traffic Volumes

Figure 12
Cumulative No Project Traffic Volumes



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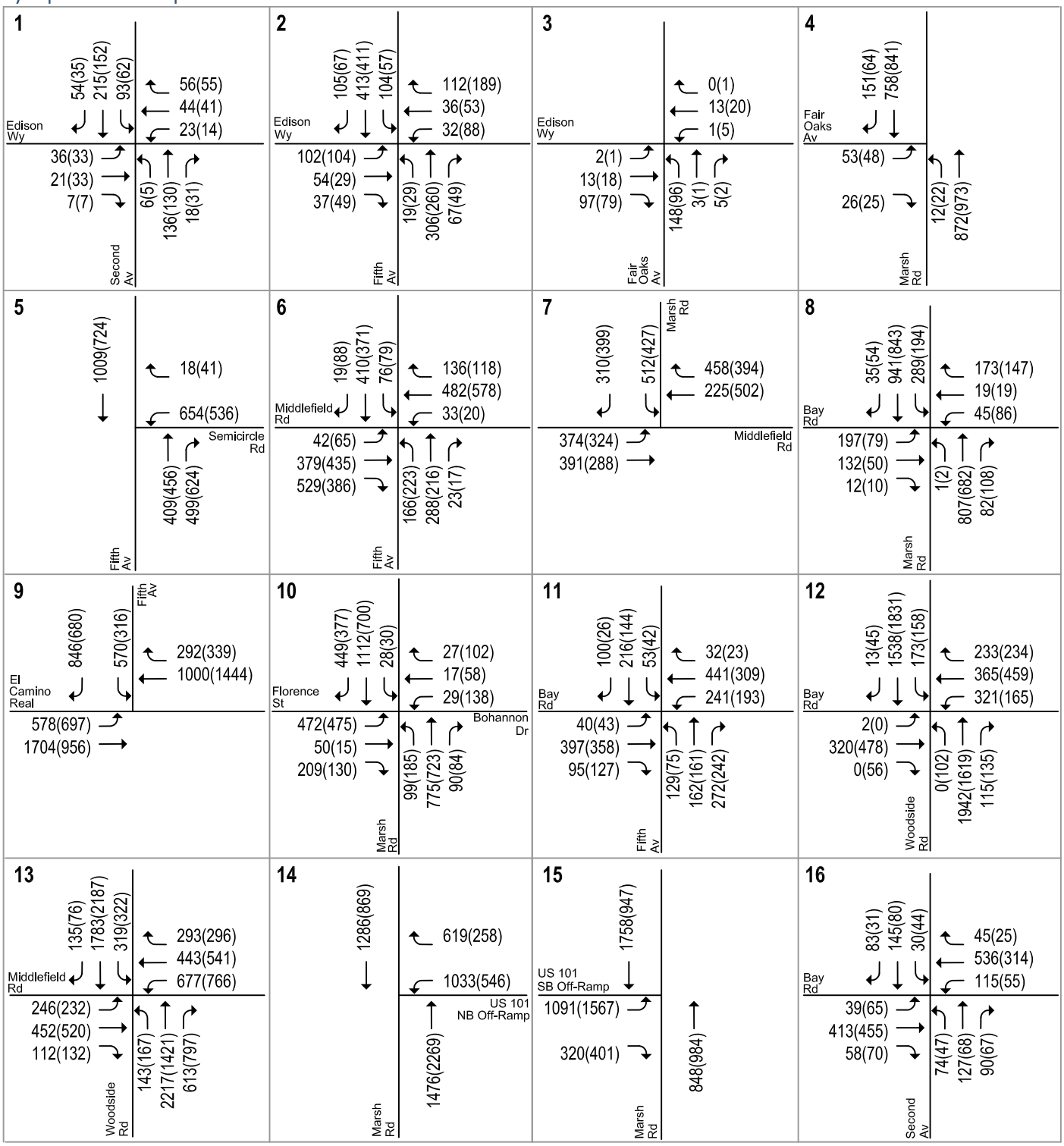
XX(XX) =AM(PM) Peak-Hour Traffic Volumes

Figure 12
Cumulative No Project Traffic Volumes



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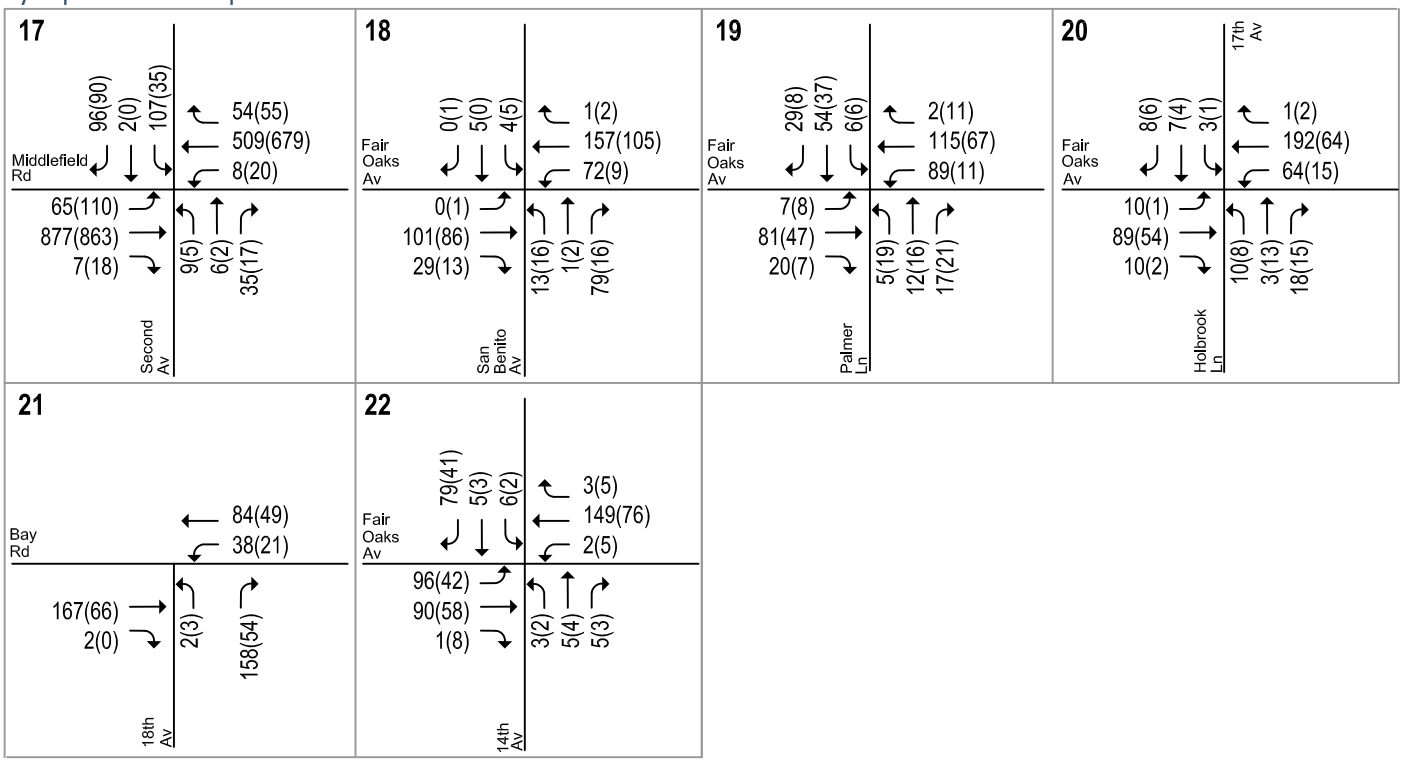
XX(XX) =AM(PM) Peak-Hour Traffic Volumes

Figure 13
Cumulative Plus Project Traffic Volumes



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

Figure 13
Cumulative Plus Project Traffic Volumes

Table 8
Intersection Levels of Service Under Cumulative Conditions

ID	Intersection (Jurisdiction)	Control	Peak Hour	Cumulative Average[1] Delay (sec.)	LOS	Cumulative Worst[2] Delay (sec.)	LOS	Cumulative + Project Average[1] Delay (sec.)	LOS	Cumulative + Project Worst[2] Delay (sec.)	LOS
1	2nd Ave and Edison Wy	AWSC	AM	10.3	B	11.4	B	10.3	B	11.4	B
	(San Mateo County)		PM	9.1	A	9.6	A	9.1	A	9.7	A
2	5th Ave and Edison Wy	AWSC	AM	**39.5**	**E**	**64.8**	**F**	**45.5**	**E**	**78.0**	**E**
			Mitigated AM[5]					**41.0**	**E**	**68.4**	**E**
	(San Mateo County)		PM	**38.5**	**E**	**64.2**	**F**	**40.3**	**E**	**68.1**	**F**
3	Fair Oaks Ave and Edison Wy	OWSC	AM			9.7	A			9.8	A
	(San Mateo County)		PM			9.5	A			9.6	A
4	Fair Oaks Ave and Marsh Rd	OWSC	AM			19.0	C			19.5	C
	(San Mateo County)		PM			21.7	C			21.9	C
5	5th Ave and Semicircle Rd	Signal	AM	14.6	B	22.6	C	14.7	B	22.8	C
	(San Mateo County)		PM	9.0	A	12.0	B	9.0	A	12.1	B
6	5th Ave and Middlefield Rd	Signal	AM	36.0	D	49.3	D	37.8	D	51.2	D
	(San Mateo County)		PM	37.6	D	52.8	D	38.1	D	53.3	D
7	Marsh Rd and Middlefield Rd	Signal	AM	32.7	C			32.9	C		
	(Atherton)		PM	38.3	D			38.4	D		
8	Marsh Rd and Bay Rd	Signal	AM	25.6	C			25.7	C		
	(Menlo Park)		PM	33.5	C			33.5	C		
9	5th Ave and El Camino Real	Signal	AM	25.7	C	43.9	D	26.2	C	45.4	D
	(San Mateo County)		PM	26.5	C	43.0	D	26.7	C	43.4	D
10	Marsh Rd and Florence St	Signal	AM	39.5	D			39.5	D		
	(Menlo Park)		PM	41.6	D			41.6	D		
11	5th Ave and Bay Rd	Signal[4]	AM	19.5	B			20.2	C		
	(Redwood City)		PM	13.4	B			13.4	B		
12	Woodside Rd and Bay Rd	Signal	AM	**90.6**	**F**			**91.7**	**F**		
	(Redwood City)		PM	**122.7**	**F**			**122.9**	**F**		
13	Woodside Rd and Middlefield Rd	Signal	AM	**117.1**	**F**			**117.6**	**F**		
	(Redwood City/CMP)		PM	**127.3**	**F**			**127.6**	**F**		
14	Marsh Rd and US 101 NB Off-ramp	Signal	AM	19.8	B			19.9	B		
	(Menlo Park)		PM	15.8	B			15.9	B		
15	Marsh Rd and US 101 SB Off-ramp	Signal	AM	19.5	B			19.6	B		
	(Menlo Park)		PM	19.7	B			19.7	B		
16	2nd Ave and Bay Rd	AWSC	AM	28.3	D			28.7	D		
	(Redwood City)		PM	14.1	B			14.2	B		
17	2nd Ave and Middlefield Rd	TWSC	AM			**155.5**	**F**			**167.3**	**F**
			Mitigated AM[5]							**159.1**	**F**
	(San Mateo County)		PM			**62.7**	**F**			**64.1**	**F**
18	San Benito Ave and Fair Oaks Ave	TWSC	AM			12.6	B			12.9	B
	(San Mateo County)		PM			9.9	A			10.0	B
19	Palmer Ln and Fair Oaks Ave	TWSC	AM			12.1	B			12.3	B
	(San Mateo County)		PM			10.1	B			10.2	B
20	Holbrook Ln and Fair Oaks Ave	TWSC	AM			11.1	B			11.2	B
	(San Mateo County)		PM			9.4	A			9.5	A

ID	Intersection (Jurisdiction)	Control	Peak Hour	Cumulative Average[1] Delay (sec.)	Cumulative Average[1] LOS	Cumulative Worst[2] Delay (sec.)	Cumulative Worst[2] LOS	Cumulative + Project Average[1] Delay (sec.)	Cumulative + Project Average[1] LOS	Cumulative + Project Worst[2] Delay (sec.)	Cumulative + Project Worst[2] LOS
21	18th Ave and Bay Rd	OWSC[3]	AM			10.1	B			10.1	B
	(San Mateo County)		PM			8.9	A			8.9	A
22	14th Avee and Fair Oaks Ave	TWSC	AM			11.3	B			11.5	B
	(San Mateo County)		PM			10.0	B			10.0	B

Notes:
1. Average intersection delay and LOS are reported for signalized and all-way stop controlled intersections.
2. Worst movement delay and LOS are reported for signalized and unsignalized intersections in the San Mateo County.
3. The intersection of 18th Ave and Bay Rd is yield controlled for the northbound appporach, but analyzed as an OWSC.
4. Signalization is anticipated to be in place by the cumulative year as identified in the 2012 Update to the Redwood City Transportation Impact Mitigation Fee.
5. The mitigation measure is to expand the school's shuttle program to meet the AM trip cap of 298 trips.

Bold indicates a substandard level of service.
Bold indicates a significant impact.

Cumulative Mitigation

The following mitigation measure is proposed to mitigate the project's impacts. Table 8 shows the intersection levels of services at impacted intersections with the mitigation measure.

- **Trip Cap of 298 AM Peak-Hour Trips:** In order to avoid the project impacts at the 5th Avenue/Edison Way and 2nd Avenue/Middlefield Road intersections under cumulative plus project conditions, the school should implement measures, including staggering the pre-school start time to 9:15 AM, to reduce the AM peak-hour trips generated by the school from 343 trips to 298 trips. The trip cap would improve the average and worst movement delays at these two intersections to less than a 4-second increase from no-project conditions. Staggering the pre-school start time is also expected to reduce the peak parking demand and improve the drop-off operations because there would be fewer students arriving during the peak drop-off period. With the staggering schedule, the school would provide care and accommodations to preschool students who arrive early with siblings before the preschool program starts.

7.
Other Transportation Issues

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

- Potential impacts to bicycle, pedestrian, and transit facilities
- Site access and circulation
- Parking

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

Impacts on Bicycle, Pedestrian, and Transit Facilities

Similar to existing conditions, most students would be dropped off at school, with very few students walking or bicycling to school. Most of the residential streets in the vicinity of the school have no sidewalks. Therefore, it would not be safe for the younger students to walk to school. Although the streets do not have bike lanes, the low volumes and travel speeds on the neighborhood streets are conducive to bicycling.

The school is more than one-half mile from most existing transit stops and is not near a major transit center. Because the distance is farther than the typically assumed walking distance of one quarter mile, the school is considered to be unserved by transit.

Site Access and Circulation

The site access and circulation review is based on the site plan shown in Figure 2 and observations of existing operations at the school. The site access was evaluated in accordance with generally accepted traffic engineering standards. The review focuses on the evaluation of drop-off/pick-up operation. The current school schedule is 8:15 - 8:45 AM for the morning drop-off, 3:15 - 3:30 PM for the lower school pick-up, and 3:30 - 3:45 PM for the middle school pick-up. On Friday, the pick-up schedule is 2:30 - 2:45 PM for the lower school and 2:45 - 3:00 PM for the middle school. The proposed pre-school would start at 8:15 - 8:45 AM and end at 2:00 PM.

As shown in Figure 2, the main parking lot is configured with a loading area in front of Building 2. All drop-off/pick-up vehicles enter the parking lot via the driveway in front of Building 3, drop off/pick-up

students in front of Building 2, and exit the parking lot via the driveway next to Building 1. Parents that choose to park and walk students to the school use the middle driveways to enter and exit the parking lot. There are staff members in the loading area to manage the drop-off/pick-up traffic.

In the morning, the drop-off vehicle queue occasionally extended out of the parking lot by one to five vehicles, which occurred in the westbound shoulder/parking lane and did not block westbound traffic on Edison Way. Most of the time, the drop-off traffic moved efficiently and smoothly within the parking lot. Parents were not observed to drop off students on Edison Way.

In the afternoon, the school implements an informing system to speed up the pick-up operations. Upon arrival, parents inform the staff at the driveway who then inform the staff inside the building to bring out each student. The pick-up vehicle moves forward to the loading area, while waiting for the student to be brought out. Observations show that the pick-up traffic moved efficiently and smoothly within the parking lot with the informing system, and the pick-up vehicle queue did not extend to Edison Way.

The proposed expansion would increase the enrollment by up to 50 students (30 pre-school students and 20 K-8 students). The pre-school parents would utilize the loading area in front of Building 2. Parents would also park in front of Buildings 1 and 2. The current traffic management practice would continue to be implemented to move the drop-off/pick-up traffic within the parking lot. However, because the drop-off vehicle queue was observed to back up to Edison Way occasionally by one to five vehicles in the morning, the enrollment increase would potentially worsen the vehicle queuing condition on Edison Way. Therefore, it is recommended the school assign more staff members in the drop-off areas and in the parking lot to ensure drop-off/pick-up traffic moves efficiently on site and to prevent vehicle queuing on Edison Way. During the peak drop-off/pick-up periods, the school should also assign a staff member at the inbound driveway to monitor the inbound vehicle queueing condition at the driveway and coordinate with staff in the loading area and parking lot to quickly move the inbound traffic if the vehicle queue extends to Edison Way.

Parking

As part of the existing conditional use permit (CUP), the school is required to provide 128 on-site parking spaces. Following the CUP approval, approximately 44 of these spaces were designated and striped on turf between Buildings 3 and 4. However, because the actual parking demand is only 37-50 parking spaces (as discussed below) and the main parking lot was able to accommodate this parking demand, the parking spaces between Buildings 3 and 4 and east of Building 4 were seldom used. This turfed area between Buildings 3 and 4 is currently used as outdoor classrooms under temporary tents to comply with Covid-19 protocol, as well as an outdoor educational garden. Accordingly, the school currently maintains 84 striped parking spaces on site with 53 parking spaces in the main parking lot, 26 parking spaces in the faculty parking lot east of Building 4, and 5 parking spaces in front of the gate between Buildings 3 and 4.

Per the San Mateo County Zoning Ordinance Section 6276.7, the school would be required to provide 192 parking spaces based on the parking requirement of one space per 400 square feet for institutional use and the total building floor area of 76,600 square feet. The school is applying for a parking exception as part of the CUP amendment submittal to reduce this requirement to 60 parking spaces with 46 parking spaces in the main parking lot, 5 parking spaces between Buildings 3 and 4, and 9 parking spaces in the parking lot east of Building 4 (see Figure 2). Based on Hexagon's counts conducted on November 5 to 7, 2019, the maximum number of vehicles parked on site ranged from 37 to 50 vehicles between 8:00 AM and 9:00 AM. Most vehicles (32 to 45) parked in the main parking lot, with 5 vehicles parked in the lot between Buildings 3 and 4. There were no vehicles parked in the faculty parking lot. The school enrollment was 260 students in November 2019 when the parking counts were conducted. With the proposed enrollment of 310 students, the projected parking demand would

be 44 to 60 spaces (an 19.2% increase). Therefore, the parking demand for the 310-student enrollment would be much lower than the 192 parking spaces required by Zoning Ordinance Section 6276.7 and also lower than the current 84 striped parking spaces provided. Accordingly, the proposed 60 parking spaces proposed would adequately accommodate the school's parking demand.

During the morning drop-off period, most parents drop K-8 students without parking. In the afternoon, some parents parked in the parking lot or on Edison Way to pick up students at the school buildings. While there are available parking spaces in the parking lot, some parents were observed to park on Edison Way (and walk to the school to pick up students) to avoid interaction with the pick-up traffic.

For the proposed 30 pre-school students, it is anticipated that parents would either park in the loading area in front of Building 2 or park in front of Buildings 1 and 2. It is expected that some of the parking spaces would be reserved for the pre-school during morning drop off and afternoon pick up hours. Because most parents drop K-8 students without parking, there would be enough parking spaces for the pre-school in the morning. In the afternoon, the pre-school students would be dismissed more than a half hour before the K-8 students, so the parking demand would not overlap.

Based on these observations and the anticipated pre-school operations, the proposed 60 parking spaces would be sufficient to accommodate the school's anticipated parking demand. If the parking exception is not granted to the extent requested, the school would consider relying on their existing reciprocal parking agreement with Sports House at 3151 Edison Way to meet its remaining parking requirement.

Synapse School Expansion TIA
Technical Appendices

April 21, 2021

Appendix A
2018 and 2019 Trip Monitoring Results

HEXAGON TRANSPORTATION CONSULTANTS, INC.

November 8, 2018

Ms. Summer Burlison
Planning & Building Department
County of San Mateo
455 County Center, 2nd Floor
Redwood City, CA 94063

Re: Trip Monitoring for Synapse School

Dear Ms. Burlison:

This letter presents the trip monitoring results for the Synapse school. As part of the conditions of approval (COA), the school is required to conduct AM peak-hour trip generation counts over three weekdays (a Tuesday, Wednesday, and/or Thursday) in October and March of each school year and to show that normal operation of the school does not exceed 275 morning peak-hour trips.

The results of the trip monitoring show that the school is in compliance with the COA. With the 2018-2019 enrollment of 254 students, the average trip generation of the school was 269 trips in the AM peak hour.

School Schedule and Shuttle Program

The school drop-off period is between 8:15 and 8:45 AM for all grades every day. The pick-up periods are 3:15 – 3:30 PM for the lower school and 3:30 – 3:45 PM for the middle school on Monday through Thursday. On Friday, the pick-up periods are 2:30 – 2:45 PM for the lower school and 2:45 – 3:00 PM for the middle school.

The school currently operates 9 shuttles serving 72 students in the morning and 4 shuttles serving 20 students in the afternoon.

Morning Shuttle Routes

All shuttles arrive at the school at around 8:30 AM.

- Burlingame/Hillsborough (1 Van/7 Students) – Pick-up Location: Cal Trans Park & Ride, 1698 Golf Course Drive, Burlingame, CA 94010. Departure Time: 7:50 AM.
- Palo Alto 1 (5 Vans/43 Students) – Pick-up Location: Palo Alto Art Center, 1313 Newel Road, Palo Alto, CA 94303. Departure Time: 8:10 AM.
- Palo Alto 2 (1 Van/5 Students) – Pick-up Location: El Camino Park, 155 El Camino Real, Palo Alto, CA 94301. Departure Time: 8:00 AM.
- Los Altos/Mountain View (1 Van/6 Students) – Pick-up Location: McKenzie Park Tennis Court, 707 Fremont Avenue, Los Altos, CA 94024. Departure Time: 7:45 AM.
- Woodside (1 Vans/11 Students) – Pick-up Location: Park & Ride, Woodside Road & I-280. Departure Time: 8:00 AM.

Afternoon Shuttle Routes

All shuttles depart the school at 3:40 PM on Monday through Thursday and at 2:40 PM on Friday.

- Burlingame/Hillsborough (1 Van/3 Students): Drop-off Location: Cal Trans Park & Ride, 1698 Golf Course Drive, Burlingame, CA 94010. Estimated Drop-off Time: 4:10 PM on Monday – Thursday and 3:10 PM on Friday.
- Palo Alto 1 (2 Vans/12 Students): Drop-off Location: Palo Alto Art Center, 1313 Newel Road, Palo Alto, CA 94303. Estimated Drop-off Time: 4:05 PM on Monday – Thursday and 3:05 PM on Friday.
- Los Altos/Mountain View (1 Van/5 Students) – Drop-off Location: McKenzie Park Tennis Court, 707 Fremont Avenue, Los Altos, CA 94024. Estimated Drop-off Time: 4:15 PM on Monday – Thursday and 3:15 PM on Friday.

Trip Generation Counts

Hexagon conducted the trip generation counts on October 10, October 18, and October 23, 2018 between 7:00 and 9:00 AM. The counts included the vehicle traffic at the school driveways plus any school-related traffic along Edison Way and its cross-streets.

Table 1 shows that the average trip generation of the school was 269 trips in the AM peak hour. Only a few parents, ranging one to four vehicles, parked on the adjacent streets and walked students to the school.

Table 1
Synapse School Trip Generation

	AM Peak-Hour Trips		
Date	**Total**	**In**	**Out**
10/10/18 (Wed)	253	141	112
10/18/18 (Thu)	287	155	132
10/23/18 (Tue)	268	145	123
Average	**269**	**147**	**122**

Drop-Off/Pick-Up Operations

Figure 1 shows the drop-off/pick-up circulation at the school. The school divides the parking lot into two areas for the lower and middle school drop-off/pick-up. There are staff members in each area to manage the drop-off/pick-up traffic.

In the morning, the drop-off vehicle queue occasionally extended out of the parking lot by one to two vehicles, which blocked the shoulder/parking lane but did not block the westbound traffic on Edison Way. Most of the time, the drop-off traffic moved efficiently and smoothly within the parking lot.

In the afternoon, the school implements an informing system to speed up the pick-up operations. Upon arrival, parents inform the staff at the driveway who then inform the staff inside the building to bring out which student. The pick-up vehicle moves forward in the parking lot, while waiting for the student to be brought out. Observations show that the pick-up traffic moved efficiently and smoothly within the parking lot with the informing system, and the pick-up vehicle queue did not extend to Edison Way.

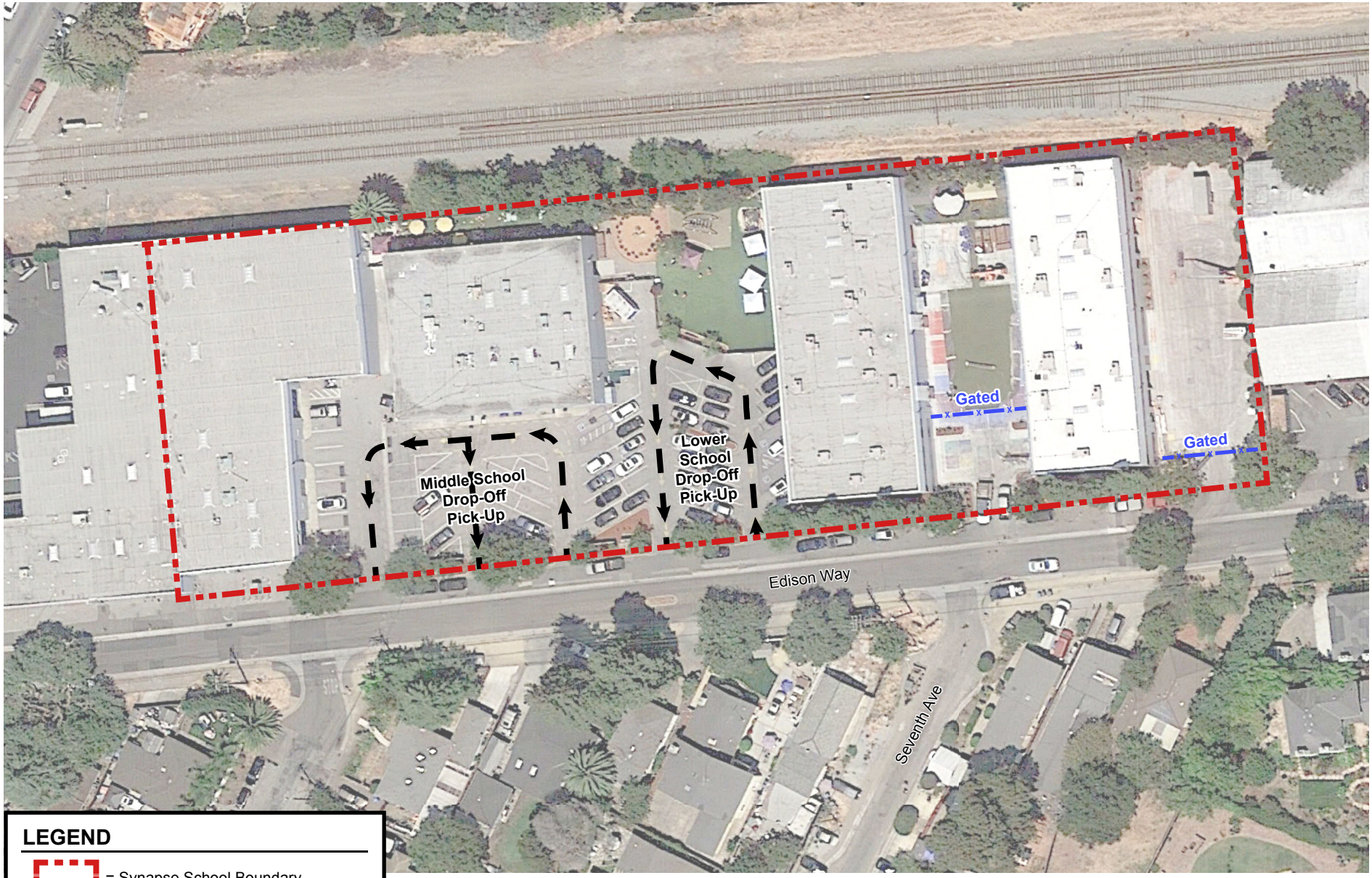


Figure 1
Synapse School Drop-Off/Pick-Up Circulation

In the morning, most parents drop students without parking. In the afternoon, some parents parked in the parking lot or on Edison Way to pick up students at the school buildings. While there are available parking spaces in the parking lot, some parents were observed to park on Edison Way to avoid interaction with the pick-up traffic.

Parking Occupancy

There are 66 parking spaces in the main parking lot with additional parking spaces in the eastern parking lots. The number of vehicles parked on site ranged from 29 to 45 vehicles around 9:00 AM on the traffic count dates. Most vehicles parked in the main parking lot.

Sincerely,
HEXAGON TRANSPORTATION CONSULTANTS, INC.

Gary K. Black
President

Kai-Ling Kuo
Associate

AM Peak-Hour Volume Count Worksheet

Date: 10/10/2018
Counter: Kilbee, Patti, Jo
Intersection Name: Synapse School
Weather: Overcast Menlo Park

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	Driveway 1 & 2		Driveway 3		Driveway 4		Driveway 5 & 6		Driveway 7		On-Street				
Start Time	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT			
7:00	0	0	0	0	0	0	0	0	0	0	0	0			
7:15	0	0	0	0	0	0	0	0	4	0	0	0			
7:30	1	0	0	0	0	0	0	0	5	0	0	0			
7:45	2	0	2	0	0	0	0	0	6	0	0	0			
8:00	3	0	4	0	0	0	2	0	9	0	0	0			
8:15	14	2	5	0	0	0	6	0	14	0	0	0			
8:30	46	21	5	0	0	0	13	7	14	0	1	1			
8:45	73	52	5	0	0	0	46	37	15	1	1	1			
9:00	86	62	5	0	0	0	52	48	15	1	1	1			
	9 at 9AM		5 at 9AM				4 at 9AM		14 at 9AM				Parking		32
Peak Hour													Hourly Totals		
7:00 - 8:00	3	0	4	0	0	0	2	0	9	0	0	0	18		
7:15 - 8:15	14	2	5	0	0	0	6	0	10	0	0	0	37		
7:30 - 8:30	45	21	5	0	0	0	13	7	9	0	1	1	102		
7:45 - 8:45	71	52	3	0	0	0	46	37	9	1	1	1	221		
8:00 - 9:00	83	62	1	0	0	0	50	48	6	1	1	1	253		
Peak Volumes:	**83**	**62**	**1**	**0**	**0**	**0**	**50**	**48**	**6**	**1**	**0**	**1**	**1**	**253**	**141**	**112**

AM Peak-Hour Volume Count Worksheet

Date: 10/18/2018
Counter: Kilbee and Jo
Intersection Name: Synapse School
Weather: Overcast Menlo Park

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	Driveway 1 & 2		Driveway 3		Driveway 4		Driveway 5 & 6		Driveway 7		On-Street				
Start Time	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT			
7:00	0	0	0	0	0	0	0	0	0	0	0	0			
7:15	0	0	0	0	0	0	0	0	1	0	0	0			
7:30	2	0	0	0	0	0	0	0	3	1	0	0			
7:45	3	0	2	0	0	0	0	0	4	1	0	0			
8:00	8	1	3	0	0	0	1	0	7	1	0	0			
8:15	17	2	5	0	0	0	3	0	9	1	0	0			
8:30	45	18	5	0	0	0	10	3	10	1	2	2			
8:45	85	64	5	0	0	0	45	33	12	1	2	2			
9:00	88	75	5	0	0	0	65	53	13	3	3	3			
	14 cars at 9AM		5 at 9AM				12 cars at 9AM		13 at 9AM					Parking	44
Peak Hour													Hourly Totals		
7:00 - 8:00	8	1	3	0	0	0	1	0	7	1	0	0	21		
7:15 - 8:15	17	2	5	0	0	0	3	0	8	1	0	0	36		
7:30 - 8:30	43	18	5	0	0	0	10	3	7	0	2	2	90		
7:45 - 8:45	82	64	3	0	0	0	45	33	8	0	2	2	239		
8:00 - 9:00	80	74	2	0	0	0	64	53	6	2	3	3	287		
Peak Volumes:	**80**	**74**	**2**	**0**	**0**	**0**	**64**	**53**	**6**	**2**	**0**	**3**	**3**	**287**	**155**	**132**

AM Peak-Hour Volume Count Worksheet

AUTO-CENSUS

Traffic Monitoring and Analysis

870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

Date: 10/23/2018
Counter: Kilbee and Jo
Intersection Name: Synapse School
Weather: Overcast Menlo Park

	Driveway 1 & 2		Driveway 3		Driveway 4		Driveway 5 & 6		Driveway 7		On-Street				
Start Time	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT			
7:00	0	0	0	0	0	0	0	0	0	0	0	0			
7:15	0	0	2	0	0	0	2	0	1	0	0	0			
7:30	0	0	3	0	0	0	2	0	1	0	0	0			
7:45	3	0	4	0	0	0	3	0	4	0	0	0			
8:00	5	1	5	0	0	0	4	0	6	1	0	0			
8:15	14	3	5	0	0	0	10	2	7	1	0	0			
8:30	47	23	5	0	0	0	24	14	11	1	0	0			
8:45	73	48	5	0	0	0	41	32	13	2	1	1			
9:00	78	63	5	0	0	0	63	55	15	3	4	4			
	1 car at 9AM		5 at 9AM				11 at 9AM		12 at 9AM					Parking	29
Peak Hour													Hourly Totals		
7:00 - 8:00	5	1	5	0	0	0	4	0	6	1	0	0	22		
7:15 - 8:15	14	3	3	0	0	0	8	2	6	1	0	0	37		
7:30 - 8:30	47	23	2	0	0	0	22	14	10	1	0	0	119		
7:45 - 8:45	70	48	1	0	0	0	38	32	9	2	1	1	202		
8:00 - 9:00	73	62	0	0	0	0	59	55	9	2	4	4	268		
Peak Volumes:	**73**	**62**	**0**	**0**	**0**	**0**	**59**	**55**	**9**	**2**	**0** **4**	**4**	**268**	**145**	**123**

HEXAGON TRANSPORTATION CONSULTANTS, INC.

November 25, 2019

Mr. Bob Bear
Chief Operations Officer
Synapse School
3375 Edison Way
Menlo Park, CA 94025

Re: 2019 Trip Monitoring for Synapse School

Dear Mr. Bear:

This letter presents the trip monitoring results for the Synapse school. As part of the conditions of approval (COA), the school is required to conduct AM peak-hour trip generation counts over three weekdays (a Tuesday, Wednesday, and/or Thursday) in October and March of each school year and to show that normal operation of the school does not exceed 275 morning peak-hour trips.

The results of the trip monitoring show that the school is in compliance with the COA. With the 2019-2020 enrollment of 260 students, the average trip generation of the school was 243 trips in the AM peak hour.

School Schedule and Shuttle Program

The school drop-off period is between 8:15 and 8:45 AM for all grades every day. The pick-up periods are 3:15 – 3:30 PM for the lower school and 3:30 – 3:45 PM for the middle school on Monday through Thursday. On Friday, the pick-up periods are 2:30 – 2:45 PM for the lower school and 2:45 – 3:00 PM for the middle school.

The school currently operates 10 shuttles serving 87 students in the morning and 5 shuttles serving 36 students in the afternoon.

Morning Shuttle Routes

All shuttles arrive at the school at around 8:30 AM.

- Burlingame/Hillsborough (1 Van/8 Students) – Pick-up Location: Cal Trans Park & Ride, 1698 Golf Course Drive, Burlingame, CA 94010. Departure Time: 7:50 AM.
- Los Altos/Mountain View (1 Van/10 Students) – Pick-up Location: McKenzie Park Tennis Court, 707 Fremont Avenue, Los Altos, CA 94024. Departure Time: 7:45 AM.
- Palo Alto 1 (6 Vans/45 Students) – Pick-up Location: Palo Alto Art Center, 1313 Newel Road, Palo Alto, CA 94303. Departure Time: 8:10 AM.
- Sunnyvale/Palo Alto 2 (1 Van/11 Students) – Pick-up Location #1: Serra Park Tennis Courts, 1563 Hollenbeck Ave, Sunnyvale, CA 94085. Departure Time: 7:40 AM. Pick-up Location #2: El Camino Park, 155 El Camino Real, Palo Alto, CA 94301. Departure Time: 8:10 AM.
- Woodside (1 Vans/13 Students) – Pick-up Location: Park & Ride, Woodside Road & I-280. Departure Time: 8:00 AM.

Afternoon Shuttle Routes

All shuttles depart the school at 3:50 PM on Monday through Thursday and at 2:50 PM on Friday.

- Burlingame/Hillsborough (1 Van/7 Students): Drop-off Location: Cal Trans Park & Ride, 1698 Golf Course Drive, Burlingame, CA 94010. Estimated Drop-off Time: 4:10 PM on Monday – Thursday and 3:10 PM on Friday.
- Los Altos/Mountain View (1 Van/9 Students) – Drop-off Location: McKenzie Park Tennis Court, 707 Fremont Avenue, Los Altos, CA 94024. Estimated Drop-off Time: 4:15 PM on Monday – Thursday and 3:15 PM on Friday.
- Palo Alto 1 (3 Vans/20 Students): Drop-off Location: Palo Alto Art Center, 1313 Newel Road, Palo Alto, CA 94303. Estimated Drop-off Time: 4:05 PM on Monday – Thursday and 3:05 PM on Friday.

Trip Generation Counts

Hexagon conducted trip generation counts on November 5, 6, and 7, 2019, between 7:00 and 9:00 AM. The counts included the vehicle traffic at the school driveways plus any school-related traffic along Edison Way and its cross-streets.

Table 1 shows that the average trip generation of the school was 243 trips in the AM peak hour. There were no parents parking on the adjacent streets and walking students to the school.

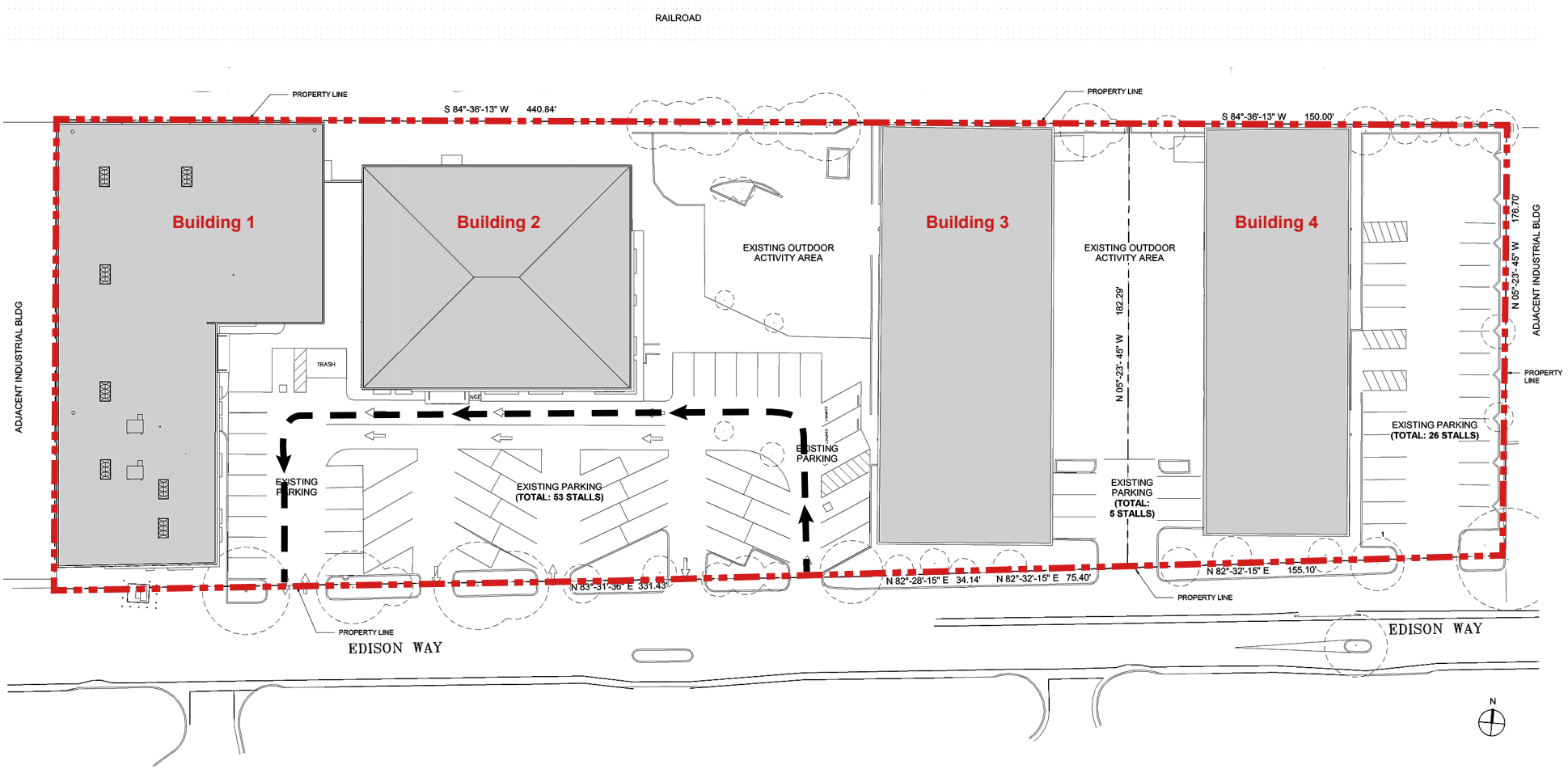
Table 1
Synapse School Trip Generation

Date	AM Peak-Hour Trips		
	Total	In	Out
11/5/19 (Tue)	218	116	102
11/6/19 (Wed)	262	144	118
11/7/19 (Thu)	250	138	112
Average	**243**	**133**	**110**

Drop-Off/Pick-Up Operations

Figure 1 shows the drop-off/pick-up circulation at the school. The main parking lot is configured with a loading area in front of Building 2. All drop-off/pick-up vehicles enter the parking lot via the driveway in front of Building 3, drop off/pick-up students in front of Building 2, and exit the parking lot via the driveway next to Building 1. Parents that choose to park and walk students to the school use the middle driveways to enter and exit the parking lot.

In the morning, the drop-off vehicle queue occasionally extended out of the parking lot by one to five vehicles, which blocked the shoulder/parking lane but did not block the westbound traffic on Edison Way. Most of the time, the drop-off traffic moved efficiently and smoothly within the parking lot.



LEGEND

= Synapse School Boundary

= Drop-Off / Pick-Up Path

Figure 1
Synapse School Site and Drop-Off/Pick-Up Circulation

HEXAGON

NORTH
Not to Scale

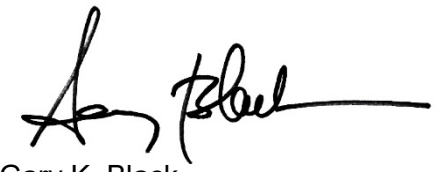
In the afternoon, the school implements an informing system to speed up the pick-up operations. Upon arrival, parents inform the staff at the driveway who then inform the staff inside the building to bring out which student. The pick-up vehicle moves forward to the loading area, while waiting for the student to be brought out. Observations show that the pick-up traffic moved efficiently and smoothly within the parking lot with the informing system, and the pick-up vehicle queue did not extend to Edison Way.

In the morning, most parents drop students without parking. In the afternoon, some parents parked in the parking lot or on Edison Way to pick up students at the school buildings. While there are available parking spaces in the parking lot, some parents were observed to park on Edison Way to avoid interaction with the pick-up traffic.

Parking Occupancy

There are 53 parking spaces in the main parking lot with additional parking spaces in the eastern parking lots. The number of vehicles parked on site ranged from 34 to 50 vehicles around 9:00 AM on the traffic count dates. Most vehicles (29 to 45) parked in the main parking lot with 5 vehicles parked in the lot between Buildings 3 and 4. There were no vehicles parked in the staff parking lot east of Building 4.

Sincerely,
HEXAGON TRANSPORTATION CONSULTANTS, INC.



Gary K. Black
President

Kai-Ling Kuo
Associate

AM Peak-Hour Volume Count Worksheet- 18GB41

Date: 11/5/2019
Counter: Kilbee, Patti, Jo
Intersection Name: Synapse School
Weather: Fair

AUTO-CENSUS
Traffic Monitoring and Analysis
5973 Larkstone Loop
San Jose, Ca. 95123
Phone 408-533-3398

	Driveway 1 & 2		Driveway 3		Driveway 4		Driveway 5 & 6		Driveway 7		On-Street		
Start Time	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	
7:00	0	0	0	0	0	0	0	0	0	0	0	0	
7:15	1	0	2	0	0	0	1	0	0	0	0	0	
7:30	2	0	2	0	0	0	2	0	2	0	0	0	
7:45	5	1	3	0	0	0	6	0	3	1	0	0	
8:00	10	2	4	0	0	0	8	0	4	5	0	0	
8:15	27	10	5	0	0	0	10	2	4	9	0	0	
8:30	53	13	5	0	0	0	14	8	4	32	0	0	
8:45	104	21	5	0	0	0	19	20	4	59	0	0	
9:00	114	27	5	0	0	0	19	29	4	53	0	0	
Peak Hour													Hourly Totals
7:00 - 8:00	10	2	4	0	0	0	8	0	4	5	0	0	33
7:15 - 8:15	26	10	3	0	0	0	9	2	4	9	0	0	63
7:30 - 8:30	51	13	3	0	0	0	12	8	2	32	0	0	121
7:45 - 8:45	99	20	2	0	0	0	13	20	1	58	0	0	213
8:00 - 9:00	104	25	1	0	0	0	11	29	0	48	0	0	218
Peak Volumes:	**104**	**25**	**1**	**0**	**0**	**0**	**11**	**29**	**0**	**48**	**0**	**0**	**218**

27 total spaces
DWY 5, 6,7

	Lot total
800	12
815	15
830	15
845	20
900	14

116

19 total spaces
DWY 1 & 2

	Lot total	
800	5	21
815	5	25
830	8	28
845	12	**37**
900	17	36

102

	Queue
830	0
835	0
840	2
845	0
850	0
855	0
900	0

AM Peak-Hour Volume Count Worksheet

Date: 11/6/2019
Counter: Kilbee, Patti, Jo
Intersection Name: Synapse School
Weather: Fair

AUTO-CENSUS
Traffic Monitoring and Analysis
5973 Larkstone Loop
San Jose, Ca. 95123
Phone 408-533-3398

Start Time	Driveway 1 & 2 IN	Driveway 1 & 2 OUT	Driveway 3 IN	Driveway 3 OUT	Driveway 4 IN	Driveway 4 OUT	Driveway 5 & 6 IN	Driveway 5 & 6 OUT	Driveway 7 IN	Driveway 7 OUT	On-Street IN	On-Street OUT
7:00	0	0	0	0	0	0	0	0	0	0	0	0
7:15	1	0	1	0	0	0	0	0	0	0	0	0
7:30	3	1	3	0	0	0	2	0	0	1	0	0
7:45	4	1	4	0	0	0	3	0	1	1	0	0
8:00	14	3	4	0	0	0	9	0	3	2	0	0
8:15	22	5	5	0	0	0	15	3	4	5	0	0
8:30	60	8	5	0	0	0	22	13	4	21	0	0
8:45	110	16	5	0	0	0	33	38	4	48	0	0
9:00	131	21	5	0	0	0	34	43	4	59	0	0

Peak Hour	Driveway 1 & 2 IN	Driveway 1 & 2 OUT	Driveway 3 IN	Driveway 3 OUT	Driveway 4 IN	Driveway 4 OUT	Driveway 5 & 6 IN	Driveway 5 & 6 OUT	Driveway 7 IN	Driveway 7 OUT	On-Street IN	On-Street OUT	Hourly Totals
7:00 - 8:00	14	3	4	0	0	0	9	0	3	2	0	0	35
7:15 - 8:15	21	5	4	0	0	0	15	3	4	5	0	0	57
7:30 - 8:30	57	7	2	0	0	0	20	13	4	20	0	0	123
7:45 - 8:45	106	15	1	0	0	0	30	38	3	47	0	0	240
8:00 - 9:00	117	18	1	0	0	0	25	43	1	57	0	0	262
Peak Volumes:	**117**	**18**	**1**	**0**	**0**	**0**	**25**	**43**	**1**	**57**	**0**	**0**	**262**

27 total spaces
DWY 5, 6,7

	Lot total
800	9
815	18
830	19
845	24
900	26

144

19 total spaces
DWY 1 & 2

	Lot total	
800	5	18
815	7	30
830	12	36
845	16	45
900	19	**50**

118

Queue	
830	0
835	0
840	3
845	0
850	0
855	0
900	0

AM Peak-Hour Volume Count Worksheet

Date: 11/7/2019
Counter: Kilbee, Patti, Jo
Intersection Name: Synapse School
Weather: Fair

AUTO-CENSUS
Traffic Monitoring and Analysis
5973 Larkstone Loop
San Jose, Ca. 95123
Phone 408-533-3398

Start Time	Driveway 1 & 2 IN	Driveway 1 & 2 OUT	Driveway 3 IN	Driveway 3 OUT	Driveway 4 IN	Driveway 4 OUT	Driveway 5 & 6 IN	Driveway 5 & 6 OUT	Driveway 7 IN	Driveway 7 OUT	On-Street IN	On-Street OUT
7:00	0	0	0	0	0	0	0	0	0	0	0	0
7:15	2	0	1	0	0	0	1	0	0	0	0	0
7:30	3	0	2	0	0	0	1	0	1	0	0	0
7:45	4	0	3	0	0	0	3	0	4	0	0	0
8:00	11	1	4	0	0	0	6	1	4	0	0	0
8:15	26	2	5	0	0	0	11	3	5	5	0	0
8:30	34	6	5	0	0	0	18	9	5	12	0	0
8:45	105	15	5	0	0	0	29	24	5	45	0	0
9:00	122	23	5	0	0	0	31	35	5	56	0	0

Peak Hour	Driveway 1 & 2 IN	Driveway 1 & 2 OUT	Driveway 3 IN	Driveway 3 OUT	Driveway 4 IN	Driveway 4 OUT	Driveway 5 & 6 IN	Driveway 5 & 6 OUT	Driveway 7 IN	Driveway 7 OUT	On-Street IN	On-Street OUT	Hourly Totals
7:00 - 8:00	11	1	4	0	0	0	6	1	4	0	0	0	27
7:15 - 8:15	24	2	4	0	0	0	10	3	5	5	0	0	53
7:30 - 8:30	31	6	3	0	0	0	17	9	4	12	0	0	82
7:45 - 8:45	101	15	2	0	0	0	26	24	1	45	0	0	214
8:00 - 9:00	111	22	1	0	0	0	25	34	1	56	0	0	250
Peak Volumes:	**111**	**22**	**1**	**0**	**0**	**0**	**25**	**34**	**1**	**56**	**0**	**0**	**250**

27 total spaces
DWY 5, 6,7

	Lot total
800	11
815	15
830	21
845	27
900	20

138

19 total spaces
DWY 1 & 2

	Lot total	
800	5	20
815	13	33
830	11	37
845	15	**47**
900	9	34

112

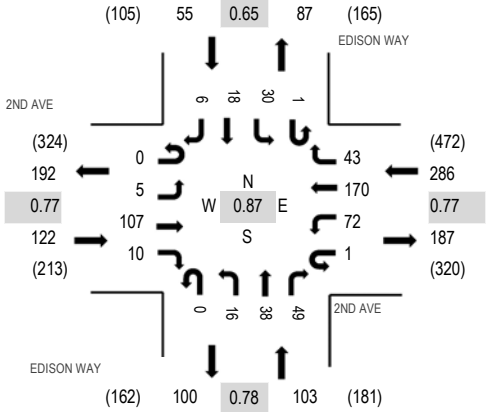
	Queue
830	0
835	0
840	2
845	5
850	0
855	0
900	0

Appendix B
Intersection Peak Hour Traffic Counts

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

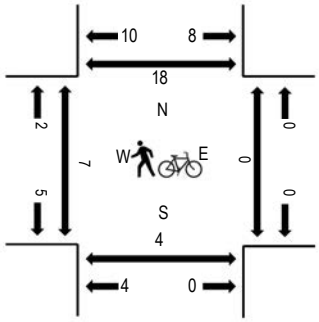
Location: 1 EDISON WAY & 2ND AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	2ND AVE Eastbound				2ND AVE Westbound				EDISON WAY Northbound				EDISON WAY Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	14	3	0	3	20	8	1	5	7	3	0	6	8	0	78	480	4	0	1	4
7:15 AM	0	1	23	3	1	5	27	14	0	2	11	9	0	2	7	2	107	564	4	1	2	4
7:30 AM	0	1	18	1	0	12	45	14	0	8	12	4	0	11	9	4	139	566	2	0	0	5
7:45 AM	0	2	34	4	0	20	49	6	0	3	7	18	0	7	5	1	156	541	5	0	2	4
8:00 AM	0	1	38	3	1	28	49	15	0	2	4	12	1	5	2	1	162	491	0	0	1	4
8:15 AM	0	1	17	2	0	12	27	8	0	3	15	15	0	7	2	0	109		0	0	0	5
8:30 AM	0	0	22	1	0	12	36	10	0	2	9	8	0	7	7	0	114		1	0	3	7
8:45 AM	0	1	22	1	1	8	33	8	0	3	9	9	0	6	3	2	106		1	0	0	1

Peak Rolling Hour Flow Rates

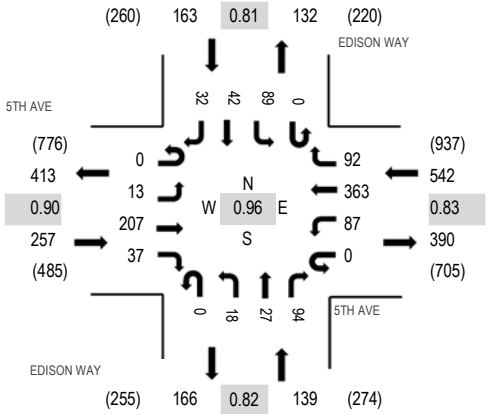
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	4	105	10	1	71	168	43	0	16	35	46	1	28	18	6	552
Mediums	0	1	2	0	0	1	2	0	0	0	3	3	0	2	0	0	14
Total	0	5	107	10	1	72	170	43	0	16	38	49	1	30	18	6	566

All Traffic Data Services Inc.

(303) 216-2439
www.alltrafficdata.net

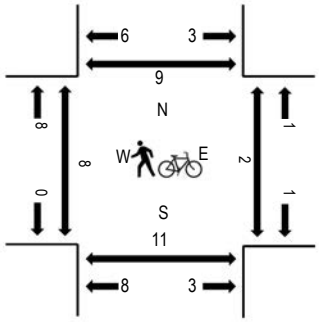
Location: 2 EDISON WAY & 5TH AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	5TH AVE Eastbound				5TH AVE Westbound				EDISON WAY Northbound				EDISON WAY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	1	35	2	0	10	69	16	0	2	2	9	0	17	8	1	172	967	0	0	3	2
7:15 AM	0	4	50	2	0	6	106	18	0	2	5	7	0	17	7	6	230	1,057	0	0	4	1
7:30 AM	0	2	47	7	0	15	118	32	0	1	4	13	0	22	11	6	278	1,101	0	2	1	2
7:45 AM	0	5	61	10	0	28	89	22	0	1	5	19	0	27	8	12	287	1,057	3	0	5	0
8:00 AM	0	3	43	4	0	19	78	19	0	8	6	30	0	23	18	11	262	989	2	0	2	6
8:15 AM	0	3	56	16	0	25	78	19	0	8	12	32	0	17	5	3	274		1	0	2	0
8:30 AM	0	3	52	17	0	11	62	7	0	23	6	33	0	8	7	5	234		0	2	2	2
8:45 AM	0	4	53	5	0	9	68	13	0	11	9	26	0	8	5	8	219		0	0	2	0

Peak Rolling Hour Flow Rates

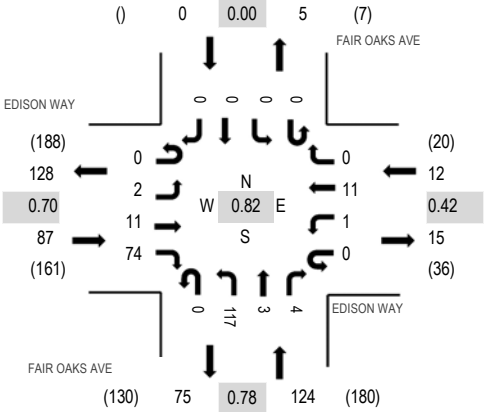
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
Lights	0	13	200	37	0	85	345	89	0	18	26	89	0	89	42	31	1,064
Mediums	0	0	7	0	0	2	15	3	0	0	1	5	0	0	0	1	34
Total	0	13	207	37	0	87	363	92	0	18	27	94	0	89	42	32	1,101

All Traffic Data Services Inc.

(303) 216-2439
www.alltrafficdata.net

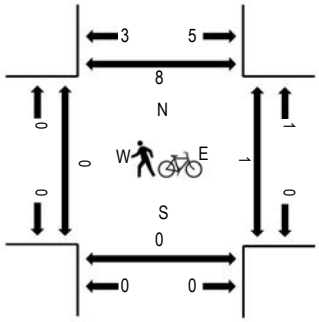
Location: 3 FAIR OAKS AVE & EDISON WAY AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	EDISON WAY Eastbound				EDISON WAY Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	1	7	8	0	0	1	0	0	10	0	1	0	0	0	0	28	145	0	0	0	2
7:15 AM	0	0	1	10	0	0	1	0	0	13	1	0	0	0	0	0	26	185	0	0	0	2
7:30 AM	0	0	6	17	0	0	4	0	0	14	0	1	0	0	0	0	42	216	0	0	0	2
7:45 AM	0	0	2	16	0	0	9	0	0	20	2	0	0	0	0	0	49	223	0	0	0	2
8:00 AM	0	0	3	30	0	0	0	0	0	34	0	1	0	0	0	0	68	216	0	1	0	2
8:15 AM	0	0	2	13	0	1	1	0	0	37	0	3	0	0	0	0	57		0	0	0	3
8:30 AM	0	2	4	15	0	0	1	0	0	26	1	0	0	0	0	0	49		0	0	0	1
8:45 AM	0	0	4	20	0	0	2	0	0	15	0	1	0	0	0	0	42		0	0	0	3

Peak Rolling Hour Flow Rates

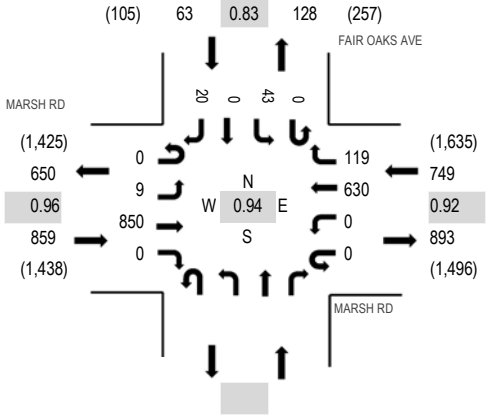
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	2	11	72	0	1	11	0	0	116	3	4	0	0	0	0	220
Mediums	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	3
Total	0	2	11	74	0	1	11	0	0	117	3	4	0	0	0	0	223

All Traffic Data Services Inc.

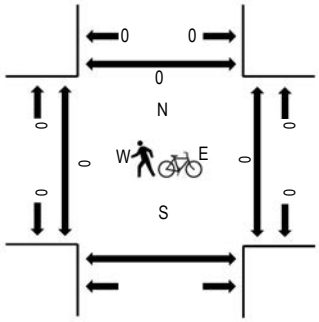
(303) 216-2439
www.alltrafficdata.net

Location: 4 FAIR OAKS AVE & MARSH RD AM
Date: Wednesday, September 5, 2018
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	126	0	0	0	197	19					0	4	0	4	350	1,507	0	0		1
7:15 AM	0	0	139	0	0	0	228	12					0	3	0	4	386	1,545	0	0		0
7:30 AM	0	0	155	0	0	0	203	37					0	7	0	5	407	1,604	0	0		0
7:45 AM	0	2	157	0	0	0	131	59					0	12	0	3	364	1,626	0	0		0
8:00 AM	0	0	196	0	0	0	125	49					0	14	0	4	388	1,671	0	0		0
8:15 AM	0	6	217	0	0	0	171	38					0	8	0	5	445		0	0		0
8:30 AM	0	3	221	0	0	0	174	18					0	9	0	4	429		0	0		0
8:45 AM	0	0	216	0	0	0	160	14					0	12	0	7	409		0	0		0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	4	0	0	0	8	0					0	0	0	0	12
Lights	0	9	825	0	0	0	586	110					0	43	0	20	1,593
Mediums	0	0	21	0	0	0	36	9					0	0	0	0	66
Total	0	9	850	0	0	0	630	119					0	43	0	20	1,671

All Traffic Data Services Inc.
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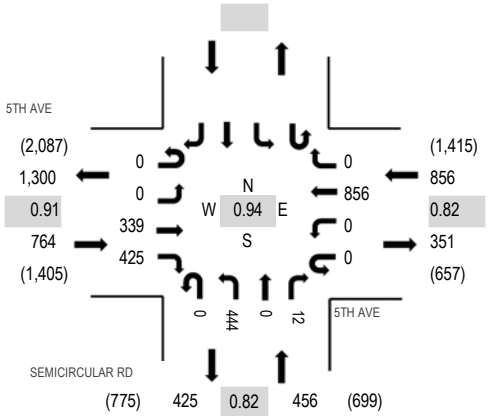
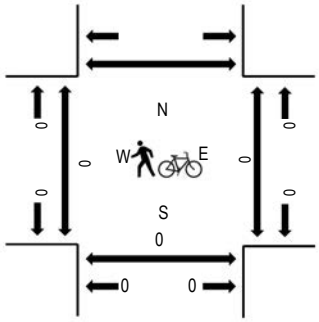
Location: 5 SEMICIRCULAR RD & 5TH AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	5TH AVE Eastbound				5TH AVE Westbound				SEMICIRCULAR RD Northbound				Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	42	45	0	0	104	0	0	46	0	3					240	1,678	0	0	0	
7:15 AM	0	0	62	68	0	0	175	0	0	70	0	2					377	1,990	0	0	0	
7:30 AM	0	0	72	92	0	0	266	0	0	107	0	1					538	2,076	0	0	0	
7:45 AM	0	0	91	109	0	0	216	0	0	104	0	3					523	1,971	0	0	0	
8:00 AM	0	0	89	109	0	0	215	0	0	135	0	4					552	1,841	0	0	0	
8:15 AM	0	0	87	115	0	0	159	0	0	98	0	4					463		0	0	0	
8:30 AM	0	0	93	135	0	0	151	0	0	47	0	7					433		0	0	0	
8:45 AM	0	0	94	102	0	0	129	0	0	65	0	3					393		0	0	0	

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0					2
Lights	0	0	337	417	0	0	832	0	0	438	0	12					2,036
Mediums	0	0	2	8	0	0	23	0	0	5	0	0					38
Total	0	0	339	425	0	0	856	0	0	444	0	12					2,076

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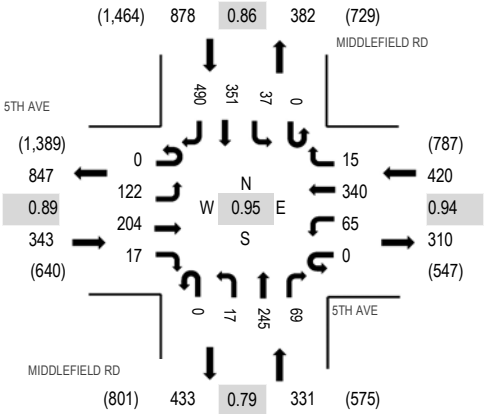
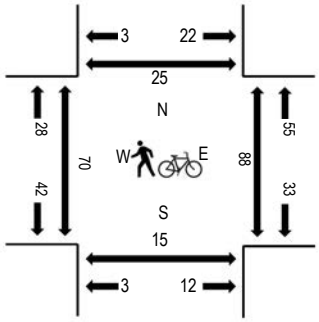
Location: 6 MIDDLEFIELD RD & 5TH AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	5TH AVE Eastbound				5TH AVE Westbound				MIDDLEFIELD RD Northbound				MIDDLEFIELD RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	19	21	3	0	6	54	7	0	0	30	8	0	9	69	44	270	1,693	6	3	4	2
7:15 AM	0	19	39	6	0	20	79	11	0	3	43	6	0	8	75	90	399	1,943	3	7	1	0
7:30 AM	0	22	40	7	0	12	96	5	0	2	46	8	0	13	92	164	507	1,972	8	23	6	0
7:45 AM	0	33	62	2	0	13	87	5	0	1	40	21	0	13	109	131	517	1,878	27	26	1	4
8:00 AM	0	37	40	7	0	19	76	0	0	7	88	21	0	9	100	116	520	1,773	21	24	8	11
8:15 AM	0	30	62	1	0	21	81	5	0	7	71	19	0	2	50	79	428		14	11	0	6
8:30 AM	0	30	51	6	0	18	74	8	0	0	63	15	0	5	75	68	413		6	1	1	0
8:45 AM	0	43	58	2	0	8	70	12	0	3	62	11	0	6	80	57	412		6	2	1	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Lights	0	121	203	17	0	62	329	14	0	13	239	67	0	35	339	452	1,891
Mediums	0	1	1	0	0	3	11	1	0	3	6	2	0	2	12	38	80
Total	0	122	204	17	0	65	340	15	0	17	245	69	0	37	351	490	1,972

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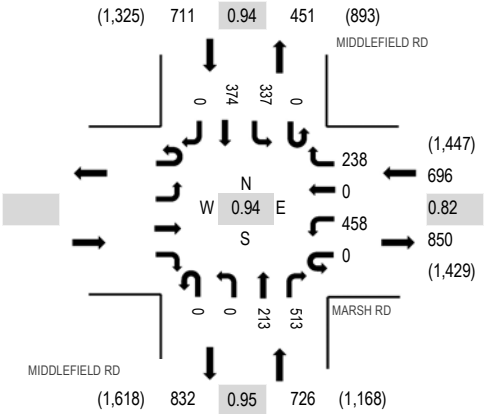
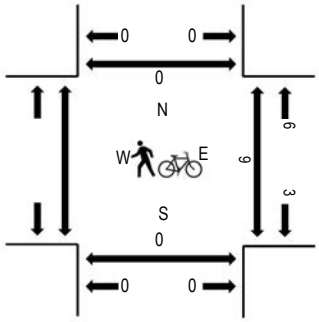
Location: 7 MIDDLEFIELD RD & MARSH RD AM
Date: Wednesday, September 5, 2018
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				MIDDLEFIELD RD Northbound				MIDDLEFIELD RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM					0	109	0	94	0	0	16	63	0	61	48	0	391	1,807		3	0	0
7:15 AM					0	127	0	102	0	0	34	60	0	75	83	0	481	1,913		4	0	0
7:30 AM					0	122	0	62	0	0	38	72	0	88	121	0	503	1,998		0	0	0
7:45 AM					0	91	0	44	0	0	52	107	0	53	85	0	432	2,037		1	0	0
8:00 AM					0	95	0	43	0	0	58	132	0	70	99	0	497	2,133		1	0	0
8:15 AM					0	121	0	65	0	0	57	134	0	79	110	0	566			4	0	0
8:30 AM					0	125	0	56	0	0	45	126	0	92	98	0	542			2	0	0
8:45 AM					0	117	0	74	0	0	53	121	0	96	67	0	528			2	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks					0	3	0	4	0	0	1	1	0	4	0	0	13
Lights					0	429	0	216	0	0	206	497	0	326	350	0	2,024
Mediums					0	26	0	18	0	0	6	15	0	7	24	0	96
Total					0	458	0	238	0	0	213	513	0	337	374	0	2,133

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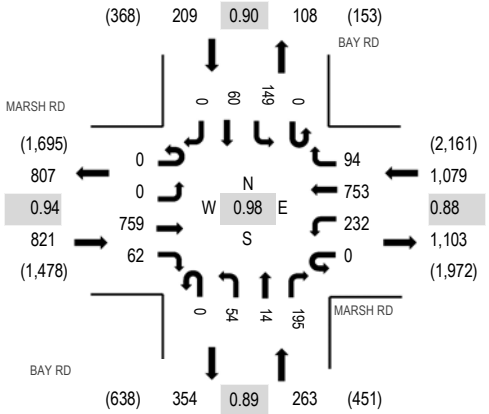
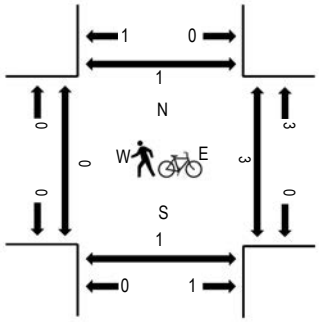
Location: 8 BAY RD & MARSH RD AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:30 AM - 08:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				BAY RD Northbound				BAY RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	125	6	0	37	210	10	0	6	0	23	0	21	3	1	442	2,146	0	0	0	1
7:15 AM	0	0	135	11	0	44	226	13	0	9	2	42	0	32	2	3	519	2,275	0	1	0	1
7:30 AM	0	0	142	6	0	66	260	7	0	15	2	45	0	29	19	1	592	2,356	0	0	0	0
7:45 AM	0	0	152	22	0	65	197	33	0	25	3	46	0	36	14	0	593	2,372	0	0	0	0
8:00 AM	0	0	185	14	0	57	170	34	0	9	1	49	0	39	13	0	571	2,312	0	0	0	1
8:15 AM	0	0	206	9	0	61	193	17	0	9	5	51	0	36	13	0	600		0	0	0	0
8:30 AM	0	0	216	17	0	49	193	10	0	11	5	49	0	38	20	0	608		0	0	0	0
8:45 AM	0	0	211	21	0	53	149	7	0	7	4	33	0	31	16	1	533		0	1	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	2	0	0	0	7	0	0	0	0	0	0	0	0	0	9
Lights	0	0	739	60	0	228	707	91	0	54	14	195	0	147	59	0	2,294
Mediums	0	0	18	2	0	4	39	3	0	0	0	0	0	2	1	0	69
Total	0	0	759	62	0	232	753	94	0	54	14	195	0	149	60	0	2,372

All Traffic Data Services Inc.

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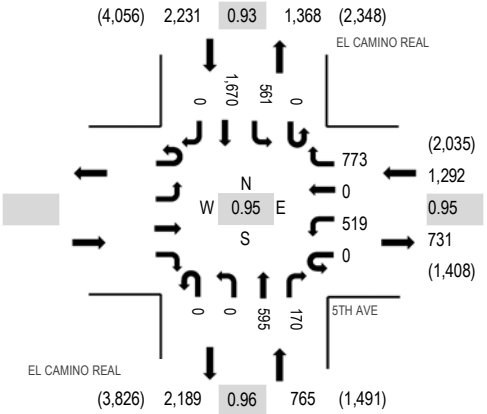
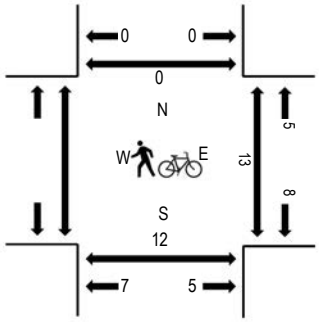
Location: 9 EL CAMINO REAL & 5TH AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	Eastbound				5TH AVE Westbound				EL CAMINO REAL Northbound				EL CAMINO REAL Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM					0	59	0	79	0	0	84	20	0	75	215	0	532	3,414		4	1	0
7:15 AM					0	99	0	116	0	0	108	28	0	107	308	0	766	3,925		5	0	0
7:30 AM					0	143	0	191	0	0	104	37	0	109	444	0	1,028	4,288		3	1	0
7:45 AM					0	143	0	198	0	0	131	47	0	149	420	0	1,088	4,265		1	2	0
8:00 AM					0	121	0	203	0	0	180	35	0	134	370	0	1,043	4,168		4	5	0
8:15 AM					0	112	0	181	0	0	180	51	0	169	436	0	1,129			2	0	0
8:30 AM					0	84	0	110	0	0	180	63	0	176	392	0	1,005			4	3	0
8:45 AM					0	81	0	115	0	0	187	56	1	152	399	0	991			1	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks					0	2	0	0	0	0	5	0	0	0	5	0	12
Lights					0	502	0	755	0	0	567	168	0	552	1,623	0	4,167
Mediums					0	15	0	18	0	0	23	2	0	9	42	0	109
Total					0	519	0	773	0	0	595	170	0	561	1,670	0	4,288

All Traffic Data Services Inc.
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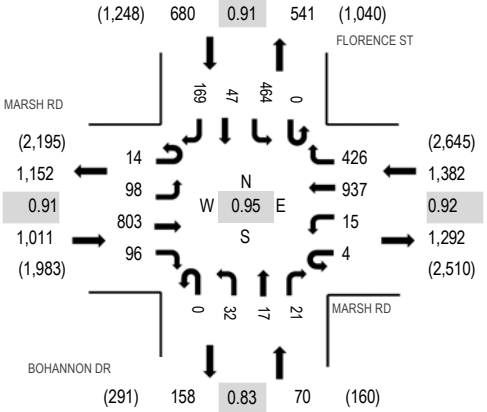
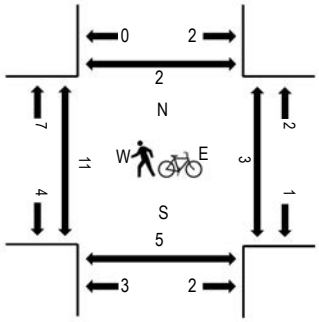
Location: 10 BOHANNON DR & MARSH RD AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				BOHANNON DR Northbound				FLORENCE ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	1	14	139	14	0	5	241	129	0	5	11	9	0	92	7	28	695	3,021	0	2	1	0
7:15 AM	2	23	164	14	2	5	232	103	0	15	2	9	0	130	6	45	752	3,124	0	1	0	0
7:30 AM	6	17	184	20	0	3	285	110	0	7	4	6	0	132	11	44	829	3,143	6	1	1	0
7:45 AM	4	27	181	18	4	5	219	118	0	4	1	4	0	106	12	42	745	3,054	3	1	3	1
8:00 AM	3	24	223	28	0	1	233	119	0	13	2	4	0	102	8	38	798	3,015	2	0	1	0
8:15 AM	1	30	215	30	0	6	200	79	0	8	10	7	0	124	16	45	771		0	0	0	0
8:30 AM	1	32	249	34	0	4	197	78	0	10	4	11	0	74	6	40	740		3	0	0	0
8:45 AM	0	23	238	24	0	2	188	77	0	8	3	3	0	98	12	30	706		3	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	2	0	0	0	6	6	0	0	0	0	0	5	0	0	19
Lights	14	98	787	92	3	14	891	400	0	29	17	21	0	443	45	165	3,019
Mediums	0	0	14	4	1	1	40	20	0	3	0	0	0	16	2	4	105
Total	14	98	803	96	4	15	937	426	0	32	17	21	0	464	47	169	3,143

All Traffic Data Services Inc.
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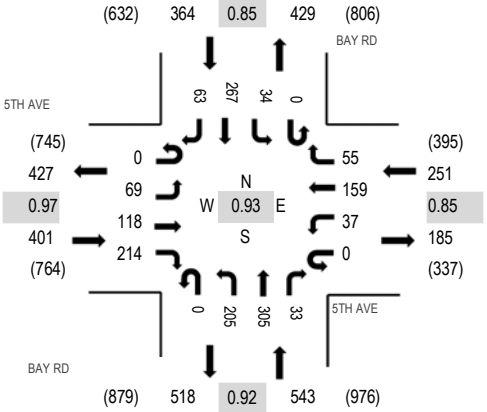
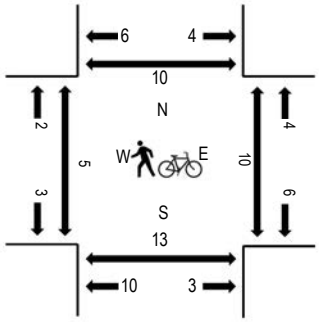
Location: 11 BAY RD & 5TH AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	5TH AVE Eastbound				5TH AVE Westbound				BAY RD Northbound				BAY RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	16	26	31	0	2	30	9	0	44	75	3	0	6	40	12	294	1,470	2	0	0	0
7:15 AM	0	16	23	49	0	8	39	12	0	41	77	8	0	4	65	16	358	1,559	2	3	2	3
7:30 AM	0	18	26	58	0	13	45	16	0	57	72	9	0	15	74	18	421	1,528	1	3	1	3
7:45 AM	0	19	32	53	0	5	46	20	0	57	82	8	0	6	54	15	397	1,392	2	2	4	2
8:00 AM	0	16	37	54	0	11	29	7	0	50	74	8	0	9	74	14	383	1,297	0	2	4	2
8:15 AM	0	21	37	44	0	7	19	6	0	46	73	3	0	4	54	13	327		4	2	1	1
8:30 AM	0	29	29	33	0	7	26	3	0	36	54	5	0	6	39	18	285		4	0	1	2
8:45 AM	0	31	25	41	0	4	25	6	0	37	54	3	0	5	59	12	302		0	0	1	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	1	0	0	1	0	0	0	3	0	0	0	4	0	9
Lights	0	67	112	202	0	34	153	54	0	198	292	31	0	32	255	57	1,487
Mediums	0	2	6	11	0	3	5	1	0	7	10	2	0	2	8	6	63
Total	0	69	118	214	0	37	159	55	0	205	305	33	0	34	267	63	1,559

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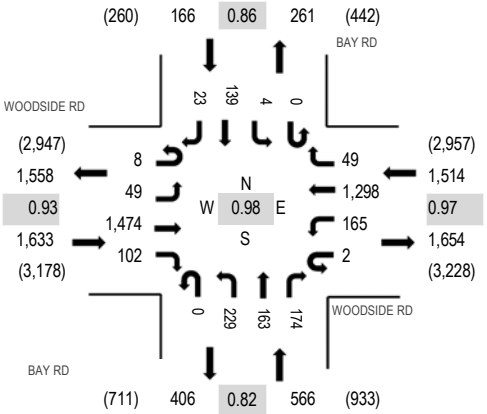
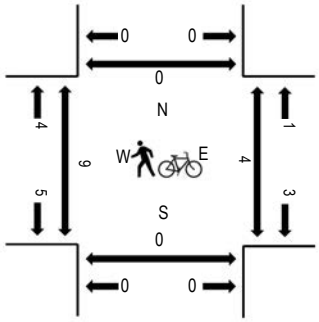
Location: 12 BAY RD & WOODSIDE RD AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	WOODSIDE RD Eastbound				WOODSIDE RD Westbound				BAY RD Northbound				BAY RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	1	4	355	17	0	29	308	9	0	32	17	23	0	0	12	2	809	3,686	0	0	0	0
7:15 AM	2	9	347	18	1	52	332	14	0	43	33	32	0	0	24	5	912	3,849	0	0	0	0
7:30 AM	1	11	414	15	0	42	348	15	0	48	27	31	0	1	29	7	989	3,879	1	0	0	0
7:45 AM	4	14	347	28	2	49	314	10	0	73	45	44	0	2	36	8	976	3,721	4	0	0	0
8:00 AM	3	12	317	27	0	41	336	15	0	60	57	56	0	0	45	3	972	3,642	0	2	0	0
8:15 AM	0	12	396	32	0	33	300	9	0	48	34	43	0	1	29	5	942		3	1	0	0
8:30 AM	2	8	312	13	0	40	312	14	0	26	27	51	0	0	23	3	831		1	5	0	3
8:45 AM	1	11	416	29	1	27	291	13	0	26	22	35	0	1	21	3	897		0	1	1	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	16	1	0	1	18	2	0	2	0	10	0	0	0	1	51
Lights	8	46	1,408	99	2	143	1,204	47	0	217	159	147	0	4	136	21	3,641
Mediums	0	3	50	2	0	21	76	0	0	10	4	17	0	0	3	1	187
Total	8	49	1,474	102	2	165	1,298	49	0	229	163	174	0	4	139	23	3,879

All Traffic Data Services Inc.

(303) 216-2439
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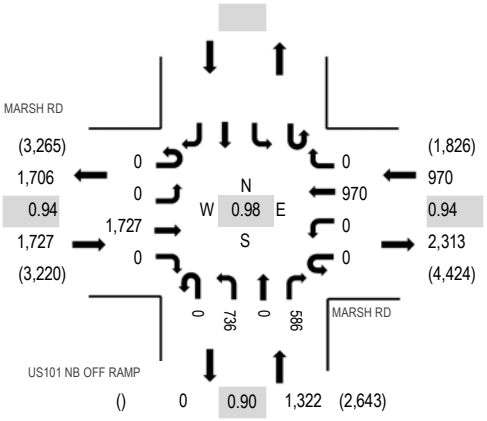
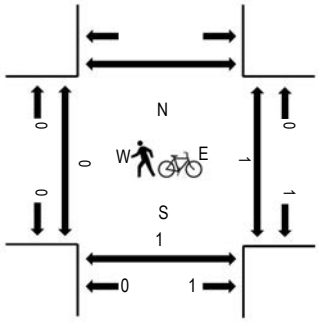
Location: 14 US101 NB OFF RAMP & MARSH RD AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				US101 NB OFF RAMP Northbound				Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	278	0	0	0	205	0	0	233	0	98					814	3,707	0	0	0	
7:15 AM	0	0	363	0	0	0	268	0	0	175	0	91					897	3,888	0	0	0	
7:30 AM	0	0	419	0	0	0	235	0	0	221	0	142					1,017	4,019	0	0	0	
7:45 AM	0	0	424	0	0	0	249	0	0	175	0	131					979	3,956	0	1	0	
8:00 AM	0	0	422	0	0	0	257	0	0	175	0	141					995	3,982	0	0	0	
8:15 AM	0	0	462	0	0	0	229	0	0	165	0	172					1,028		0	0	0	
8:30 AM	0	0	417	0	0	0	196	0	0	138	0	203					954		0	0	0	
8:45 AM	0	0	435	0	0	0	187	0	0	157	0	226					1,005		0	0	0	

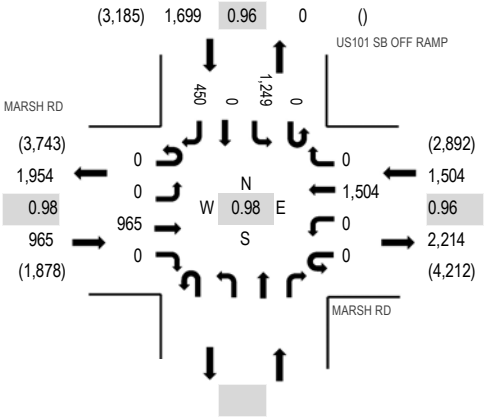
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	14	0	0	0	7	0	0	2	0	9					32
Lights	0	0	1,641	0	0	0	872	0	0	716	0	540					3,769
Mediums	0	0	72	0	0	0	91	0	0	18	0	37					218
Total	0	0	1,727	0	0	0	970	0	0	736	0	586					4,019

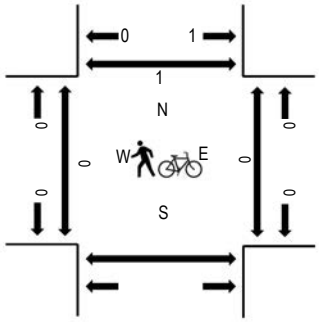
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

Location: 15 US101 SB OFF RAMP & MARSH RD AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				Northbound				US101 SB OFF RAMP Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	170	0	0	0	404	0					0	230	0	112	916	3,926	0	0		0
7:15 AM	0	0	195	0	0	0	389	0					0	246	0	114	944	4,068	0	0		0
7:30 AM	0	0	218	0	0	0	396	0					0	304	0	122	1,040	4,168	0	0		0
7:45 AM	0	0	222	0	0	0	362	0					0	328	0	114	1,026	4,099	0	0		0
8:00 AM	0	0	251	0	0	0	396	0					0	310	0	101	1,058	4,029	0	0		0
8:15 AM	0	0	274	0	0	0	350	0					0	307	0	113	1,044		0	0		0
8:30 AM	0	0	274	0	0	0	295	0					0	292	0	110	971		0	0		0
8:45 AM	0	0	274	0	0	0	300	0					0	317	0	65	956		0	0		1

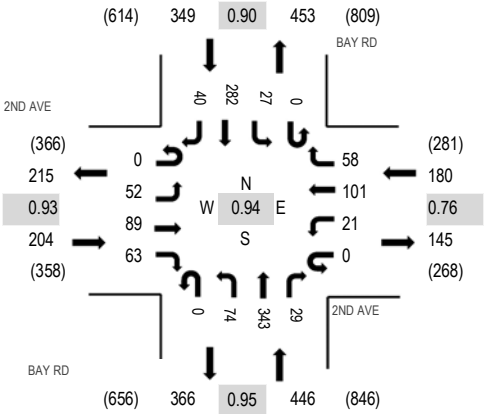
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	5	0	0	0	10	0					0	15	0	4	34
Lights	0	0	936	0	0	0	1,430	0					0	1,180	0	433	3,979
Mediums	0	0	24	0	0	0	64	0					0	54	0	13	155
Total	0	0	965	0	0	0	1,504	0					0	1,249	0	450	4,168

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

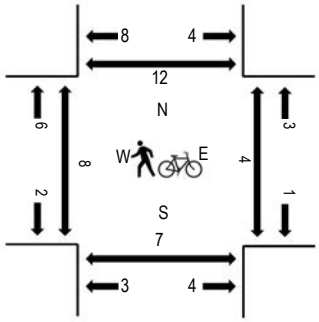
Location: 16 BAY RD & 2ND AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	2ND AVE Eastbound				2ND AVE Westbound				BAY RD Northbound				BAY RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	9	11	14	0	3	9	7	0	17	84	8	0	4	39	6	211	1,096	3	1	2	0
7:15 AM	0	15	17	17	0	7	19	8	0	16	89	5	0	5	63	4	265	1,179	3	1	0	7
7:30 AM	0	11	25	19	0	3	20	18	0	25	85	6	0	5	80	9	306	1,158	1	0	2	1
7:45 AM	0	16	23	13	0	7	36	16	0	14	93	12	0	9	64	11	314	1,084	2	2	3	3
8:00 AM	0	10	24	14	0	4	26	16	0	19	76	6	0	8	75	16	294	1,003	0	1	1	1
8:15 AM	0	11	18	14	0	4	9	11	0	21	71	7	0	10	56	12	244		6	1	4	2
8:30 AM	0	13	10	16	0	9	19	8	0	21	61	11	0	8	50	6	232		5	0	0	2
8:45 AM	0	9	17	12	0	9	13	0	0	16	72	11	0	8	64	2	233		2	0	1	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	0	0	0	0	1	0	0	2	1	0	0	0	2	0	7
Lights	0	48	86	61	0	19	100	55	0	71	328	27	0	25	266	37	1,123
Mediums	0	3	3	2	0	2	0	3	0	1	14	2	0	2	14	3	49
Total	0	52	89	63	0	21	101	58	0	74	343	29	0	27	282	40	1,179

All Traffic Data Services Inc.
(303) 216-2439
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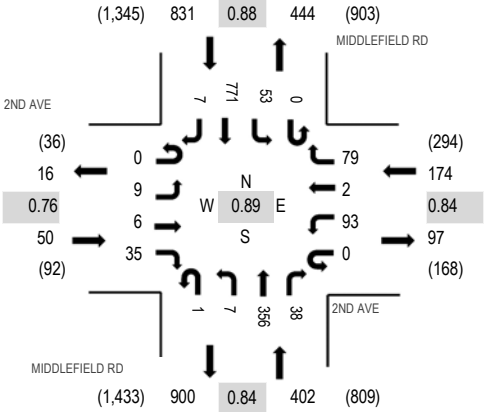
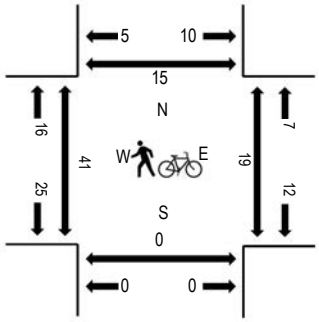
Location: 17 MIDDLEFIELD RD & 2ND AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	2ND AVE Eastbound				2ND AVE Westbound				MIDDLEFIELD RD Northbound				MIDDLEFIELD RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	8	0	13	0	4	0	19	0	1	62	7	0	7	103	2	226	1,275	2	5	1	4
7:15 AM	0	2	1	6	0	15	0	16	0	3	83	2	0	17	155	2	302	1,457	4	3	0	4
7:30 AM	0	5	1	14	0	25	0	25	0	0	76	6	0	7	205	1	365	1,437	11	5	0	5
7:45 AM	0	2	1	11	0	23	0	18	1	2	74	13	0	13	222	2	382	1,352	15	4	0	4
8:00 AM	0	0	3	4	0	30	2	20	0	2	123	17	0	16	189	2	408	1,265	10	7	0	2
8:15 AM	0	2	2	3	0	7	1	22	0	1	112	6	0	6	117	3	282		4	5	0	1
8:30 AM	0	1	0	7	0	16	0	21	0	3	88	10	0	11	122	1	280		5	1	1	0
8:45 AM	0	2	0	4	0	13	1	16	0	2	106	9	0	13	124	5	295		2	1	0	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2
Lights	0	9	6	35	0	93	2	78	1	7	348	38	0	49	749	7	1,422
Mediums	0	0	0	0	0	0	0	1	0	0	7	0	0	4	21	0	33
Total	0	9	6	35	0	93	2	79	1	7	356	38	0	53	771	7	1,457

All Traffic Data Services Inc.
(303) 216-2439
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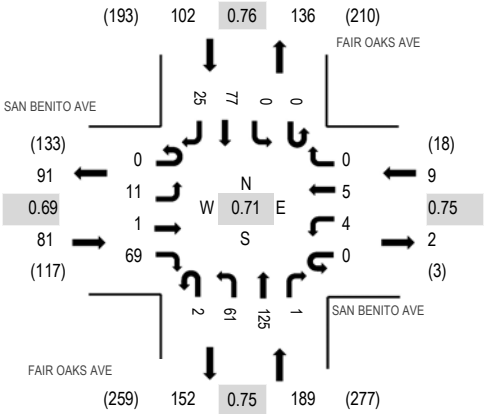
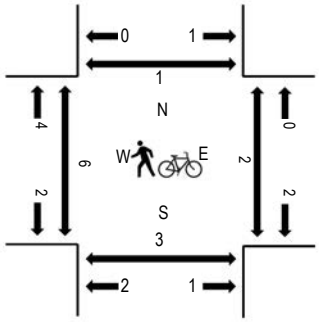
Location: 18 FAIR OAKS AVE & SAN BENITO AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	SAN BENITO AVE Eastbound				SAN BENITO AVE Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	2	0	0	0	0	1	3	19	0	0	0	11	1	37	246	2	0	0	0
7:15 AM	0	0	0	4	0	1	2	0	0	5	18	0	0	0	18	2	50	343	1	0	0	0
7:30 AM	0	3	0	8	0	1	2	0	0	9	15	0	0	0	24	8	70	377	3	1	0	0
7:45 AM	0	2	0	13	0	0	0	0	1	23	27	0	0	0	17	6	89	381	1	0	1	0
8:00 AM	0	4	1	26	0	2	1	0	0	24	39	0	0	0	29	8	134	359	3	0	2	0
8:15 AM	0	5	0	17	0	0	2	0	1	6	35	0	0	0	13	5	84		0	0	0	0
8:30 AM	0	0	0	13	0	2	2	0	0	8	24	1	0	0	18	6	74		2	2	0	1
8:45 AM	1	3	1	14	0	1	2	0	0	2	16	0	0	0	22	5	67		0	3	0	0

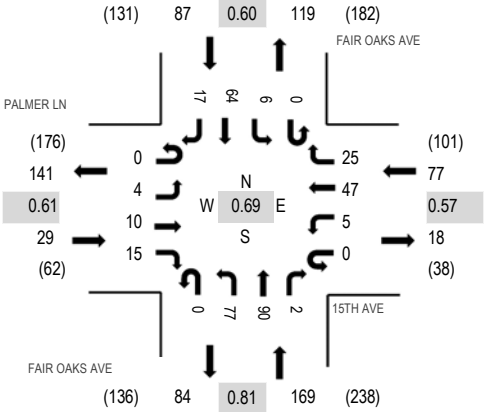
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	11	1	68	0	4	5	0	2	61	124	0	0	0	76	25	377
Mediums	0	0	0	1	0	0	0	0	0	0	1	1	0	0	1	0	4
Total	0	11	1	69	0	4	5	0	2	61	125	1	0	0	77	25	381

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

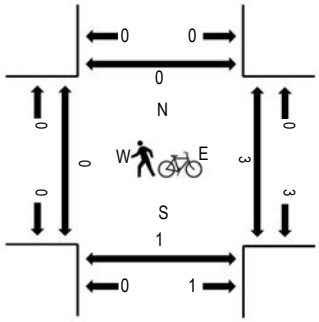
Location: 19 FAIR OAKS AVE & 15TH AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	PALMER LN Eastbound				15TH AVE Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	1	0	1	0	2	0	3	13	1	0	0	5	3	29	222	1	1	1	0
7:15 AM	0	1	2	1	0	0	3	3	0	4	10	0	0	0	7	1	32	325	1	0	0	0
7:30 AM	0	0	4	3	0	0	6	2	0	17	12	0	0	0	12	4	60	362	0	0	0	0
7:45 AM	0	0	1	5	0	1	12	8	0	23	28	1	0	1	14	7	101	360	0	0	1	0
8:00 AM	0	2	5	3	0	1	23	10	0	21	30	1	0	2	29	5	132	310	0	1	0	0
8:15 AM	0	2	0	4	0	3	6	5	0	16	20	0	0	3	9	1	69		0	2	0	0
8:30 AM	0	1	2	7	0	0	3	6	1	8	15	1	0	3	10	1	58		0	0	0	0
8:45 AM	0	1	10	7	0	0	5	1	0	3	10	0	0	1	12	1	51		4	0	0	0

Peak Rolling Hour Flow Rates

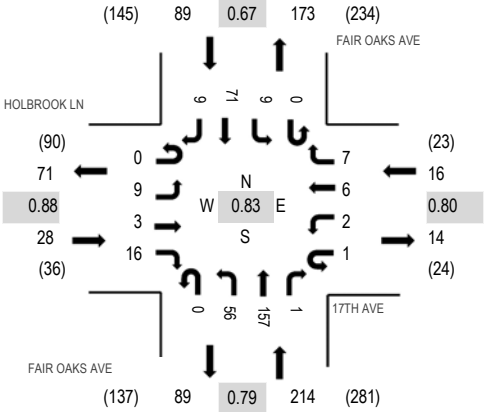
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	4	10	15	0	5	46	25	0	77	89	1	0	6	64	17	359
Mediums	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	3
Total	0	4	10	15	0	5	47	25	0	77	90	2	0	6	64	17	362

All Traffic Data Services Inc.

(303) 216-2439
www.alltrafficdata.net

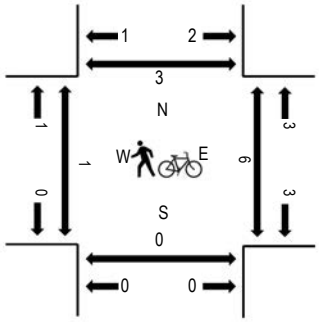
Location: 20 FAIR OAKS AVE & 17TH AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	HOLBROOK LN Eastbound				17TH AVE Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	0	1	0	0	2	15	1	0	0	7	1	27	229	1	0	0	0
7:15 AM	0	3	0	1	0	0	0	0	0	3	10	0	0	0	9	2	28	306	0	1	1	1
7:30 AM	0	0	1	4	0	0	3	2	0	16	26	0	0	2	14	3	71	347	1	1	0	2
7:45 AM	0	5	1	2	1	0	1	2	0	21	47	0	0	3	16	4	103	318	0	0	0	0
8:00 AM	0	2	1	4	0	1	2	2	0	12	47	0	0	3	28	2	104	256	0	2	0	1
8:15 AM	0	2	0	6	0	1	0	1	0	7	37	1	0	1	13	0	69		0	3	0	0
8:30 AM	0	0	1	1	0	1	1	2	0	1	19	1	0	2	11	2	42		0	1	0	1
8:45 AM	0	0	2	0	0	0	2	0	0	2	12	1	0	2	18	2	41		2	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	9	3	16	1	2	6	6	0	55	156	1	0	8	70	9	342
Mediums	0	0	0	0	0	0	0	1	0	1	1	0	0	1	1	0	5
Total	0	9	3	16	1	2	6	7	0	56	157	1	0	9	71	9	347

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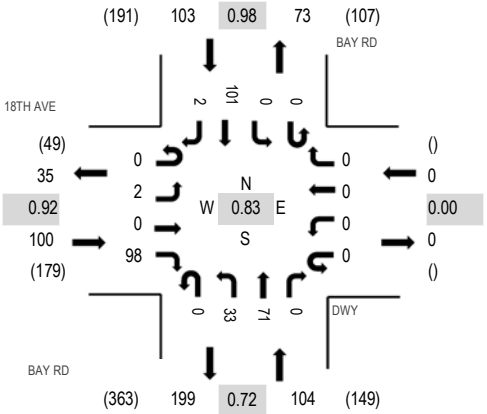
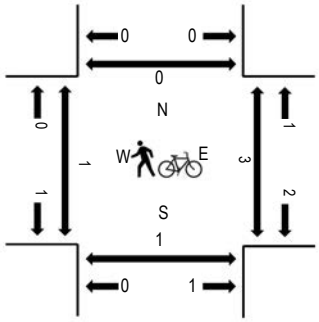
Location: 21 BAY RD & DWY AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	18TH AVE Eastbound				DWY Westbound				BAY RD Northbound				BAY RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	0	10	0	0	0	0	0	2	7	0	0	0	13	0	32	226	0	0	0	0
7:15 AM	0	0	0	16	0	0	0	0	0	4	12	0	0	0	22	0	54	286	1	1	0	0
7:30 AM	0	1	0	26	0	0	0	0	0	5	5	0	0	0	26	0	63	305	0	1	0	0
7:45 AM	0	0	0	23	0	0	0	0	0	10	24	0	0	0	20	0	77	307	0	0	0	0
8:00 AM	0	1	0	27	0	0	0	0	0	15	21	0	0	0	27	1	92	293	0	1	0	0
8:15 AM	0	1	0	24	0	0	0	0	0	4	16	0	0	0	27	1	73		0	0	0	0
8:30 AM	0	0	0	24	0	0	0	0	0	4	10	0	0	0	27	0	65		1	2	1	0
8:45 AM	0	1	0	25	0	0	0	0	0	2	8	0	0	0	26	1	63		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	2	0	97	0	0	0	0	0	31	71	0	0	0	100	2	303
Mediums	0	0	0	1	0	0	0	0	0	2	0	0	0	0	1	0	4
Total	0	2	0	98	0	0	0	0	0	33	71	0	0	0	101	2	307

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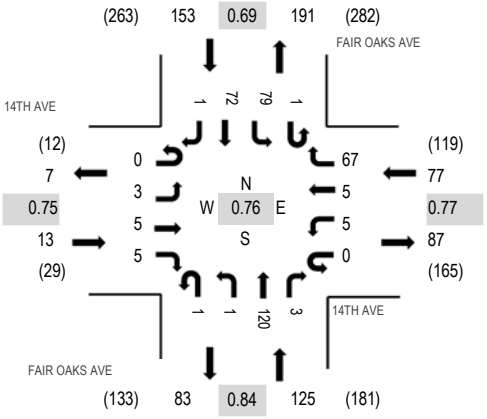
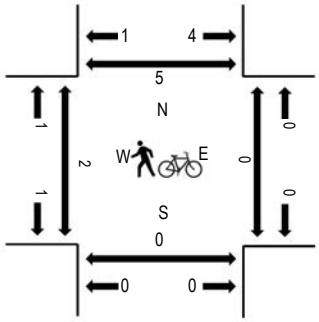
Location: 22 FAIR OAKS AVE & 14TH AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	14TH AVE Eastbound				14TH AVE Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	2	2	1	0	4	0	7	0	0	14	0	0	9	4	0	43	257	0	0	0	0
7:15 AM	0	1	1	2	0	2	3	10	0	0	14	0	0	18	5	0	56	335	0	1	0	0
7:30 AM	0	1	2	0	0	1	1	7	0	0	15	1	0	21	13	0	62	360	0	1	0	0
7:45 AM	0	1	0	2	0	3	1	21	0	1	35	0	0	14	18	0	96	368	0	0	0	0
8:00 AM	0	1	1	1	0	0	1	22	0	0	37	0	0	24	34	0	121	335	0	0	0	0
8:15 AM	0	0	2	0	0	1	0	13	0	0	33	1	0	21	10	0	81		0	0	0	2
8:30 AM	0	1	2	2	0	1	3	11	1	0	15	2	1	20	10	1	70		2	0	0	3
8:45 AM	0	2	2	0	0	0	1	6	0	0	12	0	0	22	18	0	63		4	0	0	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Lights	0	3	5	5	0	5	5	67	1	1	117	3	1	78	71	1	363
Mediums	0	0	0	0	0	0	0	0	0	0	2	0	0	1	1	0	4
Total	0	3	5	5	0	5	5	67	1	1	120	3	1	79	72	1	368

All Traffic Data Services Inc.

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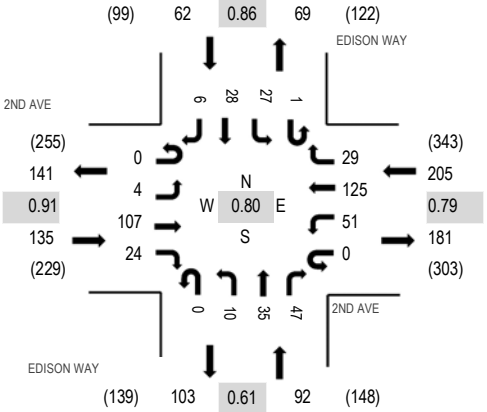
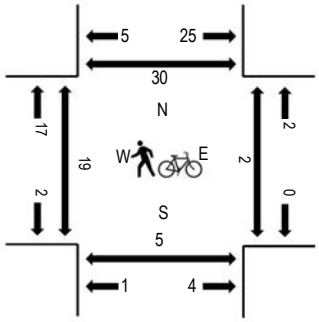
Location: 1 EDISON WAY & 2ND AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	2ND AVE Eastbound				2ND AVE Westbound				EDISON WAY Northbound				EDISON WAY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	1	2	13	0	0	2	22	6	0	2	4	6	0	3	4	1	66	325	2	0	0	4
2:15 PM	0	0	19	4	0	3	19	4	0	3	6	9	0	10	5	2	84	356	0	0	0	0
2:30 PM	1	2	20	3	0	6	29	9	0	2	6	8	0	4	1	0	91	392	1	1	2	1
2:45 PM	0	3	25	1	0	5	27	6	0	3	5	2	0	3	2	2	84	455	0	0	0	0
3:00 PM	0	3	21	6	0	11	25	3	0	2	7	6	0	8	5	0	97	494	4	1	1	6
3:15 PM	0	1	25	6	0	12	30	8	0	3	9	8	0	5	11	2	120		8	0	0	8
3:30 PM	0	0	29	7	0	15	42	8	0	3	13	22	0	7	7	1	154		6	0	4	13
3:45 PM	0	0	32	5	0	13	28	10	0	2	6	11	1	7	5	3	123		1	1	0	3

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	4	103	22	0	51	124	25	0	10	34	44	1	26	28	6	478
Mediums	0	0	4	2	0	0	1	4	0	0	1	3	0	1	0	0	16
Total	0	4	107	24	0	51	125	29	0	10	35	47	1	27	28	6	494

All Traffic Data Services Inc.
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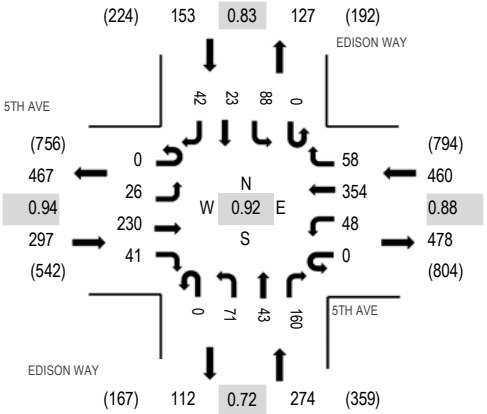
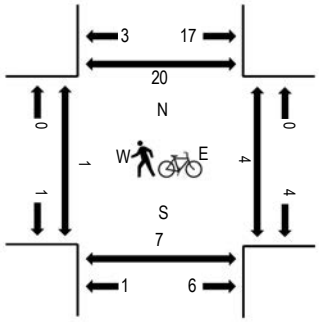
Location: 2 EDISON WAY & 5TH AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	5TH AVE Eastbound				5TH AVE Westbound				EDISON WAY Northbound				EDISON WAY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	0	51	2	0	6	69	6	0	7	3	6	0	12	4	1	167	735	1	0	0	0
2:15 PM	0	4	52	1	0	6	49	8	0	3	7	12	0	15	1	3	161	832	1	0	4	0
2:30 PM	0	4	48	2	0	6	75	12	0	3	1	7	0	9	2	4	173	976	0	0	1	2
2:45 PM	0	2	75	4	0	15	66	16	0	5	2	29	0	10	6	4	234	1,126	0	0	0	0
3:00 PM	0	1	49	14	0	14	84	15	0	11	10	36	0	14	5	11	264	1,184	0	1	0	3
3:15 PM	0	6	60	14	0	21	78	15	0	20	11	35	0	26	6	13	305		0	0	5	10
3:30 PM	0	11	61	8	0	6	82	14	0	29	14	52	0	27	8	11	323		0	2	1	6
3:45 PM	0	8	60	5	0	7	110	14	0	11	8	37	0	21	4	7	292		1	0	1	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	2
Lights	0	25	221	41	0	47	352	56	0	70	43	156	0	87	22	42	1,162
Mediums	0	1	8	0	0	1	2	2	0	1	0	3	0	1	1	0	20
Total	0	26	230	41	0	48	354	58	0	71	43	160	0	88	23	42	1,184

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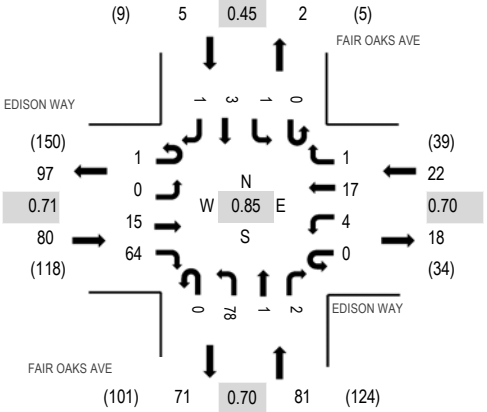
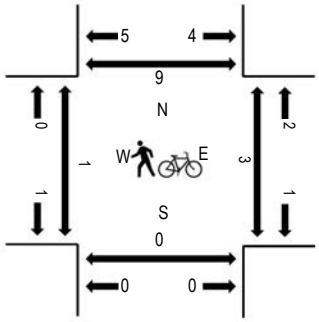
Location: 3 FAIR OAKS AVE & EDISON WAY PM
Date: Wednesday, September 5, 2018
Peak Hour: 02:45 PM - 03:45 PM
Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	EDISON WAY Eastbound				EDISON WAY Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	0	1	7	0	0	2	0	0	5	1	1	0	0	0	1	18	102	4	0	0	0
2:15 PM	0	0	3	3	0	0	2	0	0	13	0	1	0	1	0	0	23	129	0	0	0	4
2:30 PM	0	0	2	8	0	0	2	2	0	9	0	0	0	2	0	0	25	161	0	0	0	0
2:45 PM	0	0	1	13	0	0	2	1	0	13	1	0	0	1	3	1	36	188	0	2	0	1
3:00 PM	0	0	7	11	0	2	8	0	0	17	0	0	0	0	0	0	45	188	0	0	0	1
3:15 PM	0	0	3	17	0	1	5	0	0	29	0	0	0	0	0	0	55		0	1	0	5
3:30 PM	1	0	4	23	0	1	2	0	0	19	0	2	0	0	0	0	52		0	0	0	1
3:45 PM	0	0	4	10	0	2	7	0	0	12	0	1	0	0	0	0	36		0	0	1	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2
Lights	1	0	11	63	0	4	14	1	0	77	1	2	0	1	2	0	177
Mediums	0	0	3	1	0	0	2	0	0	1	0	0	0	0	1	1	9
Total	1	0	15	64	0	4	17	1	0	78	1	2	0	1	3	1	188

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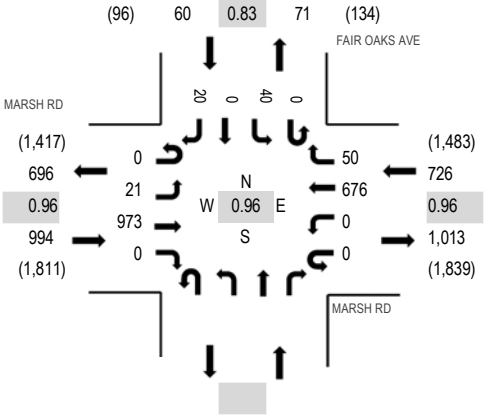
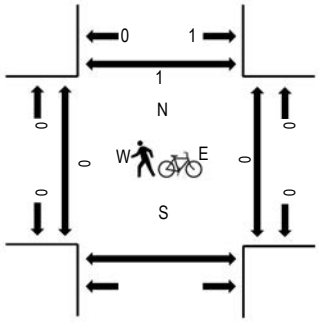
Location: 4 FAIR OAKS AVE & MARSH RD PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				Northbound				FAIR OAKS AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	0	3	194	0	0	0	165	14					0	4	0	8	388	1,610	0	0		0
2:15 PM	0	3	186	0	0	0	184	7					0	6	0	2	388	1,648	0	0		0
2:30 PM	0	7	211	0	0	0	173	15					0	2	0	3	411	1,724	0	0		1
2:45 PM	0	1	212	0	0	0	186	13					0	11	0	0	423	1,749	0	0		0
3:00 PM	0	11	217	0	0	0	175	10					0	10	0	3	426	1,780	0	0		0
3:15 PM	0	5	249	0	0	0	174	18					0	12	0	6	464		0	0		0
3:30 PM	0	4	255	0	0	0	149	11					0	9	0	8	436		0	0		1
3:45 PM	0	1	252	0	0	0	178	11					0	9	0	3	454		0	0		0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	9	0	0	0	1	0					0	0	0	0	10
Lights	0	21	923	0	0	0	658	47					0	38	0	20	1,707
Mediums	0	0	41	0	0	0	17	3					0	2	0	0	63
Total	0	21	973	0	0	0	676	50					0	40	0	20	1,780

All Traffic Data Services Inc.
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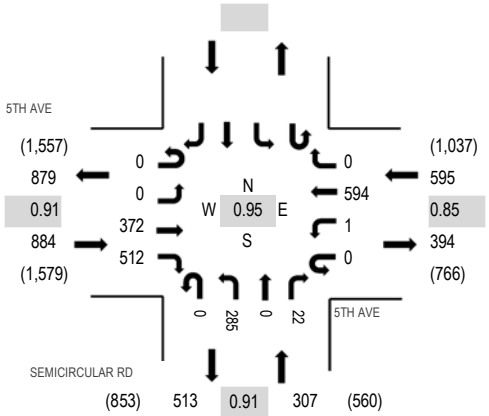
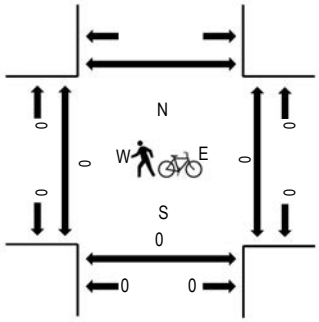
Location: 5 SEMICIRCULAR RD & 5TH AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	5TH AVE Eastbound				5TH AVE Westbound				SEMICIRCULAR RD Northbound				Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	0	0	80	61	0	0	122	0	0	52	0	3					318	1,390	0	0	0	
2:15 PM	0	0	87	65	0	0	112	0	0	63	0	5					332	1,474	0	0	0	
2:30 PM	0	0	89	78	0	0	113	0	0	56	0	5					341	1,597	0	0	0	
2:45 PM	1	0	98	136	0	0	95	0	0	64	0	5					399	1,724	0	0	0	
3:00 PM	0	0	92	102	0	0	137	0	0	63	0	8					402	1,786	0	0	0	
3:15 PM	0	0	97	153	0	0	125	0	0	76	0	4					455		0	0	0	
3:30 PM	0	0	96	130	0	0	158	0	0	80	0	4					468		0	0	0	
3:45 PM	0	0	87	127	0	1	174	0	0	66	0	6					461		0	0	0	

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	3	1	0	0	0	0	0	0	0	0					4
Lights	0	0	359	502	0	1	587	0	0	281	0	22					1,752
Mediums	0	0	10	9	0	0	7	0	0	4	0	0					30
Total	0	0	372	512	0	1	594	0	0	285	0	22					1,786

All Traffic Data Services Inc.
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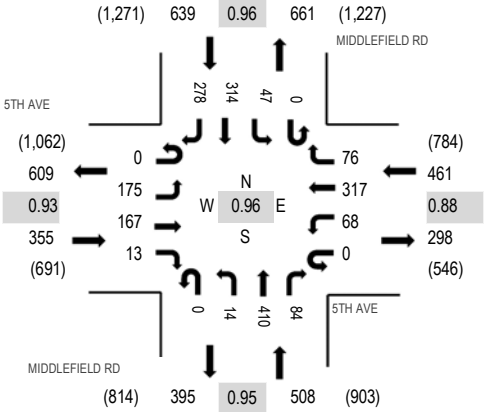
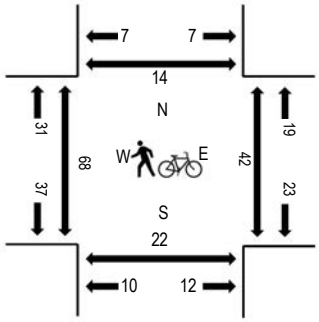
Location: 6 MIDDLEFIELD RD & 5TH AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	5TH AVE Eastbound				5TH AVE Westbound				MIDDLEFIELD RD Northbound				MIDDLEFIELD RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	38	32	5	0	18	47	10	0	3	79	9	0	13	75	67	396	1,686	6	7	1	0
2:15 PM	0	39	41	2	0	8	46	18	0	3	76	12	0	9	87	70	411	1,774	7	6	3	1
2:30 PM	0	45	33	4	0	10	63	20	0	2	73	11	0	11	104	49	425	1,828	2	9	0	0
2:45 PM	0	47	47	3	0	14	52	17	0	0	104	23	0	7	89	51	454	1,905	9	3	2	1
3:00 PM	0	46	49	3	0	15	71	18	0	4	92	23	0	13	85	65	484	1,963	17	8	2	2
3:15 PM	0	43	39	2	0	17	57	30	0	3	96	26	0	10	78	64	465		17	19	6	4
3:30 PM	0	38	43	3	0	21	87	14	0	5	112	16	0	13	76	74	502		18	9	8	3
3:45 PM	0	48	36	5	0	15	102	14	0	2	110	19	0	11	75	75	512		16	6	5	5

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
Lights	0	166	161	13	0	68	312	75	0	14	398	80	0	47	307	275	1,916
Mediums	0	8	6	0	0	0	5	1	0	0	11	4	0	0	7	3	45
Total	0	175	167	13	0	68	317	76	0	14	410	84	0	47	314	278	1,963

All Traffic Data Services Inc.

(303) 216-2439
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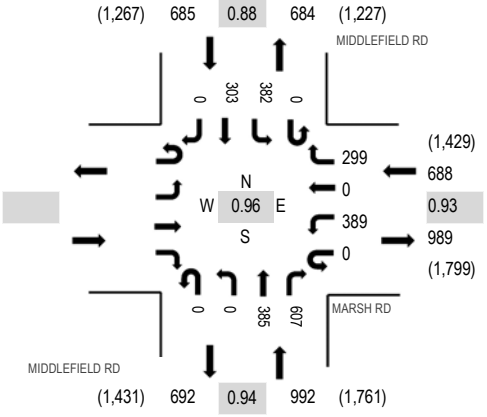
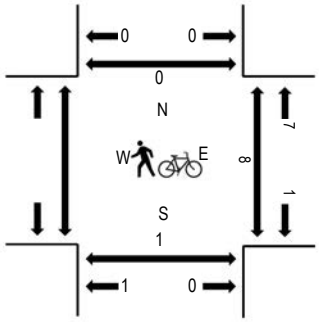
Location: 7 MIDDLEFIELD RD & MARSH RD PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				MIDDLEFIELD RD Northbound				MIDDLEFIELD RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM					0	110	0	67	0	0	62	128	0	71	59	0	497	2,092	0	0	0	0
2:15 PM					0	119	0	81	0	0	60	110	0	78	74	0	522	2,139	1	0	0	0
2:30 PM					0	110	0	65	0	0	67	142	0	74	66	0	524	2,233	1	0	0	0
2:45 PM					0	121	0	68	0	0	73	127	0	80	80	0	549	2,299	0	0	0	0
3:00 PM					0	103	0	75	0	0	75	136	0	100	55	0	544	2,365	1	0	0	0
3:15 PM					0	88	0	78	0	0	105	151	0	99	95	0	616		0	0	0	0
3:30 PM					0	96	0	69	0	0	98	167	0	79	81	0	590		3	0	0	0
3:45 PM					0	102	0	77	0	0	107	153	0	104	72	0	615		1	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks					0	1	0	1	0	0	1	1	0	7	0	0	11
Lights					0	375	0	290	0	0	375	591	0	361	294	0	2,286
Mediums					0	13	0	8	0	0	9	15	0	14	9	0	68
Total					0	389	0	299	0	0	385	607	0	382	303	0	2,365

All Traffic Data Services Inc.

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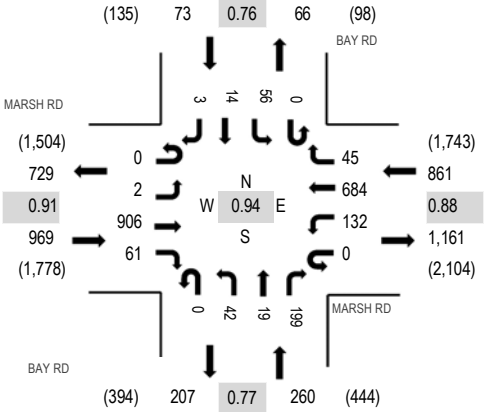
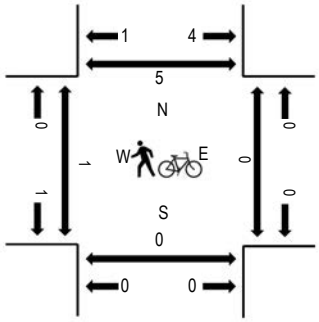
Location: 8 BAY RD & MARSH RD PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				BAY RD Northbound				BAY RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	1	177	7	0	30	156	5	0	16	0	39	0	13	2	3	449	1,937	0	1	0	0
2:15 PM	0	0	184	12	0	30	200	12	0	9	0	32	0	10	1	1	491	1,965	0	0	0	0
2:30 PM	0	0	184	11	0	31	156	5	0	16	0	27	0	12	2	1	445	2,029	0	1	0	0
2:45 PM	0	0	224	9	0	45	207	5	0	10	4	31	0	10	7	0	552	2,138	0	0	0	2
3:00 PM	0	0	193	18	0	35	163	6	0	8	4	34	0	15	1	0	477	2,163	0	0	0	0
3:15 PM	0	0	214	20	0	33	188	20	0	12	3	51	0	9	4	1	555		0	0	0	0
3:30 PM	0	1	258	7	0	25	163	12	0	9	6	49	0	17	5	2	554		0	0	0	2
3:45 PM	0	1	241	16	0	39	170	7	0	13	6	65	0	15	4	0	577		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	6	0	0	0	1	0	0	0	0	0	0	0	0	0	7
Lights	0	2	865	61	0	128	662	43	0	42	19	187	0	55	14	2	2,080
Mediums	0	0	35	0	0	4	21	2	0	0	0	12	0	1	0	1	76
Total	0	2	906	61	0	132	684	45	0	42	19	199	0	56	14	3	2,163

All Traffic Data Services Inc.
(303) 216-2439
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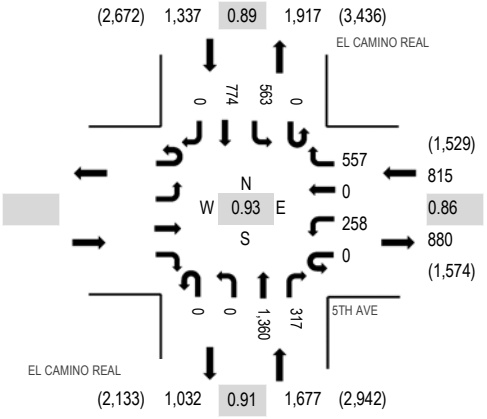
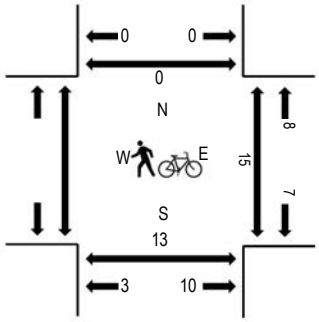
Location: 9 EL CAMINO REAL & 5TH AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	Eastbound				5TH AVE Westbound				EL CAMINO REAL Northbound				EL CAMINO REAL Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM					0	71	0	107	0	0	244	29	1	106	229	0	787	3,314		3	3	0
2:15 PM					0	71	0	128	0	0	251	57	0	92	205	0	804	3,413		3	4	0
2:30 PM					0	47	0	115	0	0	284	60	2	112	214	0	834	3,555		0	1	0
2:45 PM					0	60	0	115	0	0	272	68	0	170	204	0	889	3,691		7	1	0
3:00 PM					0	56	0	138	0	0	319	76	0	105	192	0	886	3,829		0	1	0
3:15 PM					0	56	0	101	0	0	323	76	0	184	206	0	946			0	4	0
3:30 PM					0	68	0	158	0	0	350	71	0	128	195	0	970			2	2	0
3:45 PM					0	78	0	160	0	0	368	94	0	146	181	0	1,027			9	6	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks					0	0	0	0	0	0	9	0	0	0	2	0	11
Lights					0	253	0	542	0	0	1,315	303	0	552	758	0	3,723
Mediums					0	5	0	15	0	0	36	14	0	11	14	0	95
Total					0	258	0	557	0	0	1,360	317	0	563	774	0	3,829

All Traffic Data Services Inc.
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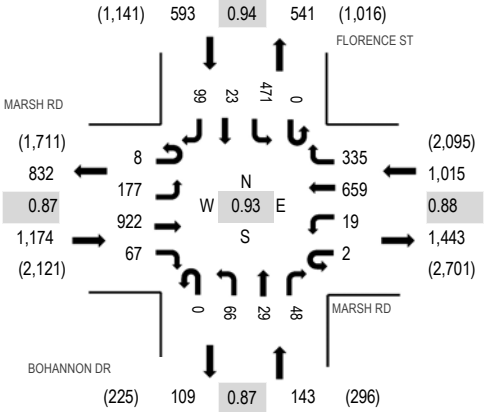
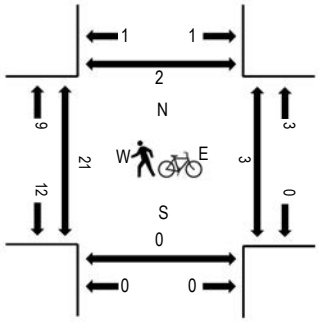
Location: 10 BOHANNON DR & MARSH RD PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				BOHANNON DR Northbound				FLORENCE ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	36	200	13	0	6	166	81	0	18	6	20	0	103	6	17	672	2,728	3	0	0	0
2:15 PM	1	26	179	8	1	9	188	77	0	16	9	13	0	74	12	25	638	2,720	2	0	1	0
2:30 PM	1	23	178	15	0	10	156	78	0	22	11	11	0	137	8	25	675	2,848	0	1	0	0
2:45 PM	1	29	221	16	2	6	208	92	0	9	7	11	0	108	7	26	743	2,878	8	0	0	2
3:00 PM	1	44	188	6	1	6	154	77	0	20	7	14	0	113	9	24	664	2,925	9	1	0	1
3:15 PM	4	42	241	11	0	8	188	99	0	14	6	18	0	106	6	23	766		7	0	0	0
3:30 PM	3	39	235	22	0	1	142	73	0	17	6	9	0	127	6	25	705		2	0	0	0
3:45 PM	0	52	258	28	1	4	175	86	0	15	10	7	0	125	2	27	790		3	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	8	0	0	1	1	0	0	0	0	1	0	0	1	0	13
Lights	8	172	880	65	2	18	642	323	0	64	29	46	0	453	21	96	2,819
Mediums	0	4	34	2	0	0	16	12	0	2	0	1	0	18	1	3	93
Total	8	177	922	67	2	19	659	335	0	66	29	48	0	471	23	99	2,925

All Traffic Data Services Inc.
(303) 216-2439
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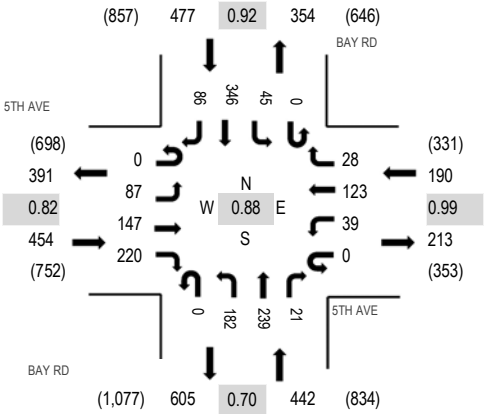
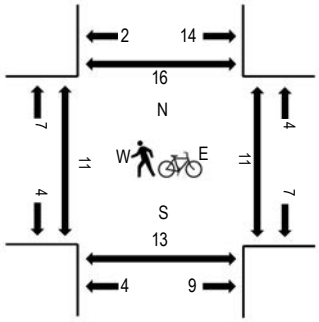
Location: 11 BAY RD & 5TH AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	5TH AVE Eastbound				5TH AVE Westbound				BAY RD Northbound				BAY RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	11	12	40	0	6	27	3	0	33	53	5	0	4	56	16	266	1,211	25	3	24	3
2:15 PM	0	17	11	38	0	8	14	2	0	29	45	9	0	3	62	11	249	1,293	0	2	1	0
2:30 PM	0	13	24	42	0	7	24	8	0	48	66	8	0	11	91	20	362	1,403	0	2	0	0
2:45 PM	0	13	37	40	0	8	27	7	0	36	54	6	0	10	74	22	334	1,452	0	3	1	1
3:00 PM	0	16	43	50	0	12	30	6	0	31	46	3	0	9	85	17	348	1,563	0	3	0	0
3:15 PM	0	25	23	49	0	10	33	3	0	42	61	3	0	10	81	19	359		1	2	2	4
3:30 PM	0	24	40	74	0	7	32	9	0	42	47	9	0	15	93	19	411		3	3	5	6
3:45 PM	0	22	41	47	0	10	28	10	0	67	85	6	0	11	87	31	445		6	3	5	5

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	1	0	0	0	0	0	1	3	0	0	0	1	0	7
Lights	0	86	138	215	0	39	122	28	0	179	227	19	0	41	333	85	1,512
Mediums	0	1	8	4	0	0	1	0	0	2	9	2	0	4	12	1	44
Total	0	87	147	220	0	39	123	28	0	182	239	21	0	45	346	86	1,563

All Traffic Data Services Inc.
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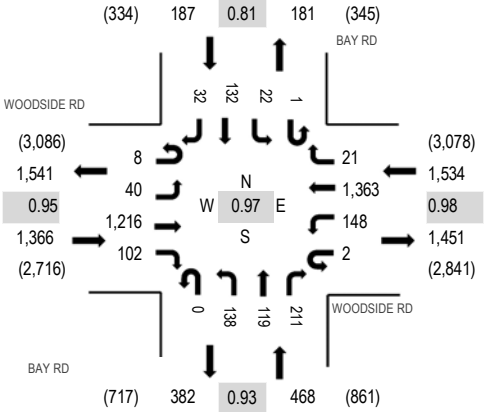
www.alltrafficdata.net

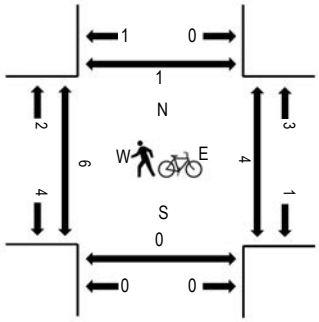
Location: 12 BAY RD & WOODSIDE RD PM
Date: Wednesday, September 5, 2018
Peak Hour: 02:45 PM - 03:45 PM
Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	WOODSIDE RD Eastbound				WOODSIDE RD Westbound				BAY RD Northbound				BAY RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	2	14	312	19	0	43	352	1	0	23	23	36	0	5	18	6	854	3,439	0	0	0	0
2:15 PM	2	7	323	28	1	37	352	5	0	37	21	29	0	7	22	4	875	3,428	2	0	0	0
2:30 PM	0	10	287	15	4	35	319	8	0	39	24	45	0	2	29	6	823	3,471	3	1	0	0
2:45 PM	4	10	327	23	0	21	363	7	0	26	29	44	0	9	18	6	887	3,555	0	0	0	0
3:00 PM	1	9	251	25	0	48	323	2	0	37	28	66	0	7	33	13	843	3,550	1	0	0	1
3:15 PM	2	7	322	27	0	41	347	7	0	36	42	48	1	3	29	6	918		1	4	0	0
3:30 PM	1	14	316	27	2	38	330	5	0	39	20	53	0	3	52	7	907		0	0	0	0
3:45 PM	3	7	290	31	0	22	361	4	0	33	40	43	0	6	36	6	882		3	0	0	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	8	0	0	3	8	0	0	0	1	1	0	0	0	0	22
Lights	8	39	1,155	101	2	140	1,340	20	0	134	117	196	1	21	129	32	3,435
Mediums	0	0	53	1	0	5	15	1	0	4	1	14	0	1	3	0	98
Total	8	40	1,216	102	2	148	1,363	21	0	138	119	211	1	22	132	32	3,555

All Traffic Data Services Inc.
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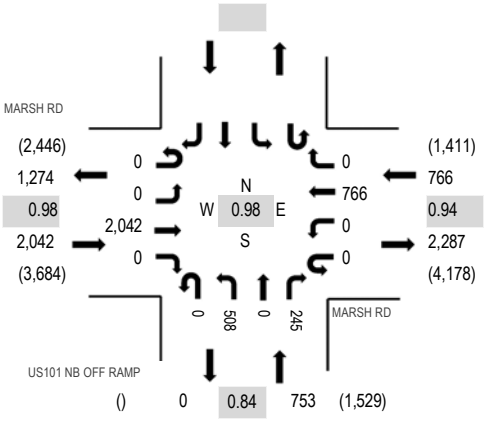
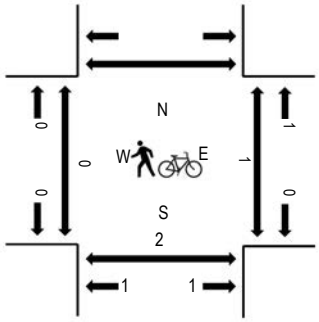
Location: 14 US101 NB OFF RAMP & MARSH RD PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				US101 NB OFF RAMP Northbound				Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	0	0	338	0	0	0	167	0	0	118	0	53					676	3,063	0	0	0	
2:15 PM	0	0	405	0	0	0	146	0	0	120	0	58					729	3,273	0	0	0	
2:30 PM	0	0	455	0	0	0	172	0	0	121	0	64					812	3,450	0	0	0	
2:45 PM	0	0	444	0	0	0	160	0	0	168	0	74					846	3,529	0	0	0	
3:00 PM	0	0	497	0	0	0	203	0	0	127	0	59					886	3,561	0	0	1	
3:15 PM	0	0	523	0	0	0	179	0	0	142	0	62					906		0	0	0	
3:30 PM	0	0	514	0	0	0	202	0	0	108	0	67					891		0	0	0	
3:45 PM	0	0	508	0	0	0	182	0	0	131	0	57					878		0	0	1	

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	16	0	0	0	1	0	0	2	0	8					27
Lights	0	0	1,930	0	0	0	734	0	0	489	0	223					3,376
Mediums	0	0	96	0	0	0	31	0	0	17	0	14					158
Total	0	0	2,042	0	0	0	766	0	0	508	0	245					3,561

All Traffic Data Services Inc.
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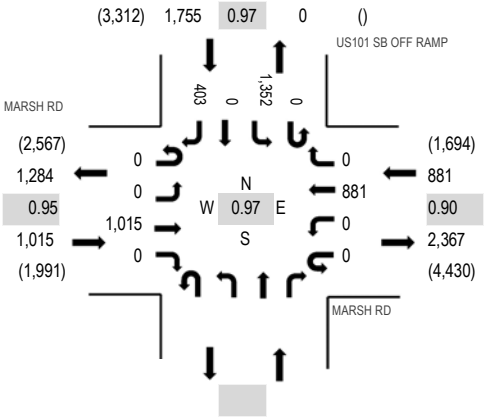
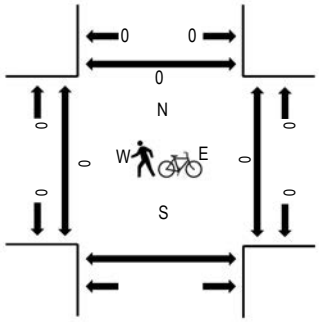
Location: 15 US101 SB OFF RAMP & MARSH RD PM
Date: Wednesday, September 5, 2018
Peak Hour: 02:45 PM - 03:45 PM
Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				Northbound				US101 SB OFF RAMP Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	0	248	0	0	0	206	0					0	204	0	122	780	3,364	0	0		0
2:15 PM	0	0	210	0	1	0	189	0					0	272	0	147	819	3,488	0	0		0
2:30 PM	0	0	241	0	0	0	190	0					0	298	0	108	837	3,609	0	0		0
2:45 PM	0	0	235	0	0	0	245	0					0	329	0	119	928	3,651	0	0		0
3:00 PM	0	0	252	0	0	0	199	0					0	342	0	111	904	3,633	0	0		0
3:15 PM	0	0	257	0	0	0	240	0					0	353	0	90	940		0	0		0
3:30 PM	0	0	271	0	0	0	197	0					0	328	0	83	879		0	0		0
3:45 PM	0	0	277	0	0	0	227	0					0	312	0	94	910		0	0		0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	2	0					0	20	0	5	28
Lights	0	0	973	0	0	0	851	0					0	1,265	0	387	3,476
Mediums	0	0	41	0	0	0	28	0					0	67	0	11	147
Total	0	0	1,015	0	0	0	881	0					0	1,352	0	403	3,651

All Traffic Data Services Inc.
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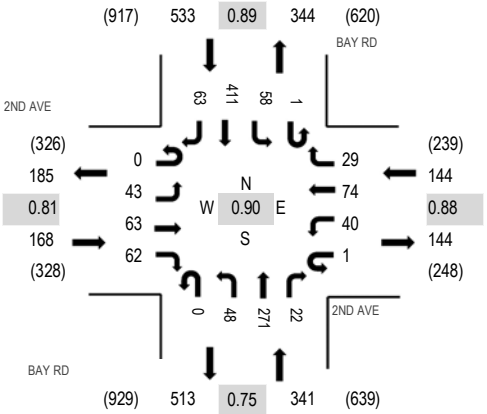
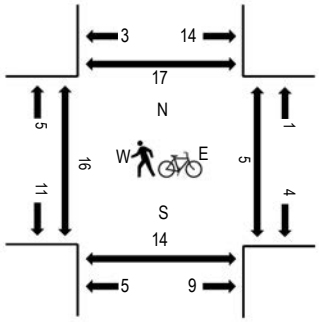
Location: 16 BAY RD & 2ND AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	2ND AVE Eastbound				2ND AVE Westbound				BAY RD Northbound				BAY RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	9	5	13	0	5	12	3	0	19	49	6	1	4	66	7	199	937	4	1	1	1
2:15 PM	0	12	20	13	0	8	6	7	0	8	47	7	0	4	65	15	212	1,006	0	3	24	0
2:30 PM	0	8	11	34	0	7	12	6	0	15	67	7	0	11	87	11	276	1,055	0	3	2	0
2:45 PM	0	7	12	16	0	13	12	4	0	12	54	7	2	10	89	12	250	1,107	0	1	0	4
3:00 PM	0	11	12	16	0	11	17	4	0	12	56	5	0	13	95	16	268	1,186	2	0	2	0
3:15 PM	0	8	9	7	0	8	20	3	0	9	64	4	1	11	104	13	261		4	0	1	1
3:30 PM	0	16	23	22	1	9	19	12	0	10	59	8	0	18	114	17	328		6	0	5	5
3:45 PM	0	8	19	17	0	12	18	10	0	17	92	5	0	16	98	17	329		4	5	6	11

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
Lights	0	42	61	54	1	39	73	29	0	44	260	22	0	54	404	60	1,143
Mediums	0	0	2	8	0	1	1	0	0	4	10	0	1	4	7	3	41
Total	0	43	63	62	1	40	74	29	0	48	271	22	1	58	411	63	1,186

All Traffic Data Services Inc.
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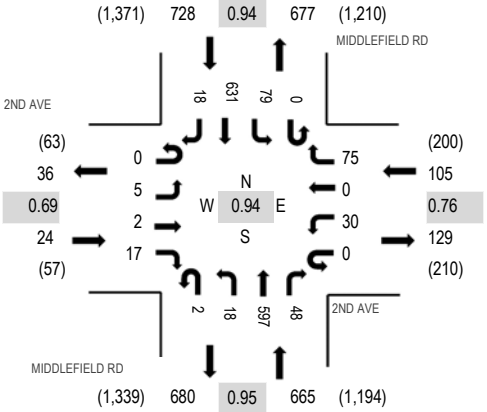
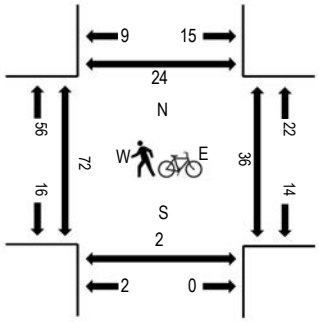
Location: 17 MIDDLEFIELD RD & 2ND AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	2ND AVE Eastbound				2ND AVE Westbound				MIDDLEFIELD RD Northbound				MIDDLEFIELD RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	2	0	10	0	7	0	13	1	1	108	6	0	9	145	4	306	1,300	5	1	0	2
2:15 PM	0	2	1	7	0	15	0	7	0	3	111	12	0	9	148	1	316	1,355	8	7	0	2
2:30 PM	0	0	0	5	0	8	1	17	0	7	120	10	1	11	153	3	336	1,406	6	2	0	1
2:45 PM	0	1	1	4	0	12	0	15	1	7	136	6	0	16	143	0	342	1,474	5	2	0	0
3:00 PM	0	0	1	5	0	8	0	9	0	5	135	9	0	19	166	4	361	1,522	12	5	1	4
3:15 PM	0	4	0	7	0	11	0	17	1	4	154	11	0	16	139	3	367		15	12	1	7
3:30 PM	0	1	1	4	0	8	0	27	0	3	152	20	0	22	161	5	404		34	10	0	9
3:45 PM	0	0	0	1	0	3	0	22	1	6	156	8	0	22	165	6	390		10	6	0	3

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
Lights	0	5	2	16	0	30	0	75	2	18	582	45	0	77	622	17	1,491
Mediums	0	0	0	1	0	0	0	0	0	0	13	3	0	2	9	1	29
Total	0	5	2	17	0	30	0	75	2	18	597	48	0	79	631	18	1,522

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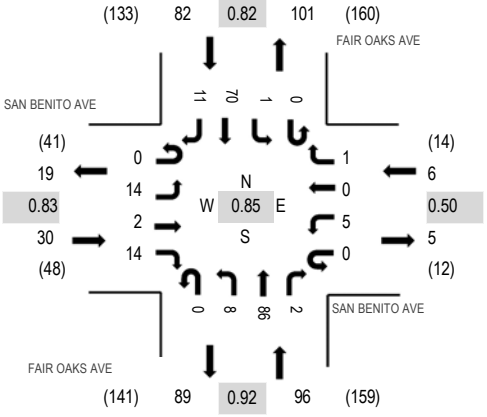
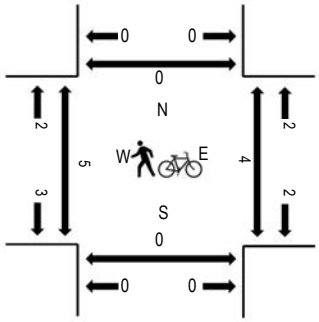
Location: 18 FAIR OAKS AVE & SAN BENITO AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	SAN BENITO AVE Eastbound				SAN BENITO AVE Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	0	1	1	0	3	1	0	0	4	6	1	2	1	11	2	33	140	3	1	0	1
2:15 PM	1	0	0	4	0	0	2	0	0	2	20	0	0	0	7	0	36	159	1	0	0	0
2:30 PM	0	3	1	0	0	0	0	0	0	3	9	1	0	0	11	1	29	179	3	0	0	0
2:45 PM	0	2	1	4	0	0	1	1	0	1	16	0	0	1	11	4	42	213	0	0	0	0
3:00 PM	0	4	0	5	0	0	0	0	0	1	21	1	0	0	16	4	52	214	3	1	0	0
3:15 PM	0	4	2	1	0	2	0	1	0	1	24	0	0	0	18	3	56		1	0	0	0
3:30 PM	0	6	0	4	0	2	0	0	0	5	20	1	0	1	23	1	63		0	1	0	0
3:45 PM	0	0	0	4	0	1	0	0	0	1	21	0	0	0	13	3	43		1	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	14	0	14	0	3	0	1	0	7	85	2	0	1	69	11	207
Mediums	0	0	2	0	0	2	0	0	0	1	1	0	0	0	1	0	7
Total	0	14	2	14	0	5	0	1	0	8	86	2	0	1	70	11	214

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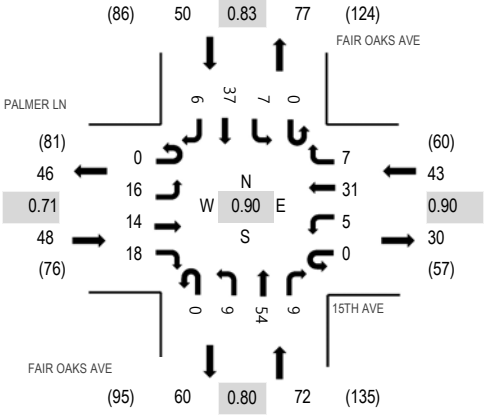
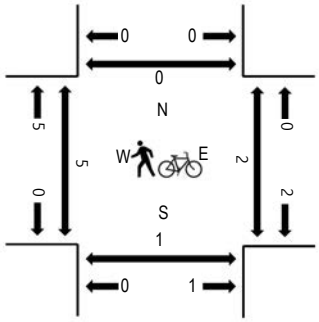
Location: 19 FAIR OAKS AVE & 15TH AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 02:45 PM - 03:45 PM
Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	PALMER LN Eastbound				15TH AVE Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	0	3	1	0	0	3	1	0	7	10	1	0	2	8	0	36	151	0	0	0	0
2:15 PM	0	1	8	3	0	1	1	0	0	4	9	1	0	1	6	3	38	173	0	1	0	0
2:30 PM	0	1	2	1	0	0	7	0	0	4	10	0	0	3	5	0	33	194	1	1	1	0
2:45 PM	0	4	2	3	0	3	8	1	0	4	10	1	0	0	6	2	44	213	0	0	0	0
3:00 PM	0	4	4	7	0	1	10	1	0	1	15	2	0	1	11	1	58	206	2	0	0	0
3:15 PM	0	6	5	6	0	1	9	2	0	1	11	4	0	2	11	1	59		0	0	0	0
3:30 PM	0	2	3	2	0	0	4	3	0	3	18	2	0	4	9	2	52		3	2	1	0
3:45 PM	0	1	3	4	0	1	2	1	0	4	13	0	0	3	5	0	37		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	16	14	18	0	5	31	7	0	9	50	9	0	7	37	6	209
Mediums	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4
Total	0	16	14	18	0	5	31	7	0	9	54	9	0	7	37	6	213

All Traffic Data Services Inc.

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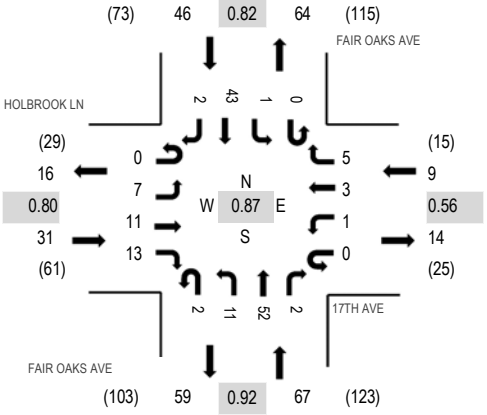
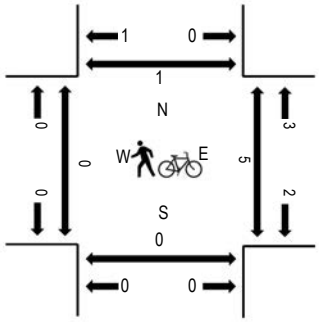
Location: 20 FAIR OAKS AVE & 17TH AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 02:45 PM - 03:45 PM
Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	HOLBROOK LN Eastbound				17TH AVE Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	1	1	2	0	1	0	1	0	6	10	0	0	0	10	0	32	121	0	0	0	0
2:15 PM	0	2	1	3	0	0	0	1	0	1	8	0	0	0	7	0	23	125	0	0	0	0
2:30 PM	0	0	3	6	0	0	2	1	0	1	17	1	0	0	3	0	34	146	0	0	0	0
2:45 PM	0	0	2	5	0	0	1	0	0	5	9	2	0	0	8	0	32	153	0	0	0	0
3:00 PM	0	2	2	2	0	0	1	1	0	1	15	0	0	0	11	1	36	151	0	3	0	1
3:15 PM	0	4	4	3	0	1	0	1	1	4	14	0	0	0	11	1	44		0	1	0	0
3:30 PM	0	1	3	3	0	0	1	3	1	1	14	0	0	1	13	0	41		0	1	0	0
3:45 PM	0	1	5	5	0	0	0	0	1	2	9	0	0	0	6	1	30		1	2	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	3
Lights	0	7	10	11	0	1	3	5	2	11	48	2	0	1	42	1	144
Mediums	0	0	1	2	0	0	0	0	0	0	2	0	0	0	1	0	6
Total	0	7	11	13	0	1	3	5	2	11	52	2	0	1	43	2	153

All Traffic Data Services Inc.

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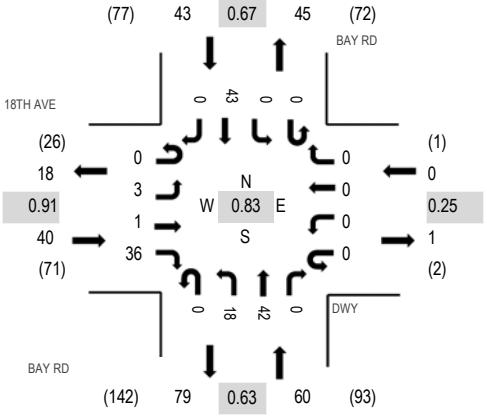
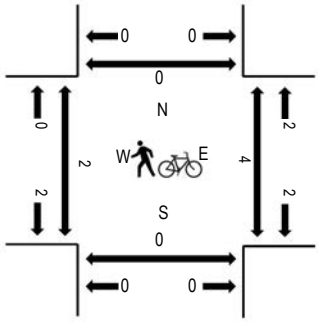
Location: 21 BAY RD & DWY PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	18TH AVE Eastbound				DWY Westbound				BAY RD Northbound				BAY RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	1	1	6	0	1	0	0	0	1	6	0	0	0	12	0	28	99	0	1	0	1
2:15 PM	0	0	0	5	0	0	0	0	0	2	9	0	0	0	6	0	22	97	0	1	0	0
2:30 PM	0	0	0	10	0	0	0	0	1	2	3	0	0	0	6	0	22	114	0	0	0	0
2:45 PM	0	1	0	7	0	0	0	0	0	2	7	0	0	0	9	1	27	135	0	0	0	2
3:00 PM	0	2	0	8	0	0	0	0	0	3	6	0	0	0	7	0	26	143	0	0	0	0
3:15 PM	0	0	0	11	0	0	0	0	0	5	19	0	0	0	4	0	39		2	1	0	0
3:30 PM	0	1	1	9	0	0	0	0	0	5	11	0	0	0	16	0	43		0	2	0	0
3:45 PM	0	0	0	8	0	0	0	0	0	5	6	0	0	0	16	0	35		0	1	0	0

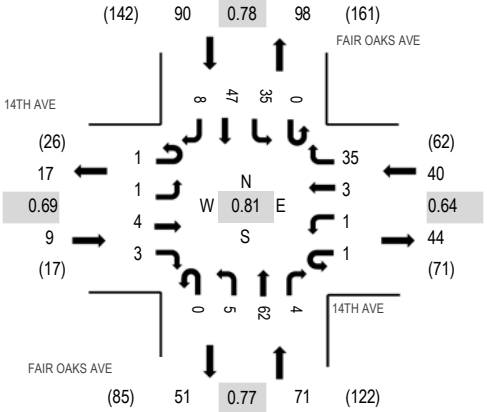
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	1	1	36	0	0	0	0	0	17	42	0	0	0	42	0	139
Mediums	0	2	0	0	0	0	0	0	0	1	0	0	0	0	1	0	4
Total	0	3	1	36	0	0	0	0	0	18	42	0	0	0	43	0	143

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

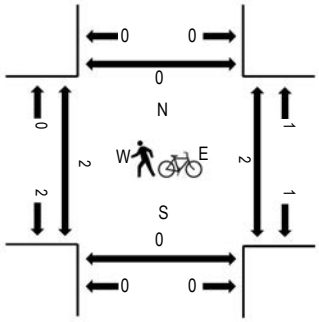
Location: 22 FAIR OAKS AVE & 14TH AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	14TH AVE Eastbound				14TH AVE Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	0	1	0	0	0	0	4	0	2	10	1	0	6	9	0	33	133	1	2	0	2
2:15 PM	0	0	0	0	0	0	0	9	0	0	9	1	0	3	6	1	29	153	2	0	0	2
2:30 PM	0	0	0	4	0	0	0	2	0	0	12	2	0	6	5	1	32	175	0	1	0	0
2:45 PM	0	1	1	1	0	0	1	6	0	3	10	1	0	5	9	1	39	208	0	0	0	0
3:00 PM	0	0	0	2	1	1	0	4	0	1	20	2	0	8	13	1	53	210	1	1	0	0
3:15 PM	0	0	2	0	0	0	1	15	0	0	12	0	0	6	13	2	51		0	0	0	0
3:30 PM	1	1	0	1	0	0	1	11	0	3	17	1	0	13	13	3	65		0	0	0	0
3:45 PM	0	0	2	0	0	0	1	5	0	1	13	1	0	8	8	2	41		1	1	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	1	1	3	2	1	1	3	35	0	5	59	4	0	35	47	7	204
Mediums	0	0	1	1	0	0	0	0	0	0	3	0	0	0	0	1	6
Total	1	1	4	3	1	1	3	35	0	5	62	4	0	35	47	8	210

AM Peak-Hour Volume Count Worksheet

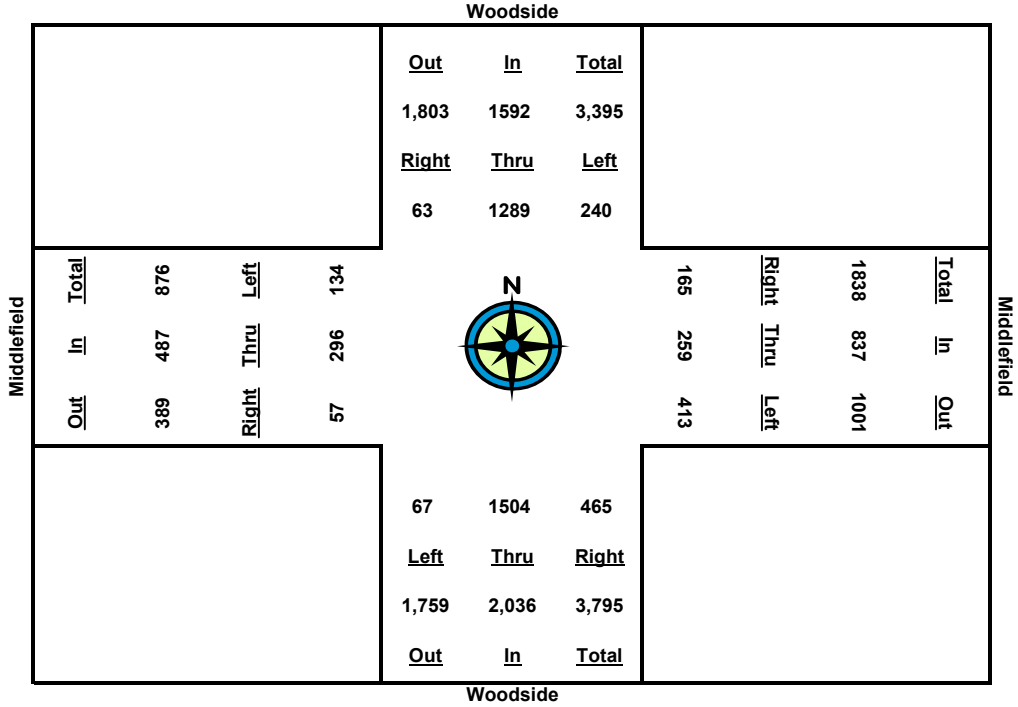
Date: 9/26/18
Counter: Patti and Kilbee/Jo
Intersection Name: Woodside and Middlefield
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	Woodside				Middlefield				Woodside				Middlefield			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	19	242	51	312	44	54	94	192	67	303	7	377	10	50	23	83
7:30	37	500	96	633	91	107	201	399	151	623	23	797	24	105	54	183
7:45	53	844	154	1,051	130	168	301	599	285	1,014	40	1,339	43	173	88	304
8:00	66	1,172	210	1,448	160	235	404	799	387	1,354	50	1,791	59	247	120	426
8:15	83	1,481	275	1,839	206	298	511	1,015	488	1,711	66	2,265	75	309	160	544
8:30	100	1,789	336	2,225	256	366	614	1,236	616	2,127	90	2,833	81	401	188	670
8:45	115	2,081	402	2,598	313	438	685	1,436	705	2,452	103	3,260	84	477	225	786
9:00	130	2,347	449	2,926	361	486	745	1,592	791	2,752	124	3,667	88	536	254	878

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
7:00 - 8:00	66	1,172	210	1,448	160	235	404	799	387	1,354	50	1,791	59	247	120	426	4,464
7:15 - 8:15	64	1,239	224	1,527	162	244	417	823	421	1,408	59	1,888	65	259	137	461	4,699
7:30 - 8:30	63	1,289	240	1,592	165	259	413	837	465	1,504	67	2,036	57	296	134	487	4,952
7:45 - 8:45	62	1,237	248	1,547	183	270	384	837	420	1,438	63	1,921	41	304	137	482	4,787
8:00 - 9:00	64	1,175	239	1,478	201	251	341	793	404	1,398	74	1,876	29	289	134	452	4,599
Peak Volumes:	**63**	**1,289**	**240**	**1,592**	**165**	**259**	**413**	**837**	**465**	**1,504**	**67**	**2,036**	**57**	**296**	**134**	**487**	**4,952**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	67	1,504	465	240	1,289	63	134	296	57	413	259	165



PM Peak-Hour Volume Count Worksheet

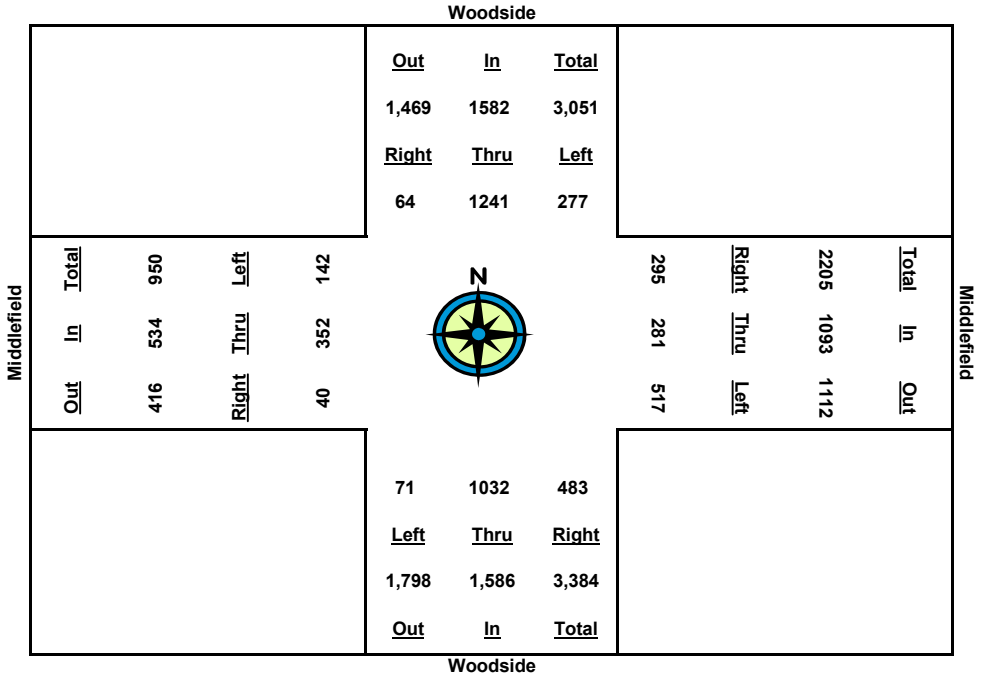
Date: 9/26/18
Counter: Patti and Kilbee/Jo
Intersection Name: Woodside and Middlefield
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	Woodside				Middlefield				Woodside				Middlefield			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15	11	231	65	307	85	62	101	248	84	268	18	370	16	96	36	148
2:30	25	530	153	708	160	119	188	467	190	494	46	730	29	164	68	261
2:45	39	789	231	1,059	260	207	308	775	301	735	73	1,109	39	242	101	382
3:00	58	1,100	317	1,475	343	262	424	1,029	429	969	89	1,487	50	330	141	521
3:15	77	1,462	380	1,919	416	338	578	1,332	545	1,237	106	1,888	62	428	176	666
3:30	91	1,681	453	2,225	482	408	688	1,578	664	1,502	128	2,294	70	499	211	780
3:45	103	2,030	508	2,641	555	488	825	1,868	784	1,767	144	2,695	79	594	243	916
4:00	113	2,285	563	2,961	620	566	941	2,127	931	2,033	178	3,142	89	680	270	1,039

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
2:00 - 3:00	58	1,100	317	1,475	343	262	424	1,029	429	969	89	1,487	50	330	141	521	4,512
2:15 - 3:15	66	1,231	315	1,612	331	276	477	1,084	461	969	88	1,518	46	332	140	518	4,732
2:30 - 3:30	66	1,151	300	1,517	322	289	500	1,111	474	1,008	82	1,564	41	335	143	519	4,711
2:45 - 3:45	64	1,241	277	1,582	295	281	517	1,093	483	1,032	71	1,586	40	352	142	534	4,795
3:00 - 4:00	55	1,185	246	1,486	277	304	517	1,098	502	1,064	89	1,655	39	350	129	518	4,757
Peak Volumes:	**64**	**1,241**	**277**	**1,582**	**295**	**281**	**517**	**1,093**	**483**	**1,032**	**71**	**1,586**	**40**	**352**	**142**	**534**	**4,795**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	71	1,032	483	277	1,241	64	142	352	40	517	281	295



Appendix C
Trip Generation Counts

AM Peak-Hour Volume Count Worksheet

Date: 9/5/2018
Counter: Patti, Kilbee Jo
Intersection Name: Synapse School
Weather: Overcast Menlo Park

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

Start Time	Driveway 1 & 2		Driveway 3		Driveway 4		Driveway 5 & 6		Driveway 7		On-Street		Hourly Totals
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	
7:00	0	0	0	0	0	0	0	0	0	0	0	0	
7:15	0	0	0	0	0	0	1	0	1	0	0	0	
7:30	0	0	2	0	0	0	1	0	2	0	1	0	
7:45	2	0	3	0	0	0	1	0	2	0	1	1	
8:00	0	0	5	0	1	1	2	0	5	0	1	1	
8:15	15	0	5	0	2	2	7	0	8	0	2	2	
8:30	41	15	5	0	2	2	20	5	11	2	2	2	
8:45	72	46	5	0	3	3	50	26	16	8	2	2	
9:00	82	65	5	0	4	4	62	41	16	8	2	2	
Peak Hour													
7:00 - 8:00	0	0	5	0	1	1	2	0	5	0	1	1	16
7:15 - 8:15	15	0	5	0	2	2	6	0	7	0	2	2	41
7:30 - 8:30	41	15	3	0	2	2	19	5	9	2	1	2	101
7:45 - 8:45	70	46	2	0	3	3	49	26	14	8	1	1	223
8:00 - 9:00	82	65	0	0	3	3	60	41	11	8	1	1	275
Peak Volumes:	**82**	**65**	**0**	**0**	**3**	**3**	**60**	**41**	**11**	**8**	**1**	**1**	**275**

Afternoon Peak-Hour Volume Count Worksheet

Date: 9/5/2018
Counter: Patti, Kilbee Jo
Intersection Name: Synapse School
Weather: Overcast Menlo Park

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	Driveway 1 & 2		Closed Driveway 3		Construction Driveway 4		Driveway 5 & 6		Driveway 7		On-Street		
Start Time	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	
2:00	0	0	0	0	0	0	0	0	0	0	0	0	
2:15	0	0	0	0	0	0	1	0	0	0	0	0	
2:30	0	0	0	0	0	0	1	1	0	0	0	0	
2:45	0	0	0	0	0	1	2	1	0	0	1	1	
3:00	2	0	0	0	0	2	5	1	0	0	1	1	
3:15	21	8	0	0	0	2	9	7	1	1	1	1	
3:30	41	38	0	0	0	2	24	8	1	6	2	1	
3:45	44	44	0	0	0	3	58	20	1	32	2	2	
4:00	46	45	0	2	0	3	59	21	1	33	3	2	
Peak Hour													Hourly Totals
2:00 - 3:00	2	0	0	0	0	2	5	1	0	0	1	1	12
2:15 - 3:15	21	8	0	0	0	2	8	7	1	1	1	1	50
2:30 - 3:30	41	38	0	0	0	2	23	7	1	6	2	1	121
2:45 - 3:45	44	44	0	0	0	2	56	19	1	32	1	1	200
3:00 - 4:00	44	45	0	2	0	1	54	20	1	33	2	1	203
Peak Volumes:	**44**	**45**	**0**	**2**	**0**	**1**	**54**	**20**	**1**	**33**	**2**	**1**	**203**

Appendix D
Intersection Level of Service Calculations

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	18	6	16	38	49	5	107	10	73	170	43
Future Vol, veh/h	31	18	6	16	38	49	5	107	10	73	170	43
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	18	6	16	38	49	5	107	10	73	170	43
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	8.5	8.4	8.5	9.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	56%	16%	26%
Vol Thru, %	88%	33%	37%	59%
Vol Right, %	8%	11%	48%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	122	55	103	286
LT Vol	5	31	16	73
Through Vol	107	18	38	170
RT Vol	10	6	49	43
Lane Flow Rate	122	55	103	286
Geometry Grp	1	1	1	1
Degree of Util (X)	0.156	0.077	0.134	0.351
Departure Headway (Hd)	4.591	5.042	4.679	4.417
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	780	708	764	815
Service Time	2.627	3.086	2.719	2.447
HCM Lane V/C Ratio	0.156	0.078	0.135	0.351
HCM Control Delay	8.5	8.5	8.4	9.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.2	0.5	1.6

Intersection	
Intersection Delay, s/veh	18.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	89	42	32	18	27	94	13	207	37	87	363	92
Future Vol, veh/h	89	42	32	18	27	94	13	207	37	87	363	92
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	89	42	32	18	27	94	13	207	37	87	363	92
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	12	11	12.5	24.9
HCM LOS	B	B	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	55%	13%	16%
Vol Thru, %	81%	26%	19%	67%
Vol Right, %	14%	20%	68%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	257	163	139	542
LT Vol	13	89	18	87
Through Vol	207	42	27	363
RT Vol	37	32	94	92
Lane Flow Rate	257	163	139	542
Geometry Grp	1	1	1	1
Degree of Util (X)	0.402	0.287	0.233	0.787
Departure Headway (Hd)	5.638	6.335	6.041	5.229
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	635	562	589	688
Service Time	3.714	4.424	4.133	3.289
HCM Lane V/C Ratio	0.405	0.29	0.236	0.788
HCM Control Delay	12.5	12	11	24.9
HCM Lane LOS	B	B	B	C
HCM 95th-tile Q	1.9	1.2	0.9	7.8

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	11	74	1	11	0	117	3	4	0	0	0
Future Vol, veh/h	2	11	74	1	11	0	117	3	4	0	0	0
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	11	74	1	11	0	117	3	4	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	11	0	0	86	0	0	66	66	49	69	103	11
Stage 1	-	-	-	-	-	-	53	53	-	13	13	-
Stage 2	-	-	-	-	-	-	13	13	-	56	90	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1608	-	-	1510	-	-	927	825	1020	923	787	1070
Stage 1	-	-	-	-	-	-	960	851	-	1007	885	-
Stage 2	-	-	-	-	-	-	1007	885	-	956	820	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1608	-	-	1509	-	-	925	823	1019	916	785	1070
Mov Cap-2 Maneuver	-	-	-	-	-	-	925	823	-	916	785	-
Stage 1	-	-	-	-	-	-	958	849	-	1006	884	-
Stage 2	-	-	-	-	-	-	1006	884	-	948	818	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.6	9.5	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	925	1608	-	-	1509	-	-	-
HCM Lane V/C Ratio	0.134	0.001	-	-	0.001	-	-	-
HCM Control Delay (s)	9.5	7.2	0	-	7.4	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	43	20	9	850	630	119
Future Vol, veh/h	43	20	9	850	630	119
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	20	9	850	630	119

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1501	633	752	0	-	0
Stage 1	633	-	-	-	-	-
Stage 2	868	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	134	480	858	-	-	-
Stage 1	529	-	-	-	-	-
Stage 2	411	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	131	479	856	-	-	-
Mov Cap-2 Maneuver	328	-	-	-	-	-
Stage 1	517	-	-	-	-	-
Stage 2	410	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.9	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	856	-	364	-	-
HCM Lane V/C Ratio	0.011	-	0.173	-	-
HCM Control Delay (s)	9.2	0	16.9	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	444	12	339	425	0	856
Future Volume (veh/h)	444	12	339	425	0	856
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	444	12	339	0	0	856
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	529	14	1471	0	0	1471
Arrive On Green	0.31	0.31	0.42	0.00	0.00	0.42
Sat Flow, veh/h	1718	46	3725	0	0	3725
Grp Volume(v), veh/h	457	0	339	0	0	856
Grp Sat Flow(s),veh/h/ln	1769	0	1770	0	0	1770
Q Serve(g_s), s	6.5	0.0	1.7	0.0	0.0	5.1
Cycle Q Clear(g_c), s	6.5	0.0	1.7	0.0	0.0	5.1
Prop In Lane	0.97	0.03		0.00	0.00	
Lane Grp Cap(c), veh/h	545	0	1471	0	0	1471
V/C Ratio(X)	0.84	0.00	0.23	0.00	0.00	0.58
Avail Cap(c_a), veh/h	978	0	2282	0	0	2282
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	8.8	0.0	5.1	0.0	0.0	6.1
Incr Delay (d2), s/veh	1.4	0.0	0.1	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.8	0.0	0.0	2.5
LnGrp Delay(d),s/veh	10.1	0.0	5.2	0.0	0.0	6.6
LnGrp LOS	B		A			A
Approach Vol, veh/h	457		339			856
Approach Delay, s/veh	10.1		5.2			6.6
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		15.8		11.4		15.8		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		17.5		15.0		17.5		
Max Q Clear Time (g_c+I1), s		3.7		8.5		7.1		
Green Ext Time (p_c), s		2.1		0.1		4.2		

Intersection Summary	
HCM 2010 Ctrl Delay	7.3
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	351	490	17	245	69	122	204	17	65	340	15
Future Volume (veh/h)	37	351	490	17	245	69	122	204	17	65	340	15
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.91	0.99		0.91	1.00		0.96	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	37	351	490	17	245	69	122	204	17	65	340	15
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	132	1157	905	75	927	251	156	261	348	79	411	406
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.23	0.23	0.23	0.26	0.26	0.26
Sat Flow, veh/h	227	3063	1440	85	2454	665	684	1144	1526	297	1551	1531
Grp Volume(v), veh/h	200	188	490	175	0	156	326	0	17	405	0	15
Grp Sat Flow(s),veh/h/ln	1680	1610	1440	1702	0	1503	1829	0	1526	1848	0	1531
Q Serve(g_s), s	0.0	7.6	18.8	0.0	0.0	6.7	15.5	0.0	0.8	19.1	0.0	0.7
Cycle Q Clear(g_c), s	6.9	7.6	18.8	6.0	0.0	6.7	15.5	0.0	0.8	19.1	0.0	0.7
Prop In Lane	0.19		1.00	0.10		0.44	0.37		1.00	0.16		1.00
Lane Grp Cap(c), veh/h	681	608	905	685	0	568	417	0	348	489	0	406
V/C Ratio(X)	0.29	0.31	0.54	0.26	0.00	0.27	0.78	0.00	0.05	0.83	0.00	0.04
Avail Cap(c_a), veh/h	681	608	905	685	0	568	750	0	626	897	0	743
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.1	20.3	10.9	19.8	0.0	20.0	33.6	0.0	27.9	32.1	0.0	25.3
Incr Delay (d2), s/veh	1.1	1.3	2.3	0.9	0.0	1.2	3.2	0.0	0.1	3.6	0.0	0.0
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	3.8	3.6	12.3	3.2	0.0	3.0	8.2	0.0	0.3	10.3	0.0	0.3
LnGrp Delay(d),s/veh	21.2	21.7	13.2	20.7	0.0	21.2	36.8	0.0	28.0	35.7	0.0	25.3
LnGrp LOS	C	C	B	C		C	D		C	D		C
Approach Vol, veh/h		878			331			343			420	
Approach Delay, s/veh		16.9			21.0			36.4			35.4	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		39.0		25.1		39.0		28.6
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		35.0		38.0		35.0		45.0
Max Q Clear Time (g_c+I1), s		20.8		17.5		8.7		21.1
Green Ext Time (p_c), s		3.9		2.1		2.2		2.8

Intersection Summary	
HCM 2010 Ctrl Delay	24.9
HCM 2010 LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	337	374	213	513	458	238
Future Volume (veh/h)	337	374	213	513	458	238
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	337	374	213	513	458	238
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	371	1216	767	1075	497	775
Arrive On Green	0.21	0.65	0.41	0.41	0.28	0.28
Sat Flow, veh/h	1774	1863	1863	1535	1774	1583
Grp Volume(v), veh/h	337	374	213	513	458	238
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1535	1774	1583
Q Serve(g_s), s	23.2	10.9	9.5	19.4	31.4	11.3
Cycle Q Clear(g_c), s	23.2	10.9	9.5	19.4	31.4	11.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	371	1216	767	1075	497	775
V/C Ratio(X)	0.91	0.31	0.28	0.48	0.92	0.31
Avail Cap(c_a), veh/h	637	1216	767	1075	847	1087
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	48.4	9.4	24.5	8.9	43.8	19.2
Incr Delay (d2), s/veh	10.1	0.7	0.9	1.5	8.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.5	5.8	5.1	16.1	16.5	12.5
LnGrp Delay(d),s/veh	58.4	10.1	25.4	10.5	51.7	19.4
LnGrp LOS	E	B	C	B	D	B
Approach Vol, veh/h		711	726		696	
Approach Delay, s/veh		33.0	14.8		40.7	
Approach LOS		C	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		86.0		39.3	30.2	55.8		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 82		* 60	45.0	* 33		
Max Q Clear Time (g_c+I1), s		12.9		33.4	25.2	21.4		
Green Ext Time (p_c), s		1.6		1.7	1.0	1.6		

Intersection Summary	
HCM 2010 Ctrl Delay	29.3
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	60	0	54	14	195	0	759	62	232	753	94
Future Volume (veh/h)	149	60	0	54	14	195	0	759	62	232	753	94
Number	7	4	14	3	8	18	1	6	16	5	2	12
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		0.98	1.00		0.98	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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	149	60	0	54	14	195	0	759	62	232	753	94
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	245	86	0	318	74	888	0	890	73	616	2115	264
Arrive On Green	0.22	0.22	0.00	0.22	0.22	0.22	0.00	0.27	0.27	0.35	0.67	0.67
Sat Flow, veh/h	771	396	0	1094	339	1555	0	3400	270	1774	3167	395
Grp Volume(v), veh/h	209	0	0	68	0	195	0	406	415	232	421	426
Grp Sat Flow(s),veh/h/ln	1168	0	0	1433	0	1555	0	1770	1807	1774	1770	1793
Q Serve(g_s), s	11.1	0.0	0.0	0.0	0.0	0.0	0.0	17.4	17.4	7.9	8.3	8.3
Cycle Q Clear(g_c), s	14.1	0.0	0.0	3.0	0.0	0.0	0.0	17.4	17.4	7.9	8.3	8.3
Prop In Lane	0.71		0.00	0.79		1.00	0.00		0.15	1.00		0.22
Lane Grp Cap(c), veh/h	331	0	0	392	0	888	0	476	486	616	1182	1197
V/C Ratio(X)	0.63	0.00	0.00	0.17	0.00	0.22	0.00	0.85	0.85	0.38	0.36	0.36
Avail Cap(c_a), veh/h	489	0	0	564	0	1077	0	535	547	616	1182	1197
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	0.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	30.7	0.0	0.0	25.6	0.0	8.7	0.0	27.7	27.7	19.6	5.8	5.8
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.2	0.0	0.1	0.0	17.3	17.1	0.1	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	4.5	0.0	0.0	1.2	0.0	2.1	0.0	10.7	11.0	3.9	4.2	4.3
LnGrp Delay(d),s/veh	32.2	0.0	0.0	25.8	0.0	8.7	0.0	45.0	44.8	19.7	6.5	6.5
LnGrp LOS	C			C		A		D	D	B	A	A
Approach Vol, veh/h		209			263			821			1079	
Approach Delay, s/veh		32.2			13.1			44.9			9.4	
Approach LOS		C			B			D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		58.0		22.0	32.4	25.6		22.0
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		43.7		27.1	15.9	* 24		27.1
Max Q Clear Time (g_c+I1), s		10.3		16.1	9.9	19.4		5.0
Green Ext Time (p_c), s		6.3		0.8	0.2	2.1		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	24.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	561	1670	595	170	519	773
Future Volume (veh/h)	561	1670	595	170	519	773
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	561	1670	595	170	519	773
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	676	2755	1140	317	621	1522
Arrive On Green	0.20	0.54	0.29	0.29	0.35	0.35
Sat Flow, veh/h	3442	5253	4083	1089	1774	2787
Grp Volume(v), veh/h	561	1670	513	252	519	773
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1615	1774	1393
Q Serve(g_s), s	11.6	16.5	9.3	9.7	19.8	12.9
Cycle Q Clear(g_c), s	11.6	16.5	9.3	9.7	19.8	12.9
Prop In Lane	1.00			0.67	1.00	1.00
Lane Grp Cap(c), veh/h	676	2755	987	470	621	1522
V/C Ratio(X)	0.83	0.61	0.52	0.54	0.84	0.51
Avail Cap(c_a), veh/h	839	2755	987	470	769	1755
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	28.5	11.5	21.9	22.0	22.1	10.5
Incr Delay (d2), s/veh	5.8	1.0	2.0	4.3	6.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	7.8	4.6	4.8	10.8	4.9
LnGrp Delay(d),s/veh	34.3	12.5	23.8	26.3	28.7	10.8
LnGrp LOS	C	B	C	C	C	B
Approach Vol, veh/h		2231	765		1292	
Approach Delay, s/veh		18.0	24.6		18.0	
Approach LOS		B	C		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	18.5	25.5				44.0		29.8
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	18.0	18.0				40.0		32.0
Max Q Clear Time (g_c+I1), s	13.6	11.7				18.5		21.8
Green Ext Time (p_c), s	0.9	2.6				12.7		4.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	464	47	169	32	17	21	112	803	96	19	937	426
Future Volume (veh/h)	464	47	169	32	17	21	112	803	96	19	937	426
Number	3	8	18	7	4	14	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		0.98	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	498	0	169	32	17	21	112	803	96	19	937	426
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	570	0	252	103	44	54	593	2342	1115	25	1196	774
Arrive On Green	0.16	0.00	0.16	0.06	0.06	0.06	0.67	1.00	1.00	0.01	0.34	0.34
Sat Flow, veh/h	3548	0	1572	1774	750	926	1774	3539	1545	1774	3539	1538
Grp Volume(v), veh/h	498	0	169	32	0	38	112	803	96	19	937	426
Grp Sat Flow(s),veh/h/ln	1774	0	1572	1774	0	1676	1774	1770	1545	1774	1770	1538
Q Serve(g_s), s	21.9	0.0	16.2	2.8	0.0	3.5	3.8	0.0	0.0	1.7	38.1	30.7
Cycle Q Clear(g_c), s	21.9	0.0	16.2	2.8	0.0	3.5	3.8	0.0	0.0	1.7	38.1	30.7
Prop In Lane	1.00		1.00	1.00		0.55	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	570	0	252	103	0	98	593	2342	1115	25	1196	774
V/C Ratio(X)	0.87	0.00	0.67	0.31	0.00	0.39	0.19	0.34	0.09	0.75	0.78	0.55
Avail Cap(c_a), veh/h	843	0	373	308	0	291	593	2342	1115	67	1336	835
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.6	0.0	63.2	72.3	0.0	72.6	18.3	0.0	0.0	78.6	47.7	27.8
Incr Delay (d2), s/veh	6.2	0.0	2.3	1.2	0.0	1.9	0.0	0.4	0.1	15.2	5.2	2.8
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	11.3	0.0	7.2	1.4	0.0	1.7	1.9	0.1	0.0	0.9	19.5	17.9
LnGrp Delay(d),s/veh	71.7	0.0	65.4	73.5	0.0	74.5	18.3	0.4	0.1	93.8	52.9	30.6
LnGrp LOS	E		E	E		E	B	A	A	F	D	C
Approach Vol, veh/h		667			70			1011			1382	
Approach Delay, s/veh		70.1			74.0			2.3			46.6	
Approach LOS		E			E			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.3	110.5		13.5	58.1	58.7		29.7
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.6	* 4.6		4.0
Max Green Setting (Gmax), s	6.0	71.4		* 28	17.0	* 60		38.0
Max Q Clear Time (g_c+I1), s	3.7	2.0		5.5	5.8	40.1		23.9
Green Ext Time (p_c), s	0.0	16.2		0.2	0.1	13.9		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	37.9
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	30.6
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	267	63	205	305	33	69	118	214	37	159	55
Future Vol, veh/h	34	267	63	205	305	33	69	118	214	37	159	55
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	267	63	205	305	33	69	118	214	37	159	55
Number of Lanes	1	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	3
HCM Control Delay	28.1	38.3	21.7	31.6
HCM LOS	D	E	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1
Vol Left, %	37%	0%	100%	0%	0%	100%	0%	15%
Vol Thru, %	63%	0%	0%	100%	0%	0%	90%	63%
Vol Right, %	0%	100%	0%	0%	100%	0%	10%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	187	214	34	267	63	205	338	251
LT Vol	69	0	34	0	0	205	0	37
Through Vol	118	0	0	267	0	0	305	159
RT Vol	0	214	0	0	63	0	33	55
Lane Flow Rate	187	214	34	267	63	205	338	251
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.509	0.528	0.096	0.716	0.156	0.553	0.856	0.686
Departure Headway (Hd)	9.802	8.884	10.17	9.649	8.919	9.713	9.117	9.839
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	368	407	353	376	403	373	399	366
Service Time	7.541	6.622	7.906	7.384	6.654	7.448	6.852	7.595
HCM Lane V/C Ratio	0.508	0.526	0.096	0.71	0.156	0.55	0.847	0.686
HCM Control Delay	22.3	21.2	14	33.4	13.3	23.9	47.1	31.6
HCM Lane LOS	C	C	B	D	B	C	E	D
HCM 95th-tile Q	2.8	3	0.3	5.4	0.5	3.2	8.2	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	139	23	229	163	174	57	1474	102	167	1298	49
Future Volume (veh/h)	4	139	23	229	163	174	57	1474	102	167	1298	49
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	3	180	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	4	139	0	229	163	174	57	1474	102	167	1298	0
Adj No. of Lanes	0	2	0	0	2	0	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	30	854	0	292	215	243	82	2509	88	293	2142	958
Arrive On Green	0.27	0.27	0.00	0.27	0.27	0.27	0.04	0.52	0.52	0.15	0.62	0.00
Sat Flow, veh/h	34	3294	0	956	801	908	1774	4853	336	1774	3539	1583
Grp Volume(v), veh/h	74	69	0	276	0	290	57	1030	546	167	1298	0
Grp Sat Flow(s),veh/h/ln	1634	1610	0	1154	0	1510	1774	1695	1799	1774	1770	1583
Q Serve(g_s), s	0.2	5.9	0.0	36.2	0.0	30.9	5.7	37.6	37.6	15.8	38.9	0.0
Cycle Q Clear(g_c), s	31.1	5.9	0.0	42.1	0.0	30.9	5.7	37.6	37.6	15.8	38.9	0.0
Prop In Lane	0.05		0.00	0.83		0.60	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	452	432	0	345	0	405	82	1678	910	293	2142	958
V/C Ratio(X)	0.16	0.16	0.00	0.80	0.00	0.72	0.69	0.61	0.60	0.57	0.61	0.00
Avail Cap(c_a), veh/h	652	605	0	488	0	568	149	1750	929	338	2205	986
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	51.3	51.4	0.0	68.0	0.0	60.8	85.0	43.9	42.3	70.6	22.7	0.0
Incr Delay (d2), s/veh	0.2	0.2	0.0	6.3	0.0	2.5	10.0	1.7	2.9	1.8	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	31.4	95.2	78.3	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	2.7	0.0	14.2	0.0	13.6	4.4	59.7	58.2	8.0	20.8	0.0
LnGrp Delay(d),s/veh	51.5	51.6	0.0	74.3	0.0	63.4	126.4	140.8	123.5	72.4	24.0	0.0
LnGrp LOS	D	D		E		E	F	F	F	E	C	
Approach Vol, veh/h		143			566			1633			1465	
Approach Delay, s/veh		51.5			68.7			134.5			29.5	
Approach LOS		D			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	30.3	96.0		51.9	11.3	115.0		51.9
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	34.0	92.0		67.0	15.0	111.0		67.0
Max Q Clear Time (g_c+I1), s	17.8	39.6		33.1	7.7	40.9		44.1
Green Ext Time (p_c), s	0.4	17.4		0.8	0.0	14.9		3.8

Intersection Summary	
HCM 2010 Ctrl Delay	81.2
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	296	57	413	259	165	67	1504	465	240	1289	63
Future Volume (veh/h)	134	296	57	413	259	165	67	1504	465	240	1289	63
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		0.95	1.00		0.96	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	134	296	57	413	259	165	67	1504	465	240	1289	63
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	156	351	67	470	313	387	85	1982	1092	286	2108	1083
Arrive On Green	0.09	0.12	0.12	0.14	0.17	0.17	0.05	0.56	0.56	0.08	0.60	0.60
Sat Flow, veh/h	1774	2945	557	3442	1863	1522	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	134	176	177	413	259	165	67	1504	465	240	1289	63
Grp Sat Flow(s),veh/h/ln	1774	1770	1733	1721	1863	1522	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	11.8	15.4	15.9	18.7	21.4	14.5	5.9	51.6	20.4	10.9	36.8	2.1
Cycle Q Clear(g_c), s	11.8	15.4	15.9	18.7	21.4	14.5	5.9	51.6	20.4	10.9	36.8	2.1
Prop In Lane	1.00		0.32	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	156	211	207	470	313	387	85	1982	1092	286	2108	1083
V/C Ratio(X)	0.86	0.83	0.86	0.88	0.83	0.43	0.79	0.76	0.43	0.84	0.61	0.06
Avail Cap(c_a), veh/h	223	267	262	628	387	448	145	1982	1092	368	2108	1083
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	71.5	68.4	68.6	67.3	63.9	50.0	74.9	26.7	10.4	71.8	20.4	8.3
Incr Delay (d2), s/veh	19.8	16.2	19.7	10.7	11.6	0.7	15.1	2.8	1.2	12.6	1.3	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	6.7	8.5	8.8	9.6	12.0	6.2	3.3	25.8	9.0	5.7	18.3	0.9
LnGrp Delay(d),s/veh	91.2	84.6	88.3	78.0	75.5	50.7	90.0	29.5	11.6	84.4	21.8	8.4
LnGrp LOS	F	F	F	E	E	D	F	C	B	F	C	A
Approach Vol, veh/h		487			837			2036			1592	
Approach Delay, s/veh		87.8			71.9			27.4			30.7	
Approach LOS		F			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	17.2	93.0	25.7	23.0	11.6	98.6	18.0	30.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	89.0	29.0	24.0	13.0	93.0	20.0	33.0
Max Q Clear Time (g_c+I1), s	12.9	53.6	20.7	17.9	7.9	38.8	13.8	23.4
Green Ext Time (p_c), s	0.3	19.1	1.0	1.0	0.0	14.6	0.2	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	41.9
HCM 2010 LOS	D

Notes
User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	736	586	1727	0	0	970
Future Volume (veh/h)	736	586	1727	0	0	970
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	736	586	1727	0	0	970
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	915	741	2232	0	0	2232
Arrive On Green	0.27	0.27	0.63	0.00	0.00	0.63
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	736	586	1727	0	0	970
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	16.0	15.6	28.2	0.0	0.0	11.2
Cycle Q Clear(g_c), s	16.0	15.6	28.2	0.0	0.0	11.2
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	915	741	2232	0	0	2232
V/C Ratio(X)	0.80	0.79	0.77	0.00	0.00	0.43
Avail Cap(c_a), veh/h	1076	871	2232	0	0	2232
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.57	0.00	0.00	1.00
Uniform Delay (d), s/veh	27.4	27.3	10.7	0.0	0.0	7.5
Incr Delay (d2), s/veh	3.9	4.3	1.5	0.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	6.5	13.9	0.0	0.0	5.6
LnGrp Delay(d),s/veh	31.4	31.6	12.2	0.0	0.0	8.1
LnGrp LOS	C	C	B			A
Approach Vol, veh/h	1322		1727			970
Approach Delay, s/veh	31.5		12.2			8.1
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		54.5				54.5		25.5
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		46.7				46.7		25.0
Max Q Clear Time (g_c+I1), s		30.2				13.2		18.0
Green Ext Time (p_c), s		11.7				8.4		3.3

Intersection Summary	
HCM 2010 Ctrl Delay	17.6
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1249	450	0	965	1504	0
Future Volume (veh/h)	1249	450	0	965	1504	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1249	450	0	965	1504	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1346	619	0	1792	1792	0
Arrive On Green	0.39	0.39	0.00	0.51	1.00	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1249	450	0	965	1504	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	27.7	19.3	0.0	14.8	0.0	0.0
Cycle Q Clear(g_c), s	27.7	19.3	0.0	14.8	0.0	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1346	619	0	1792	1792	0
V/C Ratio(X)	0.93	0.73	0.00	0.54	0.84	0.00
Avail Cap(c_a), veh/h	1415	651	0	1792	1792	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.79	0.00
Uniform Delay (d), s/veh	23.3	20.7	0.0	13.4	0.0	0.0
Incr Delay (d2), s/veh	10.2	3.2	0.0	1.2	3.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.1	8.9	0.0	7.4	1.0	0.0
LnGrp Delay(d),s/veh	33.5	24.0	0.0	14.6	3.9	0.0
LnGrp LOS	C	C		B	A	
Approach Vol, veh/h	1699			965	1504	
Approach Delay, s/veh	31.0			14.6	3.9	
Approach LOS	C			B	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		44.6		35.4		44.6		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		38.9		32.9		38.9		
Max Q Clear Time (g_c+I1), s		16.8		29.7		2.0		
Green Ext Time (p_c), s		4.9		1.6		10.4		

Intersection Summary	
HCM 2010 Ctrl Delay	17.4
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	12.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	282	40	74	343	29	52	89	63	21	101	58
Future Vol, veh/h	27	282	40	74	343	29	52	89	63	21	101	58
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	282	40	74	343	29	52	89	63	21	101	58
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	12.1	13.4	12.8	12.3
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	25%	16%	0%	30%	0%	12%
Vol Thru, %	44%	84%	78%	70%	86%	56%
Vol Right, %	31%	0%	22%	0%	14%	32%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	204	168	181	246	201	180
LT Vol	52	27	0	74	0	21
Through Vol	89	141	141	172	172	101
RT Vol	63	0	40	0	29	58
Lane Flow Rate	204	168	181	246	200	180
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.354	0.305	0.317	0.441	0.346	0.314
Departure Headway (Hd)	6.249	6.538	6.299	6.467	6.21	6.277
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	571	546	567	552	575	567
Service Time	4.339	4.324	4.084	4.247	3.99	4.37
HCM Lane V/C Ratio	0.357	0.308	0.319	0.446	0.348	0.317
HCM Control Delay	12.8	12.2	12	14.3	12.3	12.3
HCM Lane LOS	B	B	B	B	B	B
HCM 95th-tile Q	1.6	1.3	1.4	2.2	1.5	1.3

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	53	771	7	8	356	38	9	6	35	93	2	79
Future Vol, veh/h	53	771	7	8	356	38	9	6	35	93	2	79
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	771	7	8	356	38	9	6	35	93	2	79

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	425	0	0	794	0	0	1092	1338	430	942	1322	228
Stage 1	-	-	-	-	-	-	897	897	-	422	422	-
Stage 2	-	-	-	-	-	-	195	441	-	520	900	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1131	-	-	823	-	-	169	152	573	218	155	775
Stage 1	-	-	-	-	-	-	301	357	-	580	587	-
Stage 2	-	-	-	-	-	-	788	575	-	507	355	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1102	-	-	812	-	-	137	132	554	174	135	755
Mov Cap-2 Maneuver	-	-	-	-	-	-	137	132	-	174	135	-
Stage 1	-	-	-	-	-	-	272	322	-	517	564	-
Stage 2	-	-	-	-	-	-	694	553	-	418	321	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.3	20.2	40.9
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	287	1102	-	-	812	-	-	266
HCM Lane V/C Ratio	0.174	0.048	-	-	0.01	-	-	0.654
HCM Control Delay (s)	20.2	8.4	0.3	-	9.5	0.1	-	40.9
HCM Lane LOS	C	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	0.6	0.2	-	-	0	-	-	4.2

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	77	25	63	125	1	11	1	69	4	5	0
Future Vol, veh/h	0	77	25	63	125	1	11	1	69	4	5	0
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	77	25	63	125	1	11	1	69	4	5	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	130	0	0	103	0	0	346	347	92	382	359	131
Stage 1	-	-	-	-	-	-	91	91	-	256	256	-
Stage 2	-	-	-	-	-	-	255	256	-	126	103	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1455	-	-	1489	-	-	608	576	965	576	568	919
Stage 1	-	-	-	-	-	-	916	820	-	749	696	-
Stage 2	-	-	-	-	-	-	749	696	-	878	810	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1450	-	-	1488	-	-	582	547	963	513	540	915
Mov Cap-2 Maneuver	-	-	-	-	-	-	582	547	-	513	540	-
Stage 1	-	-	-	-	-	-	915	819	-	747	662	-
Stage 2	-	-	-	-	-	-	709	662	-	813	809	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.5	9.5	11.9
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	877	1450	-	-	1488	-	-	528
HCM Lane V/C Ratio	0.092	-	-	-	0.042	-	-	0.017
HCM Control Delay (s)	9.5	0	-	-	7.5	0	-	11.9
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	64	17	77	90	2	4	10	15	5	47	25
Future Vol, veh/h	6	64	17	77	90	2	4	10	15	5	47	25
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	64	17	77	90	2	4	10	15	5	47	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	94	0	0	83	0	0	369	335	76	345	342	94
Stage 1	-	-	-	-	-	-	87	87	-	247	247	-
Stage 2	-	-	-	-	-	-	282	248	-	98	95	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1500	-	-	1514	-	-	588	585	985	609	580	963
Stage 1	-	-	-	-	-	-	921	823	-	757	702	-
Stage 2	-	-	-	-	-	-	725	701	-	908	816	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1498	-	-	1511	-	-	510	549	983	564	544	961
Mov Cap-2 Maneuver	-	-	-	-	-	-	510	549	-	564	544	-
Stage 1	-	-	-	-	-	-	915	818	-	752	663	-
Stage 2	-	-	-	-	-	-	620	662	-	879	811	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	3.4	10.3	11.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	702	1498	-	-	1511	-	-	635
HCM Lane V/C Ratio	0.041	0.004	-	-	0.051	-	-	0.121
HCM Control Delay (s)	10.3	7.4	0	-	7.5	0	-	11.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.2	-	-	0.4

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	71	9	56	157	1	9	3	16	3	6	7
Future Vol, veh/h	9	71	9	56	157	1	9	3	16	3	6	7
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	71	9	56	157	1	9	3	16	3	6	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	159	0	0	80	0	0	371	365	78	376	369	160
Stage 1	-	-	-	-	-	-	94	94	-	271	271	-
Stage 2	-	-	-	-	-	-	277	271	-	105	98	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1420	-	-	1518	-	-	586	563	983	581	560	885
Stage 1	-	-	-	-	-	-	913	817	-	735	685	-
Stage 2	-	-	-	-	-	-	729	685	-	901	814	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1419	-	-	1518	-	-	556	536	981	547	533	884
Mov Cap-2 Maneuver	-	-	-	-	-	-	556	536	-	547	533	-
Stage 1	-	-	-	-	-	-	907	811	-	729	657	-
Stage 2	-	-	-	-	-	-	687	657	-	875	808	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	2	10.1	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	735	1419	-	-	1518	-	-	649
HCM Lane V/C Ratio	0.038	0.006	-	-	0.037	-	-	0.025
HCM Control Delay (s)	10.1	7.6	0	-	7.5	0	-	10.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	101	2	33	71	2	98
Future Vol, veh/h	101	2	33	71	2	98
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	101	2	33	71	2	98

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	106	0	243	105
Stage 1	-	-	-	-	105	-
Stage 2	-	-	-	-	138	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1485	-	773	949
Stage 1	-	-	-	-	919	-
Stage 2	-	-	-	-	908	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1481	-	752	947
Mov Cap-2 Maneuver	-	-	-	-	752	-
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	887	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	942	-	-	1481	-
HCM Lane V/C Ratio	0.106	-	-	0.022	-
HCM Control Delay (s)	9.3	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	80	72	1	2	120	3	3	5	5	5	5	67
Future Vol, veh/h	80	72	1	2	120	3	3	5	5	5	5	67
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	80	72	1	2	120	3	3	5	5	5	5	67

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	125	0	0	74	0	0	397	363	74	366	362	125
Stage 1	-	-	-	-	-	-	234	234	-	128	128	-
Stage 2	-	-	-	-	-	-	163	129	-	238	234	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1462	-	-	1526	-	-	563	565	988	590	565	926
Stage 1	-	-	-	-	-	-	769	711	-	876	790	-
Stage 2	-	-	-	-	-	-	839	789	-	765	711	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1460	-	-	1525	-	-	495	531	987	556	531	924
Mov Cap-2 Maneuver	-	-	-	-	-	-	495	531	-	556	531	-
Stage 1	-	-	-	-	-	-	724	670	-	824	788	-
Stage 2	-	-	-	-	-	-	772	787	-	712	670	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4	0.1	10.8	9.7
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	633	1460	-	-	1525	-	-	847
HCM Lane V/C Ratio	0.021	0.055	-	-	0.001	-	-	0.091
HCM Control Delay (s)	10.8	7.6	0	-	7.4	0	-	9.7
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.3

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	28	6	10	35	47	4	107	24	51	125	29
Future Vol, veh/h	28	28	6	10	35	47	4	107	24	51	125	29
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	28	6	10	35	47	4	107	24	51	125	29
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	8.3	8.1	8.3	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	45%	11%	25%
Vol Thru, %	79%	45%	38%	61%
Vol Right, %	18%	10%	51%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	135	62	92	205
LT Vol	4	28	10	51
Through Vol	107	28	35	125
RT Vol	24	6	47	29
Lane Flow Rate	135	62	92	205
Geometry Grp	1	1	1	1
Degree of Util (X)	0.166	0.083	0.115	0.251
Departure Headway (Hd)	4.422	4.844	4.494	4.411
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	811	739	798	816
Service Time	2.447	2.877	2.523	2.434
HCM Lane V/C Ratio	0.166	0.084	0.115	0.251
HCM Control Delay	8.3	8.3	8.1	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.3	0.4	1

Intersection	
Intersection Delay, s/veh	18.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	88	23	42	71	43	160	26	230	41	48	354	58
Future Vol, veh/h	88	23	42	71	43	160	26	230	41	48	354	58
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	88	23	42	71	43	160	26	230	41	48	354	58
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	12.8	15.1	15.7	25
HCM LOS	B	C	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	58%	26%	10%
Vol Thru, %	77%	15%	16%	77%
Vol Right, %	14%	27%	58%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	297	153	274	460
LT Vol	26	88	71	48
Through Vol	230	23	43	354
RT Vol	41	42	160	58
Lane Flow Rate	297	153	274	460
Geometry Grp	1	1	1	1
Degree of Util (X)	0.512	0.292	0.479	0.755
Departure Headway (Hd)	6.208	6.871	6.298	5.911
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	579	520	570	612
Service Time	4.267	4.941	4.358	3.961
HCM Lane V/C Ratio	0.513	0.294	0.481	0.752
HCM Control Delay	15.7	12.8	15.1	25
HCM Lane LOS	C	B	C	C
HCM 95th-tile Q	2.9	1.2	2.6	6.8

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	15	64	4	17	1	78	1	2	1	3	1
Future Vol, veh/h	1	15	64	4	17	1	78	1	2	1	3	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	15	64	4	17	1	78	1	2	1	3	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	18	0	0	80	0	0	78	76	48	77	108	18
Stage 1	-	-	-	-	-	-	50	50	-	26	26	-
Stage 2	-	-	-	-	-	-	28	26	-	51	82	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1599	-	-	1518	-	-	911	814	1021	912	782	1061
Stage 1	-	-	-	-	-	-	963	853	-	992	874	-
Stage 2	-	-	-	-	-	-	989	874	-	962	827	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1599	-	-	1517	-	-	904	810	1020	907	778	1061
Mov Cap-2 Maneuver	-	-	-	-	-	-	904	810	-	907	778	-
Stage 1	-	-	-	-	-	-	961	851	-	991	871	-
Stage 2	-	-	-	-	-	-	982	871	-	958	825	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.3	9.4	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	905	1599	-	-	1517	-	-	847
HCM Lane V/C Ratio	0.09	0.001	-	-	0.003	-	-	0.006
HCM Control Delay (s)	9.4	7.3	0	-	7.4	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	20	21	973	676	50
Future Vol, veh/h	40	20	21	973	676	50
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	20	21	973	676	50

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1694	679	729	0	-	0
Stage 1	679	-	-	-	-	-
Stage 2	1015	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	102	452	875	-	-	-
Stage 1	504	-	-	-	-	-
Stage 2	350	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	96	451	873	-	-	-
Mov Cap-2 Maneuver	281	-	-	-	-	-
Stage 1	477	-	-	-	-	-
Stage 2	349	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.8	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	873	-	321	-	-
HCM Lane V/C Ratio	0.024	-	0.187	-	-
HCM Control Delay (s)	9.2	0	18.8	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	285	22	372	512	0	594
Future Volume (veh/h)	285	22	372	512	0	594
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	285	22	372	0	0	594
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	358	28	1409	0	0	1409
Arrive On Green	0.22	0.22	0.40	0.00	0.00	0.40
Sat Flow, veh/h	1628	126	3725	0	0	3725
Grp Volume(v), veh/h	308	0	372	0	0	594
Grp Sat Flow(s),veh/h/ln	1759	0	1770	0	0	1770
Q Serve(g_s), s	3.3	0.0	1.4	0.0	0.0	2.4
Cycle Q Clear(g_c), s	3.3	0.0	1.4	0.0	0.0	2.4
Prop In Lane	0.93	0.07		0.00	0.00	
Lane Grp Cap(c), veh/h	387	0	1409	0	0	1409
V/C Ratio(X)	0.80	0.00	0.26	0.00	0.00	0.42
Avail Cap(c_a), veh/h	1165	0	3516	0	0	3516
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	7.2	0.0	4.0	0.0	0.0	4.3
Incr Delay (d2), s/veh	1.4	0.0	0.1	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.7	0.0	0.0	1.2
LnGrp Delay(d),s/veh	8.7	0.0	4.1	0.0	0.0	4.5
LnGrp LOS	A		A			A
Approach Vol, veh/h	308		372			594
Approach Delay, s/veh	8.7		4.1			4.5
Approach LOS	A		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		12.3		7.3		12.3		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		19.5		13.0		19.5		
Max Q Clear Time (g_c+I1), s		3.4		5.3		4.4		
Green Ext Time (p_c), s		2.5		0.1		3.5		

Intersection Summary	
HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	314	278	14	410	84	175	167	13	68	317	76
Future Volume (veh/h)	47	314	278	14	410	84	175	167	13	68	317	76
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.91	0.99		0.91	1.00		0.96	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	47	314	278	14	410	84	175	167	13	68	317	76
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	160	984	923	54	1056	210	219	209	360	83	388	391
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.24	0.24	0.24	0.26	0.26	0.26
Sat Flow, veh/h	289	2578	1441	36	2766	551	929	887	1527	326	1520	1530
Grp Volume(v), veh/h	163	198	278	273	0	235	342	0	13	385	0	76
Grp Sat Flow(s),veh/h/ln	1257	1610	1441	1816	0	1537	1816	0	1527	1846	0	1530
Q Serve(g_s), s	1.6	8.2	8.6	0.0	0.0	10.5	16.7	0.0	0.6	18.5	0.0	3.7
Cycle Q Clear(g_c), s	12.1	8.2	8.6	10.0	0.0	10.5	16.7	0.0	0.6	18.5	0.0	3.7
Prop In Lane	0.29		1.00	0.05		0.36	0.51		1.00	0.18		1.00
Lane Grp Cap(c), veh/h	529	615	923	733	0	587	428	0	360	472	0	391
V/C Ratio(X)	0.31	0.32	0.30	0.37	0.00	0.40	0.80	0.00	0.04	0.82	0.00	0.19
Avail Cap(c_a), veh/h	529	615	923	733	0	587	751	0	632	842	0	698
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.4	20.5	8.6	21.1	0.0	21.3	33.9	0.0	27.8	33.0	0.0	27.5
Incr Delay (d2), s/veh	1.5	1.4	0.8	1.5	0.0	2.0	3.5	0.0	0.0	3.5	0.0	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	3.4	3.9	5.7	5.5	0.0	4.8	8.8	0.0	0.3	9.9	0.0	1.6
LnGrp Delay(d),s/veh	21.9	21.9	9.4	22.6	0.0	23.3	37.4	0.0	27.8	36.5	0.0	27.7
LnGrp LOS	C	C	A	C		C	D		C	D		C
Approach Vol, veh/h		639			508			355			461	
Approach Delay, s/veh		16.5			22.9			37.1			35.1	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		40.0		26.2		40.0		28.1
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		36.0		39.0		36.0		43.0
Max Q Clear Time (g_c+I1), s		14.1		18.7		12.5		20.5
Green Ext Time (p_c), s		3.4		2.2		3.3		2.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.2
HCM 2010 LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	382	303	385	607	389	299
Future Volume (veh/h)	382	303	385	607	389	299
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	382	303	385	607	389	299
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	409	1292	804	1044	427	746
Arrive On Green	0.23	0.69	0.43	0.43	0.24	0.24
Sat Flow, veh/h	1774	1863	1863	1535	1774	1583
Grp Volume(v), veh/h	382	303	385	607	389	299
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1535	1774	1583
Q Serve(g_s), s	27.0	7.6	19.0	27.4	27.3	15.8
Cycle Q Clear(g_c), s	27.0	7.6	19.0	27.4	27.3	15.8
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	409	1292	804	1044	427	746
V/C Ratio(X)	0.93	0.23	0.48	0.58	0.91	0.40
Avail Cap(c_a), veh/h	582	1292	804	1044	593	895
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	48.3	7.2	26.1	11.4	47.3	22.1
Incr Delay (d2), s/veh	15.1	0.4	2.0	2.4	13.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.0	4.0	10.2	20.8	15.0	16.3
LnGrp Delay(d),s/veh	63.4	7.6	28.1	13.7	60.9	22.3
LnGrp LOS	E	A	C	B	E	C
Approach Vol, veh/h		685	992		688	
Approach Delay, s/veh		38.7	19.3		44.1	
Approach LOS		D	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		93.0		35.0	33.5	59.5		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 89		* 43	42.0	* 43		
Max Q Clear Time (g_c+I1), s		9.6		29.3	29.0	29.4		
Green Ext Time (p_c), s		1.2		1.5	0.5	2.6		

Intersection Summary	
HCM 2010 Ctrl Delay	32.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	14	3	42	19	199	2	906	61	132	684	45
Future Volume (veh/h)	56	14	3	42	19	199	2	906	61	132	684	45
Number	7	4	14	3	8	18	1	6	16	5	2	12
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		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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	56	14	3	42	19	199	2	906	61	132	684	45
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	116	25	4	152	61	917	26	1064	72	839	2784	183
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.32	0.32	0.32	0.47	0.83	0.83
Sat Flow, veh/h	653	234	38	997	562	1546	1	3288	221	1774	3371	222
Grp Volume(v), veh/h	73	0	0	61	0	199	514	0	455	132	359	370
Grp Sat Flow(s),veh/h/ln	925	0	0	1559	0	1546	1861	0	1650	1774	1770	1823
Q Serve(g_s), s	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.1	5.9	6.2	6.2
Cycle Q Clear(g_c), s	12.0	0.0	0.0	4.9	0.0	0.0	36.1	0.0	36.1	5.9	6.2	6.2
Prop In Lane	0.77		0.04	0.69		1.00	0.00		0.13	1.00		0.12
Lane Grp Cap(c), veh/h	146	0	0	213	0	917	628	0	534	839	1461	1506
V/C Ratio(X)	0.50	0.00	0.00	0.29	0.00	0.22	0.82	0.00	0.85	0.16	0.25	0.25
Avail Cap(c_a), veh/h	283	0	0	376	0	1085	993	0	859	839	1461	1506
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	0.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	62.5	0.0	0.0	57.8	0.0	14.0	44.2	0.0	44.2	21.0	2.7	2.7
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.5	0.0	0.1	11.3	0.0	15.8	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.0	2.2	0.0	3.7	20.5	0.0	18.8	2.9	3.1	3.2
LnGrp Delay(d),s/veh	64.4	0.0	0.0	58.3	0.0	14.1	55.6	0.0	60.0	21.0	3.0	3.0
LnGrp LOS	E			E		B	E		E	C	A	A
Approach Vol, veh/h		73			260			969			861	
Approach Delay, s/veh		64.4			24.5			57.7			5.8	
Approach LOS		E			C			E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		120.2		19.8	70.8	49.4		19.8
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		100.4		30.4	23.9	* 73		30.4
Max Q Clear Time (g_c+I1), s		8.2		14.0	7.9	38.1		6.9
Green Ext Time (p_c), s		5.4		0.3	0.1	7.2		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	33.2
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	563	774	1360	317	258	557
Future Volume (veh/h)	563	774	1360	317	258	557
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	563	774	1360	317	258	557
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	681	3468	1738	404	354	1108
Arrive On Green	0.20	0.68	0.42	0.42	0.20	0.20
Sat Flow, veh/h	3442	5253	4260	952	1774	2787
Grp Volume(v), veh/h	563	774	1126	551	258	557
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1654	1774	1393
Q Serve(g_s), s	10.6	3.9	19.3	19.4	9.2	10.2
Cycle Q Clear(g_c), s	10.6	3.9	19.3	19.4	9.2	10.2
Prop In Lane	1.00			0.58	1.00	1.00
Lane Grp Cap(c), veh/h	681	3468	1440	702	354	1108
V/C Ratio(X)	0.83	0.22	0.78	0.78	0.73	0.50
Avail Cap(c_a), veh/h	816	3468	1440	702	421	1213
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	25.9	4.0	16.7	16.7	25.3	15.3
Incr Delay (d2), s/veh	6.0	0.1	4.3	8.6	5.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	1.8	9.8	10.4	5.0	3.9
LnGrp Delay(d),s/veh	31.9	4.2	21.0	25.3	30.5	15.7
LnGrp LOS	C	A	C	C	C	B
Approach Vol, veh/h		1337	1677		815	
Approach Delay, s/veh		15.9	22.4		20.3	
Approach LOS		B	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	17.4	32.6				50.0		17.5
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	26.0				46.0		16.0
Max Q Clear Time (g_c+I1), s	12.6	21.4				5.9		12.2
Green Ext Time (p_c), s	0.8	3.7				6.1		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	19.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	471	23	99	66	29	48	185	922	67	21	659	335
Future Volume (veh/h)	471	23	99	66	29	48	185	922	67	21	659	335
Number	3	8	18	7	4	14	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		0.97	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	487	0	99	66	29	48	185	922	67	21	659	335
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	608	0	270	158	56	92	124	1960	996	31	1775	1045
Arrive On Green	0.17	0.00	0.17	0.09	0.09	0.09	0.07	0.55	0.55	0.02	0.50	0.50
Sat Flow, veh/h	3548	0	1572	1774	626	1037	1774	3539	1544	1774	3539	1543
Grp Volume(v), veh/h	487	0	99	66	0	77	185	922	67	21	659	335
Grp Sat Flow(s),veh/h/ln	1774	0	1572	1774	0	1663	1774	1770	1544	1774	1770	1543
Q Serve(g_s), s	13.2	0.0	5.6	3.5	0.0	4.4	7.0	15.7	1.6	1.2	11.4	9.1
Cycle Q Clear(g_c), s	13.2	0.0	5.6	3.5	0.0	4.4	7.0	15.7	1.6	1.2	11.4	9.1
Prop In Lane	1.00		1.00	1.00		0.62	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	608	0	270	158	0	148	124	1960	996	31	1775	1045
V/C Ratio(X)	0.80	0.00	0.37	0.42	0.00	0.52	1.49	0.47	0.07	0.67	0.37	0.32
Avail Cap(c_a), veh/h	993	0	440	479	0	449	124	1960	996	71	1775	1045
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	0.90	0.90	0.90	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	0.0	36.6	43.1	0.0	43.5	46.5	13.5	6.7	48.8	15.3	6.8
Incr Delay (d2), s/veh	1.9	0.0	0.6	1.3	0.0	2.1	254.6	0.7	0.1	8.8	0.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	0.0	2.5	1.8	0.0	2.1	12.2	7.9	0.9	0.7	5.7	6.1
LnGrp Delay(d),s/veh	41.6	0.0	37.2	44.4	0.0	45.6	301.1	14.2	6.8	57.6	15.9	7.6
LnGrp LOS	D		D	D		D	F	B	A	E	B	A
Approach Vol, veh/h		586			143			1174			1015	
Approach Delay, s/veh		40.9			45.0			59.0			14.0	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.8	60.0		13.1	11.0	54.7		21.1
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.0	4.6		4.0
Max Green Setting (Gmax), s	4.0	24.2		* 27	7.0	21.2		28.0
Max Q Clear Time (g_c+I1), s	3.2	17.7		6.4	9.0	13.4		15.2
Green Ext Time (p_c), s	0.0	4.6		0.4	0.0	5.1		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	39.0
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	29.1
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	346	86	182	239	21	87	147	220	39	123	28
Future Vol, veh/h	45	346	86	182	239	21	87	147	220	39	123	28
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	45	346	86	182	239	21	87	147	220	39	123	28
Number of Lanes	1	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	3
HCM Control Delay	40	25.7	23.3	23.7
HCM LOS	E	D	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1
Vol Left, %	37%	0%	100%	0%	0%	100%	0%	21%
Vol Thru, %	63%	0%	0%	100%	0%	0%	92%	65%
Vol Right, %	0%	100%	0%	0%	100%	0%	8%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	234	220	45	346	86	182	260	190
LT Vol	87	0	45	0	0	182	0	39
Through Vol	147	0	0	346	0	0	239	123
RT Vol	0	220	0	0	86	0	21	28
Lane Flow Rate	234	220	45	346	86	182	260	190
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.613	0.521	0.12	0.874	0.2	0.494	0.664	0.53
Departure Headway (Hd)	9.438	8.521	9.616	9.097	8.37	9.781	9.198	10.036
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	381	422	372	398	427	368	393	359
Service Time	7.221	6.304	7.396	6.877	6.15	7.567	6.984	7.83
HCM Lane V/C Ratio	0.614	0.521	0.121	0.869	0.201	0.495	0.662	0.529
HCM Control Delay	26.2	20.3	13.7	50	13.3	21.8	28.5	23.7
HCM Lane LOS	D	C	B	E	B	C	D	C
HCM 95th-tile Q	3.9	2.9	0.4	8.7	0.7	2.6	4.6	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	132	32	138	119	211	48	1216	102	150	1363	21
Future Volume (veh/h)	23	132	32	138	119	211	48	1216	102	150	1363	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	140	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	23	132	0	138	119	211	48	1216	102	150	1363	0
Adj No. of Lanes	0	2	0	0	2	0	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	72	489	0	188	141	304	62	2730	167	257	2358	1055
Arrive On Green	0.23	0.23	0.00	0.23	0.23	0.23	0.03	0.56	0.56	0.14	0.67	0.00
Sat Flow, veh/h	194	2185	0	674	606	1306	1774	4776	400	1774	3539	1583
Grp Volume(v), veh/h	63	92	0	238	0	230	48	863	455	150	1363	0
Grp Sat Flow(s),veh/h/ln	683	1610	0	1159	0	1427	1774	1695	1786	1774	1770	1583
Q Serve(g_s), s	2.9	8.4	0.0	29.0	0.0	26.8	4.9	27.5	27.5	14.3	38.0	0.0
Cycle Q Clear(g_c), s	29.7	8.4	0.0	37.4	0.0	26.8	4.9	27.5	27.5	14.3	38.0	0.0
Prop In Lane	0.37		0.00	0.58		0.92	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	186	375	0	301	0	332	62	1885	1004	257	2358	1055
V/C Ratio(X)	0.34	0.25	0.00	0.79	0.00	0.69	0.78	0.46	0.45	0.58	0.58	0.00
Avail Cap(c_a), veh/h	311	514	0	427	0	456	137	1885	993	332	2358	1055
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	62.3	56.7	0.0	71.9	0.0	63.7	87.0	30.0	29.3	72.5	16.4	0.0
Incr Delay (d2), s/veh	1.1	0.3	0.0	6.3	0.0	2.7	18.9	0.8	1.5	2.1	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.5	28.4	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.8	0.0	12.1	0.0	10.8	2.7	34.1	34.2	7.2	18.9	0.0
LnGrp Delay(d),s/veh	63.3	57.0	0.0	78.2	0.0	66.4	105.8	63.3	59.3	74.6	17.5	0.0
LnGrp LOS	E	E		E		E	F	E	E	E	B	
Approach Vol, veh/h		155			468			1366			1513	
Approach Delay, s/veh		59.6			72.4			63.4			23.2	
Approach LOS		E			E			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	30.3	105.0		46.3	10.3	125.0		46.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	34.0	101.0		58.0	14.0	121.0		58.0
Max Q Clear Time (g_c+I1), s	16.3	29.5		31.7	6.9	40.0		39.4
Green Ext Time (p_c), s	0.3	13.4		0.9	0.0	16.5		2.9

Intersection Summary	
HCM 2010 Ctrl Delay	47.1
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	352	40	517	281	295	71	1032	483	277	1241	64
Future Volume (veh/h)	142	352	40	517	281	295	71	1032	483	277	1241	64
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		0.96	1.00		0.97	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	142	352	40	517	281	295	71	1032	483	277	1241	64
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	171	431	49	597	395	482	91	1643	1000	341	1813	963
Arrive On Green	0.10	0.14	0.14	0.17	0.21	0.21	0.05	0.46	0.46	0.10	0.51	0.51
Sat Flow, veh/h	1774	3191	359	3442	1863	1530	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	142	194	198	517	281	295	71	1032	483	277	1241	64
Grp Sat Flow(s),veh/h/ln	1774	1770	1781	1721	1863	1530	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	9.8	13.3	13.5	18.3	17.5	5.7	4.9	27.6	9.3	9.9	32.9	2.1
Cycle Q Clear(g_c), s	9.8	13.3	13.5	18.3	17.5	5.7	4.9	27.6	9.3	9.9	32.9	2.1
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	171	239	240	597	395	482	91	1643	1000	341	1813	963
V/C Ratio(X)	0.83	0.81	0.82	0.87	0.71	0.61	0.78	0.63	0.48	0.81	0.68	0.07
Avail Cap(c_a), veh/h	284	326	328	826	492	561	170	1643	1000	496	1813	963
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	55.5	52.5	52.6	50.2	45.7	21.4	58.6	25.3	4.1	55.1	22.9	10.0
Incr Delay (d2), s/veh	9.9	10.5	11.6	7.2	3.6	1.5	13.5	1.8	1.7	6.5	2.1	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	5.3	7.2	7.4	9.3	9.4	8.1	2.8	13.9	4.3	5.0	16.6	0.9
LnGrp Delay(d),s/veh	65.4	63.0	64.2	57.4	49.2	22.9	72.1	27.2	5.7	61.6	25.0	10.1
LnGrp LOS	E	E	E	E	D	C	E	C	A	E	C	B
Approach Vol, veh/h		534			1093			1586			1582	
Approach Delay, s/veh		64.1			46.0			22.6			30.8	
Approach LOS		E			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	16.4	62.0	25.7	20.9	10.4	68.0	16.0	30.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	58.0	30.0	23.0	12.0	64.0	20.0	33.0
Max Q Clear Time (g_c+I1), s	11.9	29.6	20.3	15.5	6.9	34.9	11.8	19.5
Green Ext Time (p_c), s	0.5	11.3	1.4	1.3	0.1	11.5	0.2	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	35.3
HCM 2010 LOS	D

Notes

User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	508	245	2042	0	0	766
Future Volume (veh/h)	508	245	2042	0	0	766
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	508	245	2042	0	0	766
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	670	542	2484	0	0	2484
Arrive On Green	0.19	0.19	0.70	0.00	0.00	0.70
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	508	245	2042	0	0	766
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	11.2	6.2	32.5	0.0	0.0	6.6
Cycle Q Clear(g_c), s	11.2	6.2	32.5	0.0	0.0	6.6
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	670	542	2484	0	0	2484
V/C Ratio(X)	0.76	0.45	0.82	0.00	0.00	0.31
Avail Cap(c_a), veh/h	1076	871	2484	0	0	2484
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.54	0.00	0.00	1.00
Uniform Delay (d), s/veh	30.4	28.5	8.4	0.0	0.0	4.5
Incr Delay (d2), s/veh	1.8	0.6	1.8	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	2.4	16.2	0.0	0.0	3.3
LnGrp Delay(d),s/veh	32.2	29.0	10.2	0.0	0.0	4.9
LnGrp LOS	C	C	B			A
Approach Vol, veh/h	753		2042			766
Approach Delay, s/veh	31.2		10.2			4.9
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		60.2				60.2		19.8
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		46.7				46.7		25.0
Max Q Clear Time (g_c+I1), s		34.5				8.6		13.2
Green Ext Time (p_c), s		10.3				6.3		2.4

Intersection Summary	
HCM 2010 Ctrl Delay	13.5
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1352	403	0	1015	881	0
Future Volume (veh/h)	1352	403	0	1015	881	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1352	403	0	1015	881	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1485	683	0	1649	1649	0
Arrive On Green	0.43	0.43	0.00	0.47	0.93	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1352	403	0	1015	881	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	29.4	15.5	0.0	17.2	2.7	0.0
Cycle Q Clear(g_c), s	29.4	15.5	0.0	17.2	2.7	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1485	683	0	1649	1649	0
V/C Ratio(X)	0.91	0.59	0.00	0.62	0.53	0.00
Avail Cap(c_a), veh/h	1717	790	0	1649	1649	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.89	0.00
Uniform Delay (d), s/veh	21.3	17.3	0.0	16.0	1.5	0.0
Incr Delay (d2), s/veh	6.5	0.4	0.0	1.7	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.2	6.8	0.0	8.7	1.2	0.0
LnGrp Delay(d),s/veh	27.7	17.7	0.0	17.7	2.7	0.0
LnGrp LOS	C	B		B	A	
Approach Vol, veh/h	1755			1015	881	
Approach Delay, s/veh	25.4			17.7	2.7	
Approach LOS	C			B	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		41.4		38.6		41.4		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		31.9		39.9		31.9		
Max Q Clear Time (g_c+I1), s		19.2		31.4		4.7		
Green Ext Time (p_c), s		4.2		3.1		4.6		

Intersection Summary	
HCM 2010 Ctrl Delay	17.8
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	12.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	411	63	48	271	22	43	63	62	41	74	29
Future Vol, veh/h	59	411	63	48	271	22	43	63	62	41	74	29
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	411	63	48	271	22	43	63	62	41	74	29
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	13.6	11.8	11.8	11.6
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	26%	22%	0%	26%	0%	28%
Vol Thru, %	38%	78%	77%	74%	86%	51%
Vol Right, %	37%	0%	23%	0%	14%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	168	265	269	184	158	144
LT Vol	43	59	0	48	0	41
Through Vol	63	206	206	136	136	74
RT Vol	62	0	63	0	22	29
Lane Flow Rate	168	264	268	184	158	144
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.29	0.453	0.439	0.328	0.271	0.255
Departure Headway (Hd)	6.21	6.165	5.885	6.43	6.197	6.376
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	576	582	609	556	576	560
Service Time	4.284	3.925	3.645	4.197	3.964	4.453
HCM Lane V/C Ratio	0.292	0.454	0.44	0.331	0.274	0.257
HCM Control Delay	11.8	14	13.2	12.3	11.3	11.6
HCM Lane LOS	B	B	B	B	B	B
HCM 95th-tile Q	1.2	2.3	2.2	1.4	1.1	1

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	79	631	18	20	597	48	5	2	17	30	0	75
Future Vol, veh/h	79	631	18	20	597	48	5	2	17	30	0	75
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	79	631	18	20	597	48	5	2	17	30	0	75

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	676	0	0	665	0	0	1153	1530	366	1192	1515	354
Stage 1	-	-	-	-	-	-	814	814	-	692	692	-
Stage 2	-	-	-	-	-	-	339	716	-	500	823	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	911	-	-	920	-	-	152	116	631	143	118	642
Stage 1	-	-	-	-	-	-	338	390	-	400	443	-
Stage 2	-	-	-	-	-	-	649	432	-	521	386	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	887	-	-	908	-	-	115	93	610	113	94	625
Mov Cap-2 Maneuver	-	-	-	-	-	-	115	93	-	113	94	-
Stage 1	-	-	-	-	-	-	287	331	-	335	416	-
Stage 2	-	-	-	-	-	-	551	406	-	424	328	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.4	20.4	26.3
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	258	887	-	-	908	-	-	272
HCM Lane V/C Ratio	0.093	0.089	-	-	0.022	-	-	0.386
HCM Control Delay (s)	20.4	9.5	0.5	-	9.1	0.1	-	26.3
HCM Lane LOS	C	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.3	0.3	-	-	0.1	-	-	1.7

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	70	11	8	86	2	14	2	14	5	0	1
Future Vol, veh/h	1	70	11	8	86	2	14	2	14	5	0	1
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	70	11	8	86	2	14	2	14	5	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	92	0	0	82	0	0	184	187	78	194	191	92
Stage 1	-	-	-	-	-	-	79	79	-	107	107	-
Stage 2	-	-	-	-	-	-	105	108	-	87	84	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1503	-	-	1515	-	-	777	708	983	765	704	965
Stage 1	-	-	-	-	-	-	930	829	-	898	807	-
Stage 2	-	-	-	-	-	-	901	806	-	921	825	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1498	-	-	1514	-	-	771	700	981	745	696	961
Mov Cap-2 Maneuver	-	-	-	-	-	-	771	700	-	745	696	-
Stage 1	-	-	-	-	-	-	928	827	-	894	800	-
Stage 2	-	-	-	-	-	-	894	799	-	904	823	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.6	9.4	9.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	850	1498	-	-	1514	-	-	774
HCM Lane V/C Ratio	0.035	0.001	-	-	0.005	-	-	0.008
HCM Control Delay (s)	9.4	7.4	0	-	7.4	0	-	9.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	37	6	9	54	9	16	14	18	5	31	7
Future Vol, veh/h	7	37	6	9	54	9	16	14	18	5	31	7
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	37	6	9	54	9	16	14	18	5	31	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	65	0	0	45	0	0	153	139	43	150	138	62
Stage 1	-	-	-	-	-	-	56	56	-	79	79	-
Stage 2	-	-	-	-	-	-	97	83	-	71	59	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1537	-	-	1563	-	-	814	752	1027	818	753	1003
Stage 1	-	-	-	-	-	-	956	848	-	930	829	-
Stage 2	-	-	-	-	-	-	910	826	-	939	846	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1534	-	-	1560	-	-	774	741	1024	784	742	1000
Mov Cap-2 Maneuver	-	-	-	-	-	-	774	741	-	784	742	-
Stage 1	-	-	-	-	-	-	949	842	-	923	822	-
Stage 2	-	-	-	-	-	-	864	819	-	902	840	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.9	9.5	9.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	840	1534	-	-	1560	-	-	780
HCM Lane V/C Ratio	0.057	0.005	-	-	0.006	-	-	0.055
HCM Control Delay (s)	9.5	7.4	0	-	7.3	0	-	9.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	43	2	13	52	2	7	11	13	1	3	5
Future Vol, veh/h	1	43	2	13	52	2	7	11	13	1	3	5
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	43	2	13	52	2	7	11	13	1	3	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	55	0	0	45	0	0	130	127	46	140	127	55
Stage 1	-	-	-	-	-	-	46	46	-	80	80	-
Stage 2	-	-	-	-	-	-	84	81	-	60	47	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1550	-	-	1563	-	-	843	764	1023	830	764	1012
Stage 1	-	-	-	-	-	-	968	857	-	929	828	-
Stage 2	-	-	-	-	-	-	924	828	-	951	856	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1549	-	-	1563	-	-	830	756	1021	802	756	1010
Mov Cap-2 Maneuver	-	-	-	-	-	-	830	756	-	802	756	-
Stage 1	-	-	-	-	-	-	967	856	-	927	820	-
Stage 2	-	-	-	-	-	-	907	820	-	924	855	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.4	9.3	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	868	1549	-	-	1563	-	-	885
HCM Lane V/C Ratio	0.036	0.001	-	-	0.008	-	-	0.01
HCM Control Delay (s)	9.3	7.3	0	-	7.3	0	-	9.1
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	43	0	18	42	3	36
Future Vol, veh/h	43	0	18	42	3	36
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	0	18	42	3	36

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	46	0	125	46
Stage 1	-	-	-	-	46	-
Stage 2	-	-	-	-	79	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1562	-	891	1023
Stage 1	-	-	-	-	976	-
Stage 2	-	-	-	-	957	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1558	-	878	1020
Mov Cap-2 Maneuver	-	-	-	-	878	-
Stage 1	-	-	-	-	974	-
Stage 2	-	-	-	-	945	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1007	-	-	1558	-
HCM Lane V/C Ratio	0.039	-	-	0.012	-
HCM Control Delay (s)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	47	8	5	62	4	2	4	3	2	3	35
Future Vol, veh/h	35	47	8	5	62	4	2	4	3	2	3	35
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	47	8	5	62	4	2	4	3	2	3	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	68	0	0	56	0	0	216	200	52	201	202	67
Stage 1	-	-	-	-	-	-	122	122	-	76	76	-
Stage 2	-	-	-	-	-	-	94	78	-	125	126	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1533	-	-	1549	-	-	740	696	1016	757	694	997
Stage 1	-	-	-	-	-	-	882	795	-	933	832	-
Stage 2	-	-	-	-	-	-	913	830	-	879	792	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1530	-	-	1548	-	-	696	675	1015	735	673	995
Mov Cap-2 Maneuver	-	-	-	-	-	-	696	675	-	735	673	-
Stage 1	-	-	-	-	-	-	860	775	-	909	828	-
Stage 2	-	-	-	-	-	-	874	826	-	851	772	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.9	0.5	9.8	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	766	1530	-	-	1548	-	-	944
HCM Lane V/C Ratio	0.012	0.023	-	-	0.003	-	-	0.042
HCM Control Delay (s)	9.8	7.4	0	-	7.3	0	-	9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	18	6	21	38	49	5	107	15	73	170	43
Future Vol, veh/h	31	18	6	21	38	49	5	107	15	73	170	43
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	18	6	21	38	49	5	107	15	73	170	43
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	8.5	8.5	8.5	9.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	56%	19%	26%
Vol Thru, %	84%	33%	35%	59%
Vol Right, %	12%	11%	45%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	127	55	108	286
LT Vol	5	31	21	73
Through Vol	107	18	38	170
RT Vol	15	6	49	43
Lane Flow Rate	127	55	108	286
Geometry Grp	1	1	1	1
Degree of Util (X)	0.162	0.077	0.141	0.352
Departure Headway (Hd)	4.585	5.062	4.713	4.436
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	781	706	759	809
Service Time	2.621	3.107	2.752	2.467
HCM Lane V/C Ratio	0.163	0.078	0.142	0.354
HCM Control Delay	8.5	8.5	8.5	9.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.2	0.5	1.6

Intersection	
Intersection Delay, s/veh	20.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	89	48	32	29	32	98	13	207	49	92	363	92
Future Vol, veh/h	89	48	32	29	32	98	13	207	49	92	363	92
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	89	48	32	29	32	98	13	207	49	92	363	92
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	12.6	11.8	13.4	28.1
HCM LOS	B	B	B	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	53%	18%	17%
Vol Thru, %	77%	28%	20%	66%
Vol Right, %	18%	19%	62%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	269	169	159	547
LT Vol	13	89	29	92
Through Vol	207	48	32	363
RT Vol	49	32	98	92
Lane Flow Rate	269	169	159	547
Geometry Grp	1	1	1	1
Degree of Util (X)	0.44	0.31	0.279	0.816
Departure Headway (Hd)	5.885	6.597	6.315	5.477
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	616	546	571	667
Service Time	3.885	4.622	4.342	3.477
HCM Lane V/C Ratio	0.437	0.31	0.278	0.82
HCM Control Delay	13.4	12.6	11.8	28.1
HCM Lane LOS	B	B	B	D
HCM 95th-tile Q	2.2	1.3	1.1	8.5

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	11	86	1	11	0	130	3	4	0	0	0
Future Vol, veh/h	2	11	86	1	11	0	130	3	4	0	0	0
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	11	86	1	11	0	130	3	4	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	11	0	0	98	0	0	72	72	55	75	115	11
Stage 1	-	-	-	-	-	-	59	59	-	13	13	-
Stage 2	-	-	-	-	-	-	13	13	-	62	102	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1608	-	-	1495	-	-	919	818	1012	915	775	1070
Stage 1	-	-	-	-	-	-	953	846	-	1007	885	-
Stage 2	-	-	-	-	-	-	1007	885	-	949	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1608	-	-	1494	-	-	917	816	1011	908	773	1070
Mov Cap-2 Maneuver	-	-	-	-	-	-	917	816	-	908	773	-
Stage 1	-	-	-	-	-	-	951	844	-	1006	884	-
Stage 2	-	-	-	-	-	-	1006	884	-	941	809	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.6	9.6	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	917	1608	-	-	1494	-	-	-
HCM Lane V/C Ratio	0.149	0.001	-	-	0.001	-	-	-
HCM Control Delay (s)	9.6	7.2	0	-	7.4	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	47	23	12	850	630	127
Future Vol, veh/h	47	23	12	850	630	127
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	23	12	850	630	127

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1507	633	760	0	-	0
Stage 1	633	-	-	-	-	-
Stage 2	874	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	133	480	852	-	-	-
Stage 1	529	-	-	-	-	-
Stage 2	408	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	129	479	850	-	-	-
Mov Cap-2 Maneuver	325	-	-	-	-	-
Stage 1	514	-	-	-	-	-
Stage 2	407	-	-	-	-	-

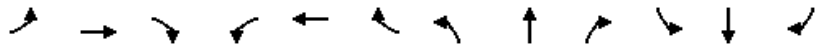
Approach	EB	NB	SB
HCM Control Delay, s	17.3	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	850	-	363	-	-
HCM Lane V/C Ratio	0.014	-	0.193	-	-
HCM Control Delay (s)	9.3	0	17.3	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.7	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	444	12	350	425	0	866
Future Volume (veh/h)	444	12	350	425	0	866
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	444	12	350	0	0	866
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	529	14	1478	0	0	1478
Arrive On Green	0.31	0.31	0.42	0.00	0.00	0.42
Sat Flow, veh/h	1718	46	3725	0	0	3725
Grp Volume(v), veh/h	457	0	350	0	0	866
Grp Sat Flow(s),veh/h/ln	1769	0	1770	0	0	1770
Q Serve(g_s), s	6.6	0.0	1.7	0.0	0.0	5.2
Cycle Q Clear(g_c), s	6.6	0.0	1.7	0.0	0.0	5.2
Prop In Lane	0.97	0.03		0.00	0.00	
Lane Grp Cap(c), veh/h	544	0	1478	0	0	1478
V/C Ratio(X)	0.84	0.00	0.24	0.00	0.00	0.59
Avail Cap(c_a), veh/h	972	0	2269	0	0	2269
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	8.8	0.0	5.1	0.0	0.0	6.1
Incr Delay (d2), s/veh	1.4	0.0	0.1	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.8	0.0	0.0	2.5
LnGrp Delay(d),s/veh	10.2	0.0	5.2	0.0	0.0	6.6
LnGrp LOS	B		A			A
Approach Vol, veh/h	457		350			866
Approach Delay, s/veh	10.2		5.2			6.6
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		15.9		11.4		15.9		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		17.5		15.0		17.5		
Max Q Clear Time (g_c+I1), s		3.7		8.6		7.2		
Green Ext Time (p_c), s		2.2		0.1		4.3		

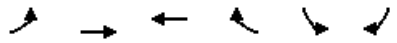
Intersection Summary	
HCM 2010 Ctrl Delay	7.3
HCM 2010 LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	351	490	17	245	69	122	215	17	65	350	16
Future Volume (veh/h)	39	351	490	17	245	69	122	215	17	65	350	16
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.91	0.99		0.91	1.00		0.96	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	39	351	490	17	245	69	122	215	17	65	350	16
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	136	1130	903	74	913	247	154	271	354	78	418	411
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.23	0.23	0.23	0.27	0.27	0.27
Sat Flow, veh/h	242	3038	1439	85	2454	665	662	1167	1527	289	1559	1532
Grp Volume(v), veh/h	200	190	490	175	0	156	337	0	17	415	0	16
Grp Sat Flow(s),veh/h/ln	1669	1610	1439	1702	0	1502	1830	0	1527	1848	0	1532
Q Serve(g_s), s	0.0	7.9	19.2	0.0	0.0	6.8	16.3	0.0	0.8	19.9	0.0	0.7
Cycle Q Clear(g_c), s	7.1	7.9	19.2	6.1	0.0	6.8	16.3	0.0	0.8	19.9	0.0	0.7
Prop In Lane	0.20		1.00	0.10		0.44	0.36		1.00	0.16		1.00
Lane Grp Cap(c), veh/h	667	599	903	675	0	559	425	0	354	496	0	411
V/C Ratio(X)	0.30	0.32	0.54	0.26	0.00	0.28	0.79	0.00	0.05	0.84	0.00	0.04
Avail Cap(c_a), veh/h	667	599	903	675	0	559	739	0	617	884	0	733
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.8	21.0	11.2	20.5	0.0	20.7	34.0	0.0	28.0	32.5	0.0	25.4
Incr Delay (d2), s/veh	1.2	1.4	2.3	0.9	0.0	1.2	3.4	0.0	0.1	3.8	0.0	0.0
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	3.9	3.7	12.7	3.3	0.0	3.0	8.6	0.0	0.4	10.7	0.0	0.3
LnGrp Delay(d),s/veh	21.9	22.4	13.5	21.4	0.0	21.9	37.4	0.0	28.1	36.3	0.0	25.5
LnGrp LOS	C	C	B	C		C	D		C	D		C
Approach Vol, veh/h		880			331			354			431	
Approach Delay, s/veh		17.4			21.6			37.0			35.9	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		39.0		25.8		39.0		29.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		35.0		38.0		35.0		45.0
Max Q Clear Time (g_c+I1), s		21.2		18.3		8.8		21.9
Green Ext Time (p_c), s		3.9		2.1		2.2		2.8

Intersection Summary	
HCM 2010 Ctrl Delay	25.5
HCM 2010 LOS	C



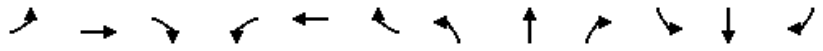
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	337	374	213	516	461	238
Future Volume (veh/h)	337	374	213	516	461	238
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	337	374	213	516	461	238
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	371	1213	764	1076	500	777
Arrive On Green	0.21	0.65	0.41	0.41	0.28	0.28
Sat Flow, veh/h	1774	1863	1863	1535	1774	1583
Grp Volume(v), veh/h	337	374	213	516	461	238
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1535	1774	1583
Q Serve(g_s), s	23.3	11.0	9.6	19.6	31.7	11.3
Cycle Q Clear(g_c), s	23.3	11.0	9.6	19.6	31.7	11.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	371	1213	764	1076	500	777
V/C Ratio(X)	0.91	0.31	0.28	0.48	0.92	0.31
Avail Cap(c_a), veh/h	636	1213	764	1076	845	1085
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	48.5	9.5	24.6	9.0	43.8	19.2
Incr Delay (d2), s/veh	10.1	0.7	0.9	1.5	8.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.5	5.8	5.1	16.4	16.6	12.5
LnGrp Delay(d),s/veh	58.6	10.2	25.6	10.5	52.0	19.3
LnGrp LOS	E	B	C	B	D	B
Approach Vol, veh/h		711	729		699	
Approach Delay, s/veh		33.2	14.9		40.9	
Approach LOS		C	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		86.0		39.6	30.3	55.7		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 82		* 60	45.0	* 33		
Max Q Clear Time (g_c+I1), s		13.0		33.7	25.3	21.6		
Green Ext Time (p_c), s		1.6		1.7	1.0	1.6		

Intersection Summary	
HCM 2010 Ctrl Delay	29.5
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	60	0	54	14	195	0	763	62	232	761	96
Future Volume (veh/h)	153	60	0	54	14	195	0	763	62	232	761	96
Number	7	4	14	3	8	18	1	6	16	5	2	12
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		0.98	1.00		0.98	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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	153	60	0	54	14	195	0	763	62	232	761	96
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	249	85	0	323	75	886	0	893	73	608	2101	265
Arrive On Green	0.22	0.22	0.00	0.22	0.22	0.22	0.00	0.27	0.27	0.34	0.66	0.66
Sat Flow, veh/h	780	386	0	1099	340	1555	0	3401	269	1774	3163	399
Grp Volume(v), veh/h	213	0	0	68	0	195	0	408	417	232	426	431
Grp Sat Flow(s),veh/h/ln	1165	0	0	1439	0	1555	0	1770	1807	1774	1770	1792
Q Serve(g_s), s	11.5	0.0	0.0	0.0	0.0	0.0	0.0	17.5	17.5	7.9	8.5	8.5
Cycle Q Clear(g_c), s	14.4	0.0	0.0	3.0	0.0	0.0	0.0	17.5	17.5	7.9	8.5	8.5
Prop In Lane	0.72		0.00	0.79		1.00	0.00		0.15	1.00		0.22
Lane Grp Cap(c), veh/h	334	0	0	398	0	886	0	478	488	608	1176	1190
V/C Ratio(X)	0.64	0.00	0.00	0.17	0.00	0.22	0.00	0.85	0.85	0.38	0.36	0.36
Avail Cap(c_a), veh/h	488	0	0	566	0	1070	0	535	547	608	1176	1190
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	0.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	30.6	0.0	0.0	25.4	0.0	8.7	0.0	27.7	27.7	19.9	5.9	5.9
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.1	0.0	0.1	0.0	17.4	17.1	0.1	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	0.0	1.2	0.0	2.1	0.0	10.8	11.0	3.9	4.4	4.4
LnGrp Delay(d),s/veh	32.1	0.0	0.0	25.5	0.0	8.8	0.0	45.1	44.9	20.0	6.7	6.7
LnGrp LOS	C			C		A		D	D	B	A	A
Approach Vol, veh/h		213			263			825			1089	
Approach Delay, s/veh		32.1			13.1			45.0			9.5	
Approach LOS		C			B			D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		57.7		22.3	32.0	25.7		22.3
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		43.7		27.1	15.9	* 24		27.1
Max Q Clear Time (g_c+I1), s		10.5		16.4	9.9	19.5		5.0
Green Ext Time (p_c), s		6.4		0.8	0.2	2.1		0.8

Intersection Summary		
HCM 2010 Ctrl Delay		24.2
HCM 2010 LOS		C

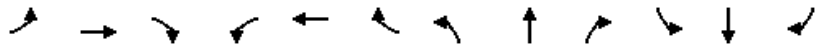
Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	566	1670	595	176	524	778
Future Volume (veh/h)	566	1670	595	176	524	778
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	566	1670	595	176	524	778
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	680	2746	1120	322	625	1531
Arrive On Green	0.20	0.54	0.29	0.29	0.35	0.35
Sat Flow, veh/h	3442	5253	4048	1117	1774	2787
Grp Volume(v), veh/h	566	1670	518	253	524	778
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1608	1774	1393
Q Serve(g_s), s	11.7	16.7	9.5	9.9	20.1	12.9
Cycle Q Clear(g_c), s	11.7	16.7	9.5	9.9	20.1	12.9
Prop In Lane	1.00			0.69	1.00	1.00
Lane Grp Cap(c), veh/h	680	2746	978	464	625	1531
V/C Ratio(X)	0.83	0.61	0.53	0.55	0.84	0.51
Avail Cap(c_a), veh/h	836	2746	978	464	766	1754
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	28.6	11.7	22.1	22.3	22.1	10.4
Incr Delay (d2), s/veh	6.0	1.0	2.0	4.6	6.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	8.0	4.7	4.9	11.0	5.0
LnGrp Delay(d),s/veh	34.6	12.7	24.2	26.8	29.0	10.7
LnGrp LOS	C	B	C	C	C	B
Approach Vol, veh/h		2236	771		1302	
Approach Delay, s/veh		18.2	25.0		18.1	
Approach LOS		B	C		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	18.6	25.4				44.0		30.1
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	14.6	18.0				40.0		32.0
Max Q Clear Time (g_c+I1), s	13.7	11.9				18.7		22.1
Green Ext Time (p_c), s	0.9	2.5				12.7		4.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.4
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	464	47	169	32	17	21	112	811	96	19	946	426
Future Volume (veh/h)	464	47	169	32	17	21	112	811	96	19	946	426
Number	3	8	18	7	4	14	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		0.98	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	498	0	169	32	17	21	112	811	96	19	946	426
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	570	0	252	103	44	54	590	2342	1115	25	1202	777
Arrive On Green	0.16	0.00	0.16	0.06	0.06	0.06	0.67	1.00	1.00	0.01	0.34	0.34
Sat Flow, veh/h	3548	0	1572	1774	750	926	1774	3539	1545	1774	3539	1539
Grp Volume(v), veh/h	498	0	169	32	0	38	112	811	96	19	946	426
Grp Sat Flow(s),veh/h/ln	1774	0	1572	1774	0	1676	1774	1770	1545	1774	1770	1539
Q Serve(g_s), s	21.9	0.0	16.2	2.8	0.0	3.5	3.9	0.0	0.0	1.7	38.5	30.6
Cycle Q Clear(g_c), s	21.9	0.0	16.2	2.8	0.0	3.5	3.9	0.0	0.0	1.7	38.5	30.6
Prop In Lane	1.00		1.00	1.00		0.55	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	570	0	252	103	0	98	590	2342	1115	25	1202	777
V/C Ratio(X)	0.87	0.00	0.67	0.31	0.00	0.39	0.19	0.35	0.09	0.75	0.79	0.55
Avail Cap(c_a), veh/h	843	0	373	308	0	291	590	2342	1115	67	1336	835
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.87	0.87	0.87	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.6	0.0	63.2	72.3	0.0	72.6	18.5	0.0	0.0	78.6	47.6	27.6
Incr Delay (d2), s/veh	6.2	0.0	2.3	1.2	0.0	1.9	0.1	0.4	0.1	15.2	5.2	2.8
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	11.3	0.0	7.2	1.4	0.0	1.7	1.9	0.1	0.0	0.9	19.7	17.8
LnGrp Delay(d),s/veh	71.7	0.0	65.4	73.5	0.0	74.5	18.6	0.4	0.1	93.8	52.9	30.4
LnGrp LOS	E		E	E		E	B	A	A	F	D	C
Approach Vol, veh/h		667			70			1019			1391	
Approach Delay, s/veh		70.1			74.0			2.3			46.5	
Approach LOS		E			E			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.3	110.5		13.5	57.8	58.9		29.7
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.6	* 4.6		4.0
Max Green Setting (Gmax), s	6.3	71.4		* 28	17.0	* 60		38.0
Max Q Clear Time (g_c+I1), s	13.7	2.0		5.5	5.9	40.5		23.9
Green Ext Time (p_c), s	0.0	16.5		0.2	0.1	13.8		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	37.8
HCM 2010 LOS	D

Notes

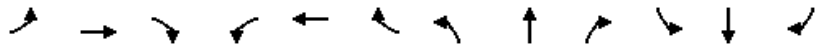
User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	30.9
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	267	68	205	305	33	73	118	214	37	159	55
Future Vol, veh/h	34	267	68	205	305	33	73	118	214	37	159	55
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	267	68	205	305	33	73	118	214	37	159	55
Number of Lanes	1	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	3
HCM Control Delay	28.1	38.9	22.1	32
HCM LOS	D	E	C	D

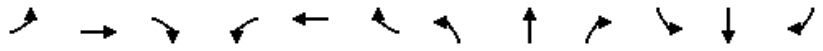
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1
Vol Left, %	38%	0%	100%	0%	0%	100%	0%	15%
Vol Thru, %	62%	0%	0%	100%	0%	0%	90%	63%
Vol Right, %	0%	100%	0%	0%	100%	0%	10%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	191	214	34	267	68	205	338	251
LT Vol	73	0	34	0	0	205	0	37
Through Vol	118	0	0	267	0	0	305	159
RT Vol	0	214	0	0	68	0	33	55
Lane Flow Rate	191	214	34	267	68	205	338	251
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.522	0.53	0.096	0.718	0.169	0.556	0.86	0.689
Departure Headway (Hd)	9.842	8.917	10.204	9.682	8.952	9.759	9.163	9.886
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	367	404	352	374	401	371	395	366
Service Time	7.58	6.655	7.942	7.42	6.69	7.494	6.898	7.642
HCM Lane V/C Ratio	0.52	0.53	0.097	0.714	0.17	0.553	0.856	0.686
HCM Control Delay	22.9	21.3	14	33.6	13.5	24.1	47.9	32
HCM Lane LOS	C	C	B	D	B	C	E	D
HCM 95th-tile Q	2.9	3	0.3	5.4	0.6	3.2	8.3	4.9



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	139	23	229	163	179	57	1474	102	172	1298	49
Future Volume (veh/h)	4	139	23	229	163	179	57	1474	102	172	1298	49
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	3	180	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	4	139	0	229	163	179	57	1474	102	172	1298	0
Adj No. of Lanes	0	2	0	0	2	0	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	30	856	0	292	213	249	82	2504	87	292	2137	956
Arrive On Green	0.27	0.27	0.00	0.27	0.27	0.27	0.04	0.52	0.52	0.15	0.62	0.00
Sat Flow, veh/h	34	3284	0	950	791	925	1774	4853	336	1774	3539	1583
Grp Volume(v), veh/h	74	69	0	279	0	292	57	1030	546	172	1298	0
Grp Sat Flow(s),veh/h/ln	1623	1610	0	1158	0	1507	1774	1695	1799	1774	1770	1583
Q Serve(g_s), s	0.2	5.9	0.0	36.6	0.0	31.3	5.7	37.8	37.8	16.4	39.1	0.0
Cycle Q Clear(g_c), s	31.5	5.9	0.0	42.4	0.0	31.3	5.7	37.8	37.8	16.4	39.1	0.0
Prop In Lane	0.05		0.00	0.82		0.61	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	452	434	0	347	0	406	82	1675	908	292	2137	956
V/C Ratio(X)	0.16	0.16	0.00	0.80	0.00	0.72	0.69	0.61	0.60	0.59	0.61	0.00
Avail Cap(c_a), veh/h	647	604	0	488	0	565	149	1746	927	338	2200	984
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	51.2	51.3	0.0	68.0	0.0	60.9	85.2	44.2	42.5	71.0	22.9	0.0
Incr Delay (d2), s/veh	0.2	0.2	0.0	6.5	0.0	2.7	10.0	1.7	2.9	2.0	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	31.4	96.0	78.9	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.7	0.0	14.4	0.0	13.8	4.4	59.8	58.4	8.3	21.0	0.0
LnGrp Delay(d),s/veh	51.4	51.5	0.0	74.5	0.0	63.5	126.6	141.9	124.4	73.0	24.2	0.0
LnGrp LOS	D	D		E		E	F	F	F	E	C	
Approach Vol, veh/h		143			571			1633			1470	
Approach Delay, s/veh		51.4			68.9			135.5			29.9	
Approach LOS		D			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	30.3	96.0		52.3	11.3	115.0		52.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	24.3	92.0		67.0	15.0	111.0		67.0
Max Q Clear Time (g_c+I1), s	18.4	39.8		33.5	7.7	41.1		44.4
Green Ext Time (p_c), s	0.4	17.3		0.8	0.0	14.8		3.9

Intersection Summary	
HCM 2010 Ctrl Delay	81.7
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	298	57	417	261	165	67	1504	470	240	1289	63
Future Volume (veh/h)	134	298	57	417	261	165	67	1504	470	240	1289	63
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		0.95	1.00		0.96	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	134	298	57	417	261	165	67	1504	470	240	1289	63
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	156	353	66	474	316	390	85	1978	1092	286	2104	1081
Arrive On Green	0.09	0.12	0.12	0.14	0.17	0.17	0.05	0.56	0.56	0.08	0.59	0.59
Sat Flow, veh/h	1774	2949	554	3442	1863	1522	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	134	177	178	417	261	165	67	1504	470	240	1289	63
Grp Sat Flow(s),veh/h/ln	1774	1770	1733	1721	1863	1522	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	11.9	15.6	16.1	18.9	21.6	14.5	6.0	51.9	20.8	10.9	37.0	2.1
Cycle Q Clear(g_c), s	11.9	15.6	16.1	18.9	21.6	14.5	6.0	51.9	20.8	10.9	37.0	2.1
Prop In Lane	1.00		0.32	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	156	212	208	474	316	390	85	1978	1092	286	2104	1081
V/C Ratio(X)	0.86	0.83	0.86	0.88	0.83	0.42	0.79	0.76	0.43	0.84	0.61	0.06
Avail Cap(c_a), veh/h	223	267	261	627	386	447	145	1978	1092	367	2104	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	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	71.6	68.5	68.8	67.4	63.9	49.9	75.1	26.9	10.5	71.9	20.6	8.4
Incr Delay (d2), s/veh	19.9	16.5	20.0	11.0	11.7	0.7	15.2	2.8	1.2	12.7	1.3	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	6.7	8.6	8.9	9.8	12.1	6.2	3.3	26.0	9.3	5.7	18.5	1.0
LnGrp Delay(d),s/veh	91.5	85.0	88.8	78.4	75.5	50.6	90.2	29.8	11.7	84.6	21.9	8.5
LnGrp LOS	F	F	F	E	E	D	F	C	B	F	C	A
Approach Vol, veh/h		489			843			2041			1592	
Approach Delay, s/veh		88.2			72.1			27.6			30.9	
Approach LOS		F			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	17.2	93.0	25.9	23.1	11.6	98.7	18.0	31.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	89.0	29.0	24.0	13.0	93.0	20.0	33.0
Max Q Clear Time (g_c+I1), s	13.9	53.9	20.9	18.1	8.0	39.0	13.9	23.6
Green Ext Time (p_c), s	0.3	19.1	1.0	1.0	0.0	14.6	0.2	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	42.2
HCM 2010 LOS	D

Notes

User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	745	586	1728	0	0	971
Future Volume (veh/h)	745	586	1728	0	0	971
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	745	586	1728	0	0	971
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	921	746	2224	0	0	2224
Arrive On Green	0.27	0.27	0.63	0.00	0.00	0.63
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	745	586	1728	0	0	971
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	16.2	15.6	28.4	0.0	0.0	11.2
Cycle Q Clear(g_c), s	16.2	15.6	28.4	0.0	0.0	11.2
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	921	746	2224	0	0	2224
V/C Ratio(X)	0.81	0.79	0.78	0.00	0.00	0.44
Avail Cap(c_a), veh/h	1076	871	2224	0	0	2224
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.57	0.00	0.00	1.00
Uniform Delay (d), s/veh	27.4	27.2	10.8	0.0	0.0	7.6
Incr Delay (d2), s/veh	4.1	4.1	1.6	0.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	6.4	14.2	0.0	0.0	5.6
LnGrp Delay(d),s/veh	31.5	31.3	12.4	0.0	0.0	8.2
LnGrp LOS	C	C	B			A
Approach Vol, veh/h	1331		1728			971
Approach Delay, s/veh	31.4		12.4			8.2
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		54.4				54.4		25.6
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		46.7				46.7		25.0
Max Q Clear Time (g_c+I1), s		30.4				13.2		18.2
Green Ext Time (p_c), s		11.7				8.4		3.2

Intersection Summary	
HCM 2010 Ctrl Delay	17.6
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1249	450	0	966	1513	0
Future Volume (veh/h)	1249	450	0	966	1513	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1249	450	0	966	1513	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1346	619	0	1792	1792	0
Arrive On Green	0.39	0.39	0.00	0.51	1.00	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1249	450	0	966	1513	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	27.7	19.3	0.0	14.8	0.0	0.0
Cycle Q Clear(g_c), s	27.7	19.3	0.0	14.8	0.0	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1346	619	0	1792	1792	0
V/C Ratio(X)	0.93	0.73	0.00	0.54	0.84	0.00
Avail Cap(c_a), veh/h	1415	651	0	1792	1792	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.78	0.00
Uniform Delay (d), s/veh	23.3	20.7	0.0	13.4	0.0	0.0
Incr Delay (d2), s/veh	10.2	3.2	0.0	1.2	4.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.1	8.9	0.0	7.4	1.0	0.0
LnGrp Delay(d),s/veh	33.5	24.0	0.0	14.6	4.0	0.0
LnGrp LOS	C	C		B	A	
Approach Vol, veh/h	1699			966	1513	
Approach Delay, s/veh	31.0			14.6	4.0	
Approach LOS	C			B	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		44.6		35.4		44.6		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		38.9		32.9		38.9		
Max Q Clear Time (g_c+I1), s		16.8		29.7		2.0		
Green Ext Time (p_c), s		4.9		1.6		10.5		

Intersection Summary	
HCM 2010 Ctrl Delay	17.4
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	12.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	287	40	74	347	29	52	89	63	21	101	58
Future Vol, veh/h	27	287	40	74	347	29	52	89	63	21	101	58
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	287	40	74	347	29	52	89	63	21	101	58
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	12.2	13.5	12.8	12.3
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	25%	16%	0%	30%	0%	12%
Vol Thru, %	44%	84%	78%	70%	86%	56%
Vol Right, %	31%	0%	22%	0%	14%	32%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	204	171	184	248	203	180
LT Vol	52	27	0	74	0	21
Through Vol	89	144	144	174	174	101
RT Vol	63	0	40	0	29	58
Lane Flow Rate	204	170	184	248	202	180
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.355	0.31	0.322	0.445	0.35	0.315
Departure Headway (Hd)	6.271	6.549	6.312	6.477	6.223	6.299
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	569	546	565	552	575	565
Service Time	4.363	4.334	4.098	4.259	4.004	4.394
HCM Lane V/C Ratio	0.359	0.311	0.326	0.449	0.351	0.319
HCM Control Delay	12.8	12.3	12.1	14.4	12.4	12.3
HCM Lane LOS	B	B	B	B	B	B
HCM 95th-tile Q	1.6	1.3	1.4	2.3	1.6	1.3

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	58	773	7	8	357	38	9	6	35	93	2	84
Future Vol, veh/h	58	773	7	8	357	38	9	6	35	93	2	84
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	773	7	8	357	38	9	6	35	93	2	84

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	426	0	0	796	0	0	1105	1351	431	954	1335	229
Stage 1	-	-	-	-	-	-	909	909	-	423	423	-
Stage 2	-	-	-	-	-	-	196	442	-	531	912	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1130	-	-	822	-	-	165	149	573	213	152	774
Stage 1	-	-	-	-	-	-	296	352	-	579	586	-
Stage 2	-	-	-	-	-	-	787	575	-	500	351	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1101	-	-	811	-	-	132	128	554	169	131	754
Mov Cap-2 Maneuver	-	-	-	-	-	-	132	128	-	169	131	-
Stage 1	-	-	-	-	-	-	265	315	-	512	563	-
Stage 2	-	-	-	-	-	-	688	553	-	408	314	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0.3	20.6	43.2
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	281	1101	-	-	811	-	-	264
HCM Lane V/C Ratio	0.178	0.053	-	-	0.01	-	-	0.678
HCM Control Delay (s)	20.6	8.5	0.3	-	9.5	0.1	-	43.2
HCM Lane LOS	C	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	0.6	0.2	-	-	0	-	-	4.5

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	89	25	63	138	1	11	1	69	4	5	0
Future Vol, veh/h	0	89	25	63	138	1	11	1	69	4	5	0
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	89	25	63	138	1	11	1	69	4	5	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	143	0	0	115	0	0	371	372	104	407	384	144
Stage 1	-	-	-	-	-	-	103	103	-	269	269	-
Stage 2	-	-	-	-	-	-	268	269	-	138	115	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1440	-	-	1474	-	-	586	558	951	555	550	903
Stage 1	-	-	-	-	-	-	903	810	-	737	687	-
Stage 2	-	-	-	-	-	-	738	687	-	865	800	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1435	-	-	1473	-	-	560	530	949	494	523	899
Mov Cap-2 Maneuver	-	-	-	-	-	-	560	530	-	494	523	-
Stage 1	-	-	-	-	-	-	902	809	-	735	653	-
Stage 2	-	-	-	-	-	-	698	653	-	800	799	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.4	9.6	12.2
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	860	1435	-	-	1473	-	-	510
HCM Lane V/C Ratio	0.094	-	-	-	0.043	-	-	0.018
HCM Control Delay (s)	9.6	0	-	-	7.6	0	-	12.2
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	71	17	77	101	2	4	10	15	5	47	25
Future Vol, veh/h	6	71	17	77	101	2	4	10	15	5	47	25
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	71	17	77	101	2	4	10	15	5	47	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	90	0	0	387	353	83	363	360	105
Stage 1	-	-	-	-	-	-	94	94	-	258	258	-
Stage 2	-	-	-	-	-	-	293	259	-	105	102	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1486	-	-	1505	-	-	572	572	976	593	567	949
Stage 1	-	-	-	-	-	-	913	817	-	747	694	-
Stage 2	-	-	-	-	-	-	715	694	-	901	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1484	-	-	1502	-	-	495	537	974	549	532	947
Mov Cap-2 Maneuver	-	-	-	-	-	-	495	537	-	549	532	-
Stage 1	-	-	-	-	-	-	908	812	-	743	655	-
Stage 2	-	-	-	-	-	-	611	655	-	872	806	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	3.2	10.5	11.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	689	1484	-	-	1502	-	-	622
HCM Lane V/C Ratio	0.042	0.004	-	-	0.051	-	-	0.124
HCM Control Delay (s)	10.5	7.4	0	-	7.5	0	-	11.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.2	-	-	0.4

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	78	9	56	168	1	9	3	16	3	6	7
Future Vol, veh/h	9	78	9	56	168	1	9	3	16	3	6	7
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	78	9	56	168	1	9	3	16	3	6	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	170	0	0	87	0	0	389	383	85	394	387	171
Stage 1	-	-	-	-	-	-	101	101	-	282	282	-
Stage 2	-	-	-	-	-	-	288	282	-	112	105	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1407	-	-	1509	-	-	570	550	974	566	547	873
Stage 1	-	-	-	-	-	-	905	811	-	725	678	-
Stage 2	-	-	-	-	-	-	720	678	-	893	808	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1406	-	-	1509	-	-	540	523	972	533	520	872
Mov Cap-2 Maneuver	-	-	-	-	-	-	540	523	-	533	520	-
Stage 1	-	-	-	-	-	-	899	805	-	719	650	-
Stage 2	-	-	-	-	-	-	678	650	-	867	802	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	1.9	10.2	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	720	1406	-	-	1509	-	-	635
HCM Lane V/C Ratio	0.039	0.006	-	-	0.037	-	-	0.025
HCM Control Delay (s)	10.2	7.6	0	-	7.5	0	-	10.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	105	2	33	73	2	98
Future Vol, veh/h	105	2	33	73	2	98
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	105	2	33	73	2	98

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	110	0	249	109
Stage 1	-	-	-	-	109	-
Stage 2	-	-	-	-	140	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1480	-	766	945
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	907	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1476	-	746	943
Mov Cap-2 Maneuver	-	-	-	-	746	-
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	885	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	938	-	-	1476	-
HCM Lane V/C Ratio	0.107	-	-	0.022	-
HCM Control Delay (s)	9.3	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

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	84	79	1	2	131	3	3	5	5	5	5	69
Future Vol, veh/h	84	79	1	2	131	3	3	5	5	5	5	69
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	84	79	1	2	131	3	3	5	5	5	5	69

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	136	0	0	81	0	0	424	389	81	392	388	136
Stage 1	-	-	-	-	-	-	249	249	-	139	139	-
Stage 2	-	-	-	-	-	-	175	140	-	253	249	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1448	-	-	1517	-	-	540	546	979	567	547	913
Stage 1	-	-	-	-	-	-	755	701	-	864	782	-
Stage 2	-	-	-	-	-	-	827	781	-	751	701	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1446	-	-	1516	-	-	471	511	978	532	511	911
Mov Cap-2 Maneuver	-	-	-	-	-	-	471	511	-	532	511	-
Stage 1	-	-	-	-	-	-	708	658	-	810	780	-
Stage 2	-	-	-	-	-	-	758	779	-	696	658	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.9	0.1	11	9.8
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	611	1446	-	-	1516	-	-	832
HCM Lane V/C Ratio	0.021	0.058	-	-	0.001	-	-	0.095
HCM Control Delay (s)	11	7.6	0	-	7.4	0	-	9.8
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.3

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	28	28	6	12	35	47	4	107	26	51	125	29
Future Vol, veh/h	28	28	6	12	35	47	4	107	26	51	125	29
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	28	6	12	35	47	4	107	26	51	125	29
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	8.3	8.1	8.3	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	45%	13%	25%
Vol Thru, %	78%	45%	37%	61%
Vol Right, %	19%	10%	50%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	137	62	94	205
LT Vol	4	28	12	51
Through Vol	107	28	35	125
RT Vol	26	6	47	29
Lane Flow Rate	137	62	94	205
Geometry Grp	1	1	1	1
Degree of Util (X)	0.168	0.084	0.118	0.252
Departure Headway (Hd)	4.421	4.853	4.51	4.419
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	811	738	794	814
Service Time	2.449	2.885	2.54	2.444
HCM Lane V/C Ratio	0.169	0.084	0.118	0.252
HCM Control Delay	8.3	8.3	8.1	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.3	0.4	1

Intersection	
Intersection Delay, s/veh	19.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	88	25	42	75	45	161	26	230	44	49	354	58
Future Vol, veh/h	88	25	42	75	45	161	26	230	44	49	354	58
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	88	25	42	75	45	161	26	230	44	49	354	58
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	13	15.5	16	25.8
HCM LOS	B	C	C	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	57%	27%	11%
Vol Thru, %	77%	16%	16%	77%
Vol Right, %	15%	27%	57%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	300	155	281	461
LT Vol	26	88	75	49
Through Vol	230	25	45	354
RT Vol	44	42	161	58
Lane Flow Rate	300	155	281	461
Geometry Grp	1	1	1	1
Degree of Util (X)	0.522	0.298	0.495	0.764
Departure Headway (Hd)	6.261	6.932	6.348	5.967
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	573	516	565	604
Service Time	4.324	5.009	4.411	4.021
HCM Lane V/C Ratio	0.524	0.3	0.497	0.763
HCM Control Delay	16	13	15.5	25.8
HCM Lane LOS	C	B	C	D
HCM 95th-tile Q	3	1.2	2.7	7

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	15	68	4	17	1	82	1	2	1	3	1
Future Vol, veh/h	1	15	68	4	17	1	82	1	2	1	3	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	15	68	4	17	1	82	1	2	1	3	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	18	0	0	84	0	0	80	78	50	79	112	18
Stage 1	-	-	-	-	-	-	52	52	-	26	26	-
Stage 2	-	-	-	-	-	-	28	26	-	53	86	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1599	-	-	1513	-	-	908	812	1018	910	778	1061
Stage 1	-	-	-	-	-	-	961	852	-	992	874	-
Stage 2	-	-	-	-	-	-	989	874	-	960	824	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1599	-	-	1512	-	-	901	808	1017	905	774	1061
Mov Cap-2 Maneuver	-	-	-	-	-	-	901	808	-	905	774	-
Stage 1	-	-	-	-	-	-	959	850	-	991	871	-
Stage 2	-	-	-	-	-	-	982	871	-	956	822	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.3	9.4	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	902	1599	-	-	1512	-	-	844
HCM Lane V/C Ratio	0.094	0.001	-	-	0.003	-	-	0.006
HCM Control Delay (s)	9.4	7.3	0	-	7.4	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	41	21	22	973	676	52
Future Vol, veh/h	41	21	22	973	676	52
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	21	22	973	676	52

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1696	679	731	0	-	0
Stage 1	679	-	-	-	-	-
Stage 2	1017	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	102	452	873	-	-	-
Stage 1	504	-	-	-	-	-
Stage 2	349	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	96	451	871	-	-	-
Mov Cap-2 Maneuver	280	-	-	-	-	-
Stage 1	475	-	-	-	-	-
Stage 2	348	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.9	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	871	-	321	-	-
HCM Lane V/C Ratio	0.025	-	0.193	-	-
HCM Control Delay (s)	9.2	0	18.9	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	285	22	375	512	0	597
Future Volume (veh/h)	285	22	375	512	0	597
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	285	22	375	0	0	597
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	358	28	1412	0	0	1412
Arrive On Green	0.22	0.22	0.40	0.00	0.00	0.40
Sat Flow, veh/h	1628	126	3725	0	0	3725
Grp Volume(v), veh/h	308	0	375	0	0	597
Grp Sat Flow(s),veh/h/ln	1759	0	1770	0	0	1770
Q Serve(g_s), s	3.3	0.0	1.4	0.0	0.0	2.4
Cycle Q Clear(g_c), s	3.3	0.0	1.4	0.0	0.0	2.4
Prop In Lane	0.93	0.07		0.00	0.00	
Lane Grp Cap(c), veh/h	387	0	1412	0	0	1412
V/C Ratio(X)	0.80	0.00	0.27	0.00	0.00	0.42
Avail Cap(c_a), veh/h	1162	0	3507	0	0	3507
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	7.3	0.0	4.0	0.0	0.0	4.3
Incr Delay (d2), s/veh	1.4	0.0	0.1	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.7	0.0	0.0	1.2
LnGrp Delay(d),s/veh	8.7	0.0	4.1	0.0	0.0	4.5
LnGrp LOS	A		A			A
Approach Vol, veh/h	308		375			597
Approach Delay, s/veh	8.7		4.1			4.5
Approach LOS	A		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		12.3		7.3		12.3		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		19.5		13.0		19.5		
Max Q Clear Time (g_c+I1), s		3.4		5.3		4.4		
Green Ext Time (p_c), s		2.5		0.1		3.5		

Intersection Summary	
HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	314	278	14	410	84	175	170	13	68	320	76
Future Volume (veh/h)	47	314	278	14	410	84	175	170	13	68	320	76
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.91	0.99		0.91	1.00		0.96	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	47	314	278	14	410	84	175	170	13	68	320	76
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	979	922	54	1052	209	218	212	361	83	391	392
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.24	0.24	0.24	0.26	0.26	0.26
Sat Flow, veh/h	289	2575	1441	36	2766	550	921	895	1527	324	1523	1530
Grp Volume(v), veh/h	163	198	278	273	0	235	345	0	13	388	0	76
Grp Sat Flow(s),veh/h/ln	1253	1610	1441	1816	0	1537	1817	0	1527	1847	0	1530
Q Serve(g_s), s	1.7	8.2	8.7	0.0	0.0	10.6	16.9	0.0	0.6	18.7	0.0	3.7
Cycle Q Clear(g_c), s	12.3	8.2	8.7	10.1	0.0	10.6	16.9	0.0	0.6	18.7	0.0	3.7
Prop In Lane	0.29		1.00	0.05		0.36	0.51		1.00	0.18		1.00
Lane Grp Cap(c), veh/h	526	612	922	730	0	584	430	0	361	474	0	392
V/C Ratio(X)	0.31	0.32	0.30	0.37	0.00	0.40	0.80	0.00	0.04	0.82	0.00	0.19
Avail Cap(c_a), veh/h	526	612	922	730	0	584	748	0	629	839	0	695
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.6	20.7	8.6	21.3	0.0	21.5	34.1	0.0	27.8	33.1	0.0	27.5
Incr Delay (d2), s/veh	1.5	1.4	0.8	1.5	0.0	2.0	3.5	0.0	0.0	3.6	0.0	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	3.4	3.9	5.8	5.5	0.0	4.8	9.0	0.0	0.3	10.0	0.0	1.6
LnGrp Delay(d),s/veh	22.1	22.1	9.5	22.8	0.0	23.5	37.6	0.0	27.9	36.7	0.0	27.8
LnGrp LOS	C	C	A	C		C	D		C	D		C
Approach Vol, veh/h		639			508			358			464	
Approach Delay, s/veh		16.6			23.1			37.3			35.2	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		40.0		26.4		40.0		28.3
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		36.0		39.0		36.0		43.0
Max Q Clear Time (g_c+I1), s		14.3		18.9		12.6		20.7
Green Ext Time (p_c), s		3.4		2.2		3.3		2.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.4
HCM 2010 LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	382	303	385	608	390	299
Future Volume (veh/h)	382	303	385	608	390	299
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	382	303	385	608	390	299
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	409	1291	803	1044	428	747
Arrive On Green	0.23	0.69	0.43	0.43	0.24	0.24
Sat Flow, veh/h	1774	1863	1863	1535	1774	1583
Grp Volume(v), veh/h	382	303	385	608	390	299
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1535	1774	1583
Q Serve(g_s), s	27.0	7.6	19.0	27.5	27.4	15.8
Cycle Q Clear(g_c), s	27.0	7.6	19.0	27.5	27.4	15.8
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	409	1291	803	1044	428	747
V/C Ratio(X)	0.93	0.23	0.48	0.58	0.91	0.40
Avail Cap(c_a), veh/h	582	1291	803	1044	593	894
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	48.3	7.2	26.1	11.4	47.3	22.0
Incr Delay (d2), s/veh	15.1	0.4	2.0	2.4	13.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.0	4.0	10.2	21.0	15.1	16.3
LnGrp Delay(d),s/veh	63.4	7.6	28.2	13.7	61.0	22.3
LnGrp LOS	E	A	C	B	E	C
Approach Vol, veh/h		685	993		689	
Approach Delay, s/veh		38.8	19.3		44.2	
Approach LOS		D	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		93.0		35.1	33.5	59.5		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 89		* 43	42.0	* 43		
Max Q Clear Time (g_c+I1), s		9.6		29.4	29.0	29.5		
Green Ext Time (p_c), s		1.2		1.5	0.5	2.6		

Intersection Summary	
HCM 2010 Ctrl Delay	32.2
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	14	3	42	19	199	2	907	61	132	686	45
Future Volume (veh/h)	57	14	3	42	19	199	2	907	61	132	686	45
Number	7	4	14	3	8	18	1	6	16	5	2	12
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		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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	57	14	3	42	19	199	2	907	61	132	686	45
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	117	25	4	153	61	916	26	1065	72	837	2782	182
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.32	0.32	0.32	0.47	0.82	0.82
Sat Flow, veh/h	658	231	38	1000	562	1546	1	3288	221	1774	3372	221
Grp Volume(v), veh/h	74	0	0	61	0	199	514	0	456	132	360	371
Grp Sat Flow(s),veh/h/ln	926	0	0	1562	0	1546	1861	0	1650	1774	1770	1824
Q Serve(g_s), s	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.1	5.9	6.3	6.3
Cycle Q Clear(g_c), s	12.1	0.0	0.0	4.9	0.0	0.0	36.1	0.0	36.1	5.9	6.3	6.3
Prop In Lane	0.77		0.04	0.69		1.00	0.00		0.13	1.00		0.12
Lane Grp Cap(c), veh/h	147	0	0	214	0	916	628	0	534	837	1460	1504
V/C Ratio(X)	0.50	0.00	0.00	0.28	0.00	0.22	0.82	0.00	0.85	0.16	0.25	0.25
Avail Cap(c_a), veh/h	282	0	0	377	0	1083	993	0	859	837	1460	1504
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	0.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	62.4	0.0	0.0	57.7	0.0	14.0	44.2	0.0	44.2	21.1	2.7	2.7
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.5	0.0	0.1	11.3	0.0	15.8	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.0	2.2	0.0	3.7	20.5	0.0	18.8	2.9	3.1	3.2
LnGrp Delay(d),s/veh	64.4	0.0	0.0	58.2	0.0	14.1	55.5	0.0	60.0	21.1	3.0	3.0
LnGrp LOS	E			E		B	E		E	C	A	A
Approach Vol, veh/h		74			260			970			863	
Approach Delay, s/veh		64.4			24.5			57.6			5.8	
Approach LOS		E			C			E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		120.1		19.9	70.7	49.4		19.9
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		100.4		30.4	23.9	* 73		30.4
Max Q Clear Time (g_c+I1), s		8.3		14.1	7.9	38.1		6.9
Green Ext Time (p_c), s		5.4		0.3	0.1	7.2		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	33.2
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	564	774	1360	319	260	559
Future Volume (veh/h)	564	774	1360	319	260	559
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	564	774	1360	319	260	559
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	682	3466	1733	406	355	1109
Arrive On Green	0.20	0.68	0.42	0.42	0.20	0.20
Sat Flow, veh/h	3442	5253	4254	957	1774	2787
Grp Volume(v), veh/h	564	774	1128	551	260	559
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1653	1774	1393
Q Serve(g_s), s	10.6	3.9	19.4	19.4	9.3	10.2
Cycle Q Clear(g_c), s	10.6	3.9	19.4	19.4	9.3	10.2
Prop In Lane	1.00			0.58	1.00	1.00
Lane Grp Cap(c), veh/h	682	3466	1438	701	355	1109
V/C Ratio(X)	0.83	0.22	0.78	0.79	0.73	0.50
Avail Cap(c_a), veh/h	816	3466	1438	701	421	1213
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	25.9	4.0	16.8	16.8	25.3	15.3
Incr Delay (d2), s/veh	6.0	0.1	4.4	8.7	5.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	1.8	9.8	10.4	5.1	3.9
LnGrp Delay(d),s/veh	32.0	4.2	21.1	25.5	30.7	15.7
LnGrp LOS	C	A	C	C	C	B
Approach Vol, veh/h		1338	1679		819	
Approach Delay, s/veh		15.9	22.5		20.4	
Approach LOS		B	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	17.4	32.6				50.0		17.5
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	26.0				46.0		16.0
Max Q Clear Time (g_c+I1), s	12.6	21.4				5.9		12.2
Green Ext Time (p_c), s	0.8	3.6				6.1		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	19.8
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	471	23	99	66	29	48	185	925	67	21	662	335
Future Volume (veh/h)	471	23	99	66	29	48	185	925	67	21	662	335
Number	3	8	18	7	4	14	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		0.97	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	487	0	99	66	29	48	185	925	67	21	662	335
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	608	0	270	158	56	92	124	1960	996	31	1775	1045
Arrive On Green	0.17	0.00	0.17	0.09	0.09	0.09	0.07	0.55	0.55	0.02	0.50	0.50
Sat Flow, veh/h	3548	0	1572	1774	626	1037	1774	3539	1544	1774	3539	1543
Grp Volume(v), veh/h	487	0	99	66	0	77	185	925	67	21	662	335
Grp Sat Flow(s),veh/h/ln	1774	0	1572	1774	0	1663	1774	1770	1544	1774	1770	1543
Q Serve(g_s), s	13.2	0.0	5.6	3.5	0.0	4.4	7.0	15.8	1.6	1.2	11.5	9.1
Cycle Q Clear(g_c), s	13.2	0.0	5.6	3.5	0.0	4.4	7.0	15.8	1.6	1.2	11.5	9.1
Prop In Lane	1.00		1.00	1.00		0.62	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	608	0	270	158	0	148	124	1960	996	31	1775	1045
V/C Ratio(X)	0.80	0.00	0.37	0.42	0.00	0.52	1.49	0.47	0.07	0.67	0.37	0.32
Avail Cap(c_a), veh/h	993	0	440	479	0	449	124	1960	996	71	1775	1045
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	0.90	0.90	0.90	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	0.0	36.6	43.1	0.0	43.5	46.5	13.5	6.7	48.8	15.3	6.8
Incr Delay (d2), s/veh	1.9	0.0	0.6	1.3	0.0	2.1	254.6	0.7	0.1	8.8	0.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	0.0	2.5	1.8	0.0	2.1	12.2	7.9	0.9	0.7	5.8	6.1
LnGrp Delay(d),s/veh	41.6	0.0	37.2	44.4	0.0	45.6	301.1	14.2	6.8	57.6	15.9	7.6
LnGrp LOS	D		D	D		D	F	B	A	E	B	A
Approach Vol, veh/h		586			143			1177			1018	
Approach Delay, s/veh		40.9			45.0			58.9			14.0	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.8	60.0		13.1	11.0	54.7		21.1
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.0	4.6		4.0
Max Green Setting (Gmax), s	4.0	24.2		* 27	7.0	21.2		28.0
Max Q Clear Time (g_c+I1), s	3.2	17.8		6.4	9.0	13.5		15.2
Green Ext Time (p_c), s	0.0	4.6		0.4	0.0	5.1		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	39.0
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	29.2
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	346	87	182	239	21	88	147	220	39	123	28
Future Vol, veh/h	45	346	87	182	239	21	88	147	220	39	123	28
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	45	346	87	182	239	21	88	147	220	39	123	28
Number of Lanes	1	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	3
HCM Control Delay	40	25.8	23.5	23.7
HCM LOS	E	D	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1
Vol Left, %	37%	0%	100%	0%	0%	100%	0%	21%
Vol Thru, %	63%	0%	0%	100%	0%	0%	92%	65%
Vol Right, %	0%	100%	0%	0%	100%	0%	8%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	235	220	45	346	87	182	260	190
LT Vol	88	0	45	0	0	182	0	39
Through Vol	147	0	0	346	0	0	239	123
RT Vol	0	220	0	0	87	0	21	28
Lane Flow Rate	235	220	45	346	87	182	260	190
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.616	0.521	0.12	0.875	0.202	0.495	0.665	0.53
Departure Headway (Hd)	9.443	8.526	9.622	9.103	8.377	9.787	9.204	10.045
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	381	422	372	398	427	368	393	357
Service Time	7.229	6.31	7.403	6.883	6.156	7.575	6.992	7.84
HCM Lane V/C Ratio	0.617	0.521	0.121	0.869	0.204	0.495	0.662	0.532
HCM Control Delay	26.4	20.3	13.7	50.1	13.3	21.9	28.6	23.7
HCM Lane LOS	D	C	B	F	B	C	D	C
HCM 95th-tile Q	4	2.9	0.4	8.7	0.7	2.6	4.6	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	132	32	138	119	213	48	1216	102	152	1363	21
Future Volume (veh/h)	23	132	32	138	119	213	48	1216	102	152	1363	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	140	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	23	132	0	138	119	213	48	1216	102	152	1363	0
Adj No. of Lanes	0	2	0	0	2	0	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	72	490	0	188	141	307	62	2727	167	257	2356	1054
Arrive On Green	0.23	0.23	0.00	0.23	0.23	0.23	0.03	0.56	0.56	0.14	0.67	0.00
Sat Flow, veh/h	193	2182	0	671	603	1313	1774	4776	400	1774	3539	1583
Grp Volume(v), veh/h	63	92	0	239	0	231	48	863	455	152	1363	0
Grp Sat Flow(s),veh/h/ln	680	1610	0	1161	0	1426	1774	1695	1786	1774	1770	1583
Q Serve(g_s), s	2.9	8.4	0.0	29.1	0.0	27.0	4.9	27.6	27.6	14.6	38.1	0.0
Cycle Q Clear(g_c), s	29.9	8.4	0.0	37.6	0.0	27.0	4.9	27.6	27.6	14.6	38.1	0.0
Prop In Lane	0.37		0.00	0.58		0.92	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	186	376	0	303	0	333	62	1884	1003	257	2356	1054
V/C Ratio(X)	0.34	0.24	0.00	0.79	0.00	0.69	0.78	0.46	0.45	0.59	0.58	0.00
Avail Cap(c_a), veh/h	310	514	0	427	0	455	137	1884	992	332	2356	1054
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	62.3	56.6	0.0	71.9	0.0	63.7	87.0	30.0	29.4	72.7	16.5	0.0
Incr Delay (d2), s/veh	1.1	0.3	0.0	6.4	0.0	2.8	18.9	0.8	1.5	2.2	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.6	28.5	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.8	0.0	12.2	0.0	10.9	2.7	34.2	34.3	7.3	18.9	0.0
LnGrp Delay(d),s/veh	63.4	57.0	0.0	78.3	0.0	66.5	105.9	63.5	59.4	74.9	17.6	0.0
LnGrp LOS	E	E		E		E	F	E	E	E	B	
Approach Vol, veh/h		155			470			1366			1515	
Approach Delay, s/veh		59.6			72.5			63.6			23.3	
Approach LOS		E			E			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	30.3	105.0		46.5	10.3	125.0		46.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	34.0	101.0		58.0	14.0	121.0		58.0
Max Q Clear Time (g_c+I1), s	16.6	29.6		31.9	6.9	40.1		39.6
Green Ext Time (p_c), s	0.4	13.4		0.9	0.0	16.5		2.9

Intersection Summary	
HCM 2010 Ctrl Delay	47.2
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	353	40	518	282	295	71	1032	484	277	1241	64
Future Volume (veh/h)	142	353	40	518	282	295	71	1032	484	277	1241	64
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		0.96	1.00		0.97	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	142	353	40	518	282	295	71	1032	484	277	1241	64
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	171	432	49	598	396	483	91	1642	1000	341	1811	963
Arrive On Green	0.10	0.14	0.14	0.17	0.21	0.21	0.05	0.46	0.46	0.10	0.51	0.51
Sat Flow, veh/h	1774	3192	359	3442	1863	1531	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	142	194	199	518	282	295	71	1032	484	277	1241	64
Grp Sat Flow(s),veh/h/ln	1774	1770	1781	1721	1863	1531	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	9.8	13.3	13.6	18.3	17.6	5.7	4.9	27.6	9.4	9.9	33.0	2.1
Cycle Q Clear(g_c), s	9.8	13.3	13.6	18.3	17.6	5.7	4.9	27.6	9.4	9.9	33.0	2.1
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	171	239	241	598	396	483	91	1642	1000	341	1811	963
V/C Ratio(X)	0.83	0.81	0.82	0.87	0.71	0.61	0.78	0.63	0.48	0.81	0.69	0.07
Avail Cap(c_a), veh/h	284	325	328	826	492	561	170	1642	1000	495	1811	963
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	55.5	52.5	52.6	50.2	45.7	21.4	58.6	25.4	4.1	55.2	22.9	10.0
Incr Delay (d2), s/veh	10.0	10.6	11.7	7.2	3.6	1.5	13.5	1.8	1.7	6.5	2.1	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	5.3	7.2	7.5	9.3	9.4	8.1	2.8	13.9	4.4	5.0	16.6	0.9
LnGrp Delay(d),s/veh	65.5	63.1	64.3	57.5	49.3	22.9	72.1	27.2	5.8	61.7	25.1	10.1
LnGrp LOS	E	E	E	E	D	C	E	C	A	E	C	B
Approach Vol, veh/h		535			1095			1587			1582	
Approach Delay, s/veh		64.2			46.1			22.7			30.9	
Approach LOS		E			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	16.4	62.0	25.7	20.9	10.4	68.0	16.0	30.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	58.0	30.0	23.0	12.0	64.0	20.0	33.0
Max Q Clear Time (g_c+I1), s	11.9	29.6	20.3	15.6	6.9	35.0	11.8	19.6
Green Ext Time (p_c), s	0.5	11.3	1.4	1.3	0.1	11.5	0.2	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	35.3
HCM 2010 LOS	D

Notes

User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	510	245	2042	0	0	766
Future Volume (veh/h)	510	245	2042	0	0	766
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	510	245	2042	0	0	766
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	672	544	2481	0	0	2481
Arrive On Green	0.20	0.20	0.70	0.00	0.00	0.70
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	510	245	2042	0	0	766
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	11.2	6.2	32.6	0.0	0.0	6.6
Cycle Q Clear(g_c), s	11.2	6.2	32.6	0.0	0.0	6.6
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	672	544	2481	0	0	2481
V/C Ratio(X)	0.76	0.45	0.82	0.00	0.00	0.31
Avail Cap(c_a), veh/h	1076	871	2481	0	0	2481
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.54	0.00	0.00	1.00
Uniform Delay (d), s/veh	30.4	28.4	8.4	0.0	0.0	4.6
Incr Delay (d2), s/veh	1.8	0.6	1.8	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	2.4	16.2	0.0	0.0	3.3
LnGrp Delay(d),s/veh	32.2	29.0	10.2	0.0	0.0	4.9
LnGrp LOS	C	C	B			A
Approach Vol, veh/h	755		2042			766
Approach Delay, s/veh	31.2		10.2			4.9
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		60.2				60.2		19.8
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		46.7				46.7		25.0
Max Q Clear Time (g_c+I1), s		34.6				8.6		13.2
Green Ext Time (p_c), s		10.2				6.3		2.4

Intersection Summary	
HCM 2010 Ctrl Delay	13.5
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1352	403	0	1015	884	0
Future Volume (veh/h)	1352	403	0	1015	884	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1352	403	0	1015	884	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1485	683	0	1649	1649	0
Arrive On Green	0.43	0.43	0.00	0.47	0.93	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1352	403	0	1015	884	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	29.4	15.5	0.0	17.2	2.7	0.0
Cycle Q Clear(g_c), s	29.4	15.5	0.0	17.2	2.7	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1485	683	0	1649	1649	0
V/C Ratio(X)	0.91	0.59	0.00	0.62	0.54	0.00
Avail Cap(c_a), veh/h	1717	790	0	1649	1649	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.89	0.00
Uniform Delay (d), s/veh	21.3	17.3	0.0	16.0	1.5	0.0
Incr Delay (d2), s/veh	6.5	0.4	0.0	1.7	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.2	6.8	0.0	8.7	1.2	0.0
LnGrp Delay(d),s/veh	27.7	17.7	0.0	17.7	2.7	0.0
LnGrp LOS	C	B		B	A	
Approach Vol, veh/h	1755			1015	884	
Approach Delay, s/veh	25.4			17.7	2.7	
Approach LOS	C			B	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		41.4		38.6		41.4		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		31.9		39.9		31.9		
Max Q Clear Time (g_c+I1), s		19.2		31.4		4.7		
Green Ext Time (p_c), s		4.2		3.1		4.6		

Intersection Summary	
HCM 2010 Ctrl Delay	17.8
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	12.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	412	63	48	272	22	43	63	62	41	74	29
Future Vol, veh/h	59	412	63	48	272	22	43	63	62	41	74	29
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	412	63	48	272	22	43	63	62	41	74	29
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	13.6	11.9	11.8	11.7
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	26%	22%	0%	26%	0%	28%
Vol Thru, %	38%	78%	77%	74%	86%	51%
Vol Right, %	37%	0%	23%	0%	14%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	168	265	269	184	158	144
LT Vol	43	59	0	48	0	41
Through Vol	63	206	206	136	136	74
RT Vol	62	0	63	0	22	29
Lane Flow Rate	168	265	269	184	158	144
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.29	0.454	0.44	0.329	0.272	0.255
Departure Headway (Hd)	6.215	6.167	5.887	6.431	6.199	6.381
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	575	583	611	558	577	560
Service Time	4.289	3.927	3.647	4.198	3.966	4.458
HCM Lane V/C Ratio	0.292	0.455	0.44	0.33	0.274	0.257
HCM Control Delay	11.8	14	13.2	12.4	11.3	11.7
HCM Lane LOS	B	B	B	B	B	B
HCM 95th-tile Q	1.2	2.4	2.2	1.4	1.1	1

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	81	631	18	20	597	48	5	2	17	30	0	77
Future Vol, veh/h	81	631	18	20	597	48	5	2	17	30	0	77
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	81	631	18	20	597	48	5	2	17	30	0	77

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	676	0	0	665	0	0	1157	1534	366	1196	1519	354
Stage 1	-	-	-	-	-	-	818	818	-	692	692	-
Stage 2	-	-	-	-	-	-	339	716	-	504	827	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	911	-	-	920	-	-	151	115	631	142	118	642
Stage 1	-	-	-	-	-	-	336	388	-	400	443	-
Stage 2	-	-	-	-	-	-	649	432	-	518	384	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	887	-	-	908	-	-	113	91	610	112	94	625
Mov Cap-2 Maneuver	-	-	-	-	-	-	113	91	-	112	94	-
Stage 1	-	-	-	-	-	-	284	328	-	334	416	-
Stage 2	-	-	-	-	-	-	549	406	-	420	325	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.4	20.6	26.3
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	255	887	-	-	908	-	-	274
HCM Lane V/C Ratio	0.094	0.091	-	-	0.022	-	-	0.391
HCM Control Delay (s)	20.6	9.5	0.5	-	9.1	0.1	-	26.3
HCM Lane LOS	C	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.3	0.3	-	-	0.1	-	-	1.8

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	74	11	8	90	2	14	2	14	5	0	1
Future Vol, veh/h	1	74	11	8	90	2	14	2	14	5	0	1
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	74	11	8	90	2	14	2	14	5	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	96	0	0	86	0	0	192	195	82	202	199	96
Stage 1	-	-	-	-	-	-	83	83	-	111	111	-
Stage 2	-	-	-	-	-	-	109	112	-	91	88	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1498	-	-	1510	-	-	768	700	978	756	697	960
Stage 1	-	-	-	-	-	-	925	826	-	894	804	-
Stage 2	-	-	-	-	-	-	896	803	-	916	822	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1493	-	-	1509	-	-	762	692	976	736	689	956
Mov Cap-2 Maneuver	-	-	-	-	-	-	762	692	-	736	689	-
Stage 1	-	-	-	-	-	-	923	824	-	890	797	-
Stage 2	-	-	-	-	-	-	889	796	-	899	820	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.6	9.4	9.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	843	1493	-	-	1509	-	-	765
HCM Lane V/C Ratio	0.036	0.001	-	-	0.005	-	-	0.008
HCM Control Delay (s)	9.4	7.4	0	-	7.4	0	-	9.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	40	6	9	57	9	16	14	18	5	31	7
Future Vol, veh/h	7	40	6	9	57	9	16	14	18	5	31	7
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	40	6	9	57	9	16	14	18	5	31	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	68	0	0	48	0	0	159	145	46	156	144	65
Stage 1	-	-	-	-	-	-	59	59	-	82	82	-
Stage 2	-	-	-	-	-	-	100	86	-	74	62	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1533	-	-	1559	-	-	807	746	1023	810	747	999
Stage 1	-	-	-	-	-	-	953	846	-	926	827	-
Stage 2	-	-	-	-	-	-	906	824	-	935	843	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1530	-	-	1556	-	-	767	735	1020	776	736	997
Mov Cap-2 Maneuver	-	-	-	-	-	-	767	735	-	776	736	-
Stage 1	-	-	-	-	-	-	946	840	-	920	820	-
Stage 2	-	-	-	-	-	-	860	817	-	898	837	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.9	9.6	9.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	834	1530	-	-	1556	-	-	774
HCM Lane V/C Ratio	0.058	0.005	-	-	0.006	-	-	0.056
HCM Control Delay (s)	9.6	7.4	0	-	7.3	0	-	9.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	46	2	13	55	2	7	11	13	1	3	5
Future Vol, veh/h	1	46	2	13	55	2	7	11	13	1	3	5
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	46	2	13	55	2	7	11	13	1	3	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	58	0	0	48	0	0	136	133	49	146	133	58
Stage 1	-	-	-	-	-	-	49	49	-	83	83	-
Stage 2	-	-	-	-	-	-	87	84	-	63	50	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1546	-	-	1559	-	-	835	758	1020	823	758	1008
Stage 1	-	-	-	-	-	-	964	854	-	925	826	-
Stage 2	-	-	-	-	-	-	921	825	-	948	853	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1545	-	-	1559	-	-	822	750	1018	795	750	1006
Mov Cap-2 Maneuver	-	-	-	-	-	-	822	750	-	795	750	-
Stage 1	-	-	-	-	-	-	963	853	-	923	818	-
Stage 2	-	-	-	-	-	-	904	817	-	921	852	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.4	9.3	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	862	1545	-	-	1559	-	-	880
HCM Lane V/C Ratio	0.036	0.001	-	-	0.008	-	-	0.01
HCM Control Delay (s)	9.3	7.3	0	-	7.3	0	-	9.1
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	44	0	18	42	3	36
Future Vol, veh/h	44	0	18	42	3	36
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	0	18	42	3	36

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	47	0	126	47
Stage 1	-	-	-	-	47	-
Stage 2	-	-	-	-	79	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1560	-	869	1022
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	944	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1556	-	856	1019
Mov Cap-2 Maneuver	-	-	-	-	856	-
Stage 1	-	-	-	-	973	-
Stage 2	-	-	-	-	932	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1004	-	-	1556	-
HCM Lane V/C Ratio	0.039	-	-	0.012	-
HCM Control Delay (s)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	36	50	8	5	65	4	2	4	3	2	3	35
Future Vol, veh/h	36	50	8	5	65	4	2	4	3	2	3	35
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	50	8	5	65	4	2	4	3	2	3	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	71	0	0	59	0	0	224	208	55	209	210	70
Stage 1	-	-	-	-	-	-	127	127	-	79	79	-
Stage 2	-	-	-	-	-	-	97	81	-	130	131	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1529	-	-	1545	-	-	732	689	1012	748	687	993
Stage 1	-	-	-	-	-	-	877	791	-	930	829	-
Stage 2	-	-	-	-	-	-	910	828	-	874	788	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1526	-	-	1544	-	-	688	668	1011	726	666	991
Mov Cap-2 Maneuver	-	-	-	-	-	-	688	668	-	726	666	-
Stage 1	-	-	-	-	-	-	855	771	-	906	825	-
Stage 2	-	-	-	-	-	-	871	824	-	846	768	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.8	0.5	9.8	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	759	1526	-	-	1544	-	-	939
HCM Lane V/C Ratio	0.012	0.024	-	-	0.003	-	-	0.043
HCM Control Delay (s)	9.8	7.4	0	-	7.3	0	-	9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	18	6	16	38	49	5	136	10	73	170	43
Future Vol, veh/h	31	18	6	16	38	49	5	136	10	73	170	43
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	18	6	16	38	49	5	136	10	73	170	43
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	8.6	8.5	8.8	9.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	56%	16%	26%
Vol Thru, %	90%	33%	37%	59%
Vol Right, %	7%	11%	48%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	151	55	103	286
LT Vol	5	31	16	73
Through Vol	136	18	38	170
RT Vol	10	6	49	43
Lane Flow Rate	151	55	103	286
Geometry Grp	1	1	1	1
Degree of Util (X)	0.193	0.078	0.136	0.354
Departure Headway (Hd)	4.607	5.113	4.748	4.456
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	778	698	753	807
Service Time	2.644	3.162	2.791	2.488
HCM Lane V/C Ratio	0.194	0.079	0.137	0.354
HCM Control Delay	8.8	8.6	8.5	9.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.3	0.5	1.6

Intersection	
Intersection Delay, s/veh	18.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	89	42	32	18	27	94	13	207	37	87	363	92
Future Vol, veh/h	89	42	32	18	27	94	13	207	37	87	363	92
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	89	42	32	18	27	94	13	207	37	87	363	92
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	12	11	12.5	24.9
HCM LOS	B	B	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	55%	13%	16%
Vol Thru, %	81%	26%	19%	67%
Vol Right, %	14%	20%	68%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	257	163	139	542
LT Vol	13	89	18	87
Through Vol	207	42	27	363
RT Vol	37	32	94	92
Lane Flow Rate	257	163	139	542
Geometry Grp	1	1	1	1
Degree of Util (X)	0.402	0.287	0.233	0.787
Departure Headway (Hd)	5.638	6.335	6.041	5.229
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	635	562	589	688
Service Time	3.714	4.424	4.133	3.289
HCM Lane V/C Ratio	0.405	0.29	0.236	0.788
HCM Control Delay	12.5	12	11	24.9
HCM Lane LOS	B	B	B	C
HCM 95th-tile Q	1.9	1.2	0.9	7.8

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	11	74	1	11	0	117	3	4	0	0	0
Future Vol, veh/h	2	11	74	1	11	0	117	3	4	0	0	0
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	11	74	1	11	0	117	3	4	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	11	0	0	86	0	0	66	66	49	69	103	11
Stage 1	-	-	-	-	-	-	53	53	-	13	13	-
Stage 2	-	-	-	-	-	-	13	13	-	56	90	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1608	-	-	1510	-	-	927	825	1020	923	787	1070
Stage 1	-	-	-	-	-	-	960	851	-	1007	885	-
Stage 2	-	-	-	-	-	-	1007	885	-	956	820	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1608	-	-	1509	-	-	925	823	1019	916	785	1070
Mov Cap-2 Maneuver	-	-	-	-	-	-	925	823	-	916	785	-
Stage 1	-	-	-	-	-	-	958	849	-	1006	884	-
Stage 2	-	-	-	-	-	-	1006	884	-	948	818	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.6	9.5	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	925	1608	-	-	1509	-	-	-
HCM Lane V/C Ratio	0.134	0.001	-	-	0.001	-	-	-
HCM Control Delay (s)	9.5	7.2	0	-	7.4	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	43	20	9	958	633	119
Future Vol, veh/h	43	20	9	958	633	119
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	20	9	958	633	119

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1612	636	755	0	-	0
Stage 1	636	-	-	-	-	-
Stage 2	976	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	115	478	855	-	-	-
Stage 1	527	-	-	-	-	-
Stage 2	365	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	112	477	853	-	-	-
Mov Cap-2 Maneuver	299	-	-	-	-	-
Stage 1	514	-	-	-	-	-
Stage 2	364	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	853	-	339	-	-
HCM Lane V/C Ratio	0.011	-	0.186	-	-
HCM Control Delay (s)	9.3	0	18	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.7	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	444	12	366	425	0	856
Future Volume (veh/h)	444	12	366	425	0	856
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	444	12	366	0	0	856
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	529	14	1471	0	0	1471
Arrive On Green	0.31	0.31	0.42	0.00	0.00	0.42
Sat Flow, veh/h	1718	46	3725	0	0	3725
Grp Volume(v), veh/h	457	0	366	0	0	856
Grp Sat Flow(s),veh/h/ln	1769	0	1770	0	0	1770
Q Serve(g_s), s	6.5	0.0	1.8	0.0	0.0	5.1
Cycle Q Clear(g_c), s	6.5	0.0	1.8	0.0	0.0	5.1
Prop In Lane	0.97	0.03		0.00	0.00	
Lane Grp Cap(c), veh/h	545	0	1471	0	0	1471
V/C Ratio(X)	0.84	0.00	0.25	0.00	0.00	0.58
Avail Cap(c_a), veh/h	978	0	2282	0	0	2282
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	8.8	0.0	5.2	0.0	0.0	6.1
Incr Delay (d2), s/veh	1.4	0.0	0.1	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.9	0.0	0.0	2.5
LnGrp Delay(d),s/veh	10.1	0.0	5.3	0.0	0.0	6.6
LnGrp LOS	B		A			A
Approach Vol, veh/h	457		366			856
Approach Delay, s/veh	10.1		5.3			6.6
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		15.8		11.4		15.8		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		17.5		15.0		17.5		
Max Q Clear Time (g_c+I1), s		3.8		8.5		7.1		
Green Ext Time (p_c), s		2.3		0.1		4.2		

Intersection Summary	
HCM 2010 Ctrl Delay	7.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	363	490	17	258	69	149	204	17	65	340	15
Future Volume (veh/h)	37	363	490	17	258	69	149	204	17	65	340	15
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.91	0.99		0.91	1.00		0.97	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	37	363	490	17	258	69	149	204	17	65	340	15
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	1125	907	71	912	235	186	254	369	78	410	405
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.24	0.24	0.24	0.26	0.26	0.26
Sat Flow, veh/h	216	3079	1437	79	2497	643	770	1054	1528	297	1551	1531
Grp Volume(v), veh/h	206	194	490	182	0	162	353	0	17	405	0	15
Grp Sat Flow(s),veh/h/ln	1685	1610	1437	1711	0	1508	1824	0	1528	1848	0	1531
Q Serve(g_s), s	0.0	8.1	18.9	0.0	0.0	7.1	16.9	0.0	0.8	19.2	0.0	0.7
Cycle Q Clear(g_c), s	7.3	8.1	18.9	6.4	0.0	7.1	16.9	0.0	0.8	19.2	0.0	0.7
Prop In Lane	0.18		1.00	0.09		0.43	0.42		1.00	0.16		1.00
Lane Grp Cap(c), veh/h	661	588	907	667	0	551	440	0	369	488	0	405
V/C Ratio(X)	0.31	0.33	0.54	0.27	0.00	0.29	0.80	0.00	0.05	0.83	0.00	0.04
Avail Cap(c_a), veh/h	661	588	907	667	0	551	784	0	657	874	0	724
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.1	21.3	10.9	20.8	0.0	21.0	33.2	0.0	27.1	32.2	0.0	25.4
Incr Delay (d2), s/veh	1.2	1.5	2.3	1.0	0.0	1.4	3.4	0.0	0.1	3.7	0.0	0.0
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	4.0	3.9	12.7	3.5	0.0	3.2	9.0	0.0	0.3	10.3	0.0	0.3
LnGrp Delay(d),s/veh	22.3	22.8	13.2	21.8	0.0	22.3	36.7	0.0	27.1	35.9	0.0	25.5
LnGrp LOS	C	C	B	C		C	D		C	D		C
Approach Vol, veh/h		890			344			370			420	
Approach Delay, s/veh		17.4			22.0			36.2			35.6	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		38.0		26.4		38.0		28.6
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		34.0		40.0		34.0		44.0
Max Q Clear Time (g_c+I1), s		20.9		18.9		9.1		21.2
Green Ext Time (p_c), s		3.9		2.3		2.2		2.7

Intersection Summary	
HCM 2010 Ctrl Delay	25.4
HCM 2010 LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	411	374	213	552	469	248
Future Volume (veh/h)	411	374	213	552	469	248
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	411	374	213	552	469	248
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	445	1211	687	1017	506	849
Arrive On Green	0.25	0.65	0.37	0.37	0.29	0.29
Sat Flow, veh/h	1774	1863	1863	1533	1774	1583
Grp Volume(v), veh/h	411	374	213	552	469	248
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1533	1774	1583
Q Serve(g_s), s	29.5	11.5	10.6	25.4	33.5	11.2
Cycle Q Clear(g_c), s	29.5	11.5	10.6	25.4	33.5	11.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	445	1211	687	1017	506	849
V/C Ratio(X)	0.92	0.31	0.31	0.54	0.93	0.29
Avail Cap(c_a), veh/h	694	1211	687	1017	773	1087
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	47.6	10.0	29.3	12.2	45.3	16.6
Incr Delay (d2), s/veh	12.9	0.7	1.2	2.1	11.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.0	6.0	5.7	20.2	18.0	13.2
LnGrp Delay(d),s/veh	60.5	10.6	30.5	14.3	56.6	16.8
LnGrp LOS	E	B	C	B	E	B
Approach Vol, veh/h		785	765		717	
Approach Delay, s/veh		36.8	18.8		42.8	
Approach LOS		D	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		89.0		41.4	36.7	52.3		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 85		* 57	51.0	* 30		
Max Q Clear Time (g_c+I1), s		13.5		35.5	31.5	27.4		
Green Ext Time (p_c), s		1.6		1.7	1.2	0.6		

Intersection Summary	
HCM 2010 Ctrl Delay	32.6
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	58	0	72	22	268	0	870	62	224	691	91
Future Volume (veh/h)	145	58	0	72	22	268	0	870	62	224	691	91
Number	7	4	14	3	8	18	1	6	16	5	2	12
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		0.98	1.00		0.98	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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	145	58	0	72	22	268	0	870	62	224	691	91
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	238	83	0	327	90	841	0	999	71	534	2048	269
Arrive On Green	0.23	0.23	0.00	0.23	0.23	0.23	0.00	0.30	0.30	0.30	0.65	0.65
Sat Flow, veh/h	686	354	0	1060	385	1556	0	3438	238	1774	3145	414
Grp Volume(v), veh/h	203	0	0	94	0	268	0	460	472	224	389	393
Grp Sat Flow(s),veh/h/ln	1040	0	0	1445	0	1556	0	1770	1814	1774	1770	1789
Q Serve(g_s), s	11.5	0.0	0.0	0.0	0.0	0.0	0.0	19.7	19.7	8.1	7.9	7.9
Cycle Q Clear(g_c), s	15.6	0.0	0.0	4.1	0.0	0.0	0.0	19.7	19.7	8.1	7.9	7.9
Prop In Lane	0.71		0.00	0.77		1.00	0.00		0.13	1.00		0.23
Lane Grp Cap(c), veh/h	320	0	0	418	0	841	0	529	542	534	1152	1165
V/C Ratio(X)	0.63	0.00	0.00	0.23	0.00	0.32	0.00	0.87	0.87	0.42	0.34	0.34
Avail Cap(c_a), veh/h	449	0	0	568	0	1004	0	575	589	534	1152	1165
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	0.00	1.00	1.00	0.90	0.90	0.90
Uniform Delay (d), s/veh	30.6	0.0	0.0	25.0	0.0	10.4	0.0	26.6	26.6	22.4	6.2	6.2
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.2	0.0	0.2	0.0	17.6	17.2	0.2	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	4.4	0.0	0.0	1.7	0.0	3.3	0.0	12.2	12.4	3.9	4.0	4.1
LnGrp Delay(d),s/veh	32.1	0.0	0.0	25.2	0.0	10.6	0.0	44.2	43.8	22.5	7.0	7.0
LnGrp LOS	C			C		B		D	D	C	A	A
Approach Vol, veh/h		203			362			932			1006	
Approach Delay, s/veh		32.1			14.4			44.0			10.4	
Approach LOS		C			B			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		56.7		23.3	28.7	28.0		23.3
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		43.7		27.1	14.1	* 26		27.1
Max Q Clear Time (g_c+I1), s		9.9		17.6	10.1	21.7		6.1
Green Ext Time (p_c), s		5.7		0.7	0.1	2.2		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	25.2
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	561	1699	629	182	519	771
Future Volume (veh/h)	561	1699	629	182	519	771
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	561	1699	629	182	519	771
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	676	2755	1136	321	621	1522
Arrive On Green	0.20	0.54	0.29	0.29	0.35	0.35
Sat Flow, veh/h	3442	5253	4067	1102	1774	2787
Grp Volume(v), veh/h	561	1699	545	266	519	771
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1612	1774	1393
Q Serve(g_s), s	11.6	17.0	10.0	10.3	19.8	12.8
Cycle Q Clear(g_c), s	11.6	17.0	10.0	10.3	19.8	12.8
Prop In Lane	1.00			0.68	1.00	1.00
Lane Grp Cap(c), veh/h	676	2755	988	469	621	1522
V/C Ratio(X)	0.83	0.62	0.55	0.57	0.84	0.51
Avail Cap(c_a), veh/h	839	2755	988	469	769	1755
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	28.5	11.6	22.1	22.2	22.1	10.5
Incr Delay (d2), s/veh	5.8	1.0	2.2	4.9	6.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	8.1	5.0	5.2	10.8	4.9
LnGrp Delay(d),s/veh	34.3	12.7	24.3	27.1	28.7	10.8
LnGrp LOS	C	B	C	C	C	B
Approach Vol, veh/h		2260	811		1290	
Approach Delay, s/veh		18.0	25.2		18.0	
Approach LOS		B	C		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	18.5	25.5				44.0		29.8
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	18.0	18.0				40.0		32.0
Max Q Clear Time (g_c+I1), s	13.6	12.3				19.0		21.8
Green Ext Time (p_c), s	0.9	2.5				12.8		4.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	464	47	169	31	16	24	124	979	104	34	867	401
Future Volume (veh/h)	464	47	169	31	16	24	124	979	104	34	867	401
Number	3	8	18	7	4	14	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		0.98	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	498	0	169	31	16	24	124	979	104	34	867	401
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	570	0	252	104	39	58	634	2306	1099	44	1114	738
Arrive On Green	0.16	0.00	0.16	0.06	0.06	0.06	0.72	1.00	1.00	0.02	0.31	0.31
Sat Flow, veh/h	3548	0	1572	1774	665	997	1774	3539	1545	1774	3539	1537
Grp Volume(v), veh/h	498	0	169	31	0	40	124	979	104	34	867	401
Grp Sat Flow(s),veh/h/ln	1774	0	1572	1774	0	1662	1774	1770	1545	1774	1770	1537
Q Serve(g_s), s	21.9	0.0	16.2	2.7	0.0	3.7	3.7	0.0	0.0	3.0	35.6	29.6
Cycle Q Clear(g_c), s	21.9	0.0	16.2	2.7	0.0	3.7	3.7	0.0	0.0	3.0	35.6	29.6
Prop In Lane	1.00		1.00	1.00		0.60	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	570	0	252	104	0	97	634	2306	1099	44	1114	738
V/C Ratio(X)	0.87	0.00	0.67	0.30	0.00	0.41	0.20	0.42	0.09	0.78	0.78	0.54
Avail Cap(c_a), veh/h	843	0	373	299	0	280	634	2306	1099	89	1265	804
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.82	0.82	0.82	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.6	0.0	63.2	72.2	0.0	72.7	15.2	0.0	0.0	77.6	49.8	29.8
Incr Delay (d2), s/veh	6.2	0.0	2.3	1.2	0.0	2.1	0.0	0.5	0.1	10.5	5.4	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	11.3	0.0	7.2	1.4	0.0	1.8	1.8	0.2	0.0	1.6	18.2	17.1
LnGrp Delay(d),s/veh	71.7	0.0	65.4	73.4	0.0	74.8	15.2	0.5	0.1	88.1	55.1	32.7
LnGrp LOS	E		E	E		E	B	A	A	F	E	C
Approach Vol, veh/h		667			71			1207			1302	
Approach Delay, s/veh		70.1			74.2			2.0			49.1	
Approach LOS		E			E			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.9	108.8		13.5	61.8	55.0		29.7
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.6	* 4.6		4.0
Max Green Setting (Gmax), s	8.0	70.2		* 27	21.0	* 57		38.0
Max Q Clear Time (g_c+I1), s	5.0	2.0		5.7	5.7	37.6		23.9
Green Ext Time (p_c), s	0.0	21.8		0.2	0.1	12.8		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	36.4
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	34.3
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	272	63	207	325	33	69	118	214	37	162	55
Future Vol, veh/h	34	272	63	207	325	33	69	118	214	37	162	55
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	272	63	207	325	33	69	118	214	37	162	55
Number of Lanes	1	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	3
HCM Control Delay	30.1	45.7	22.4	33.6
HCM LOS	D	E	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1
Vol Left, %	37%	0%	100%	0%	0%	100%	0%	15%
Vol Thru, %	63%	0%	0%	100%	0%	0%	91%	64%
Vol Right, %	0%	100%	0%	0%	100%	0%	9%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	187	214	34	272	63	207	358	254
LT Vol	69	0	34	0	0	207	0	37
Through Vol	118	0	0	272	0	0	325	162
RT Vol	0	214	0	0	63	0	33	55
Lane Flow Rate	187	214	34	272	63	207	358	254
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.518	0.538	0.097	0.74	0.159	0.564	0.917	0.706
Departure Headway (Hd)	9.972	9.052	10.314	9.792	9.061	9.814	9.222	10.009
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	363	398	348	370	396	368	394	361
Service Time	7.724	6.804	8.065	7.542	6.811	7.564	6.971	7.762
HCM Lane V/C Ratio	0.515	0.538	0.098	0.735	0.159	0.563	0.909	0.704
HCM Control Delay	23	21.9	14.2	35.9	13.5	24.6	57.9	33.6
HCM Lane LOS	C	C	B	E	B	C	F	D
HCM 95th-tile Q	2.8	3.1	0.3	5.8	0.6	3.3	9.7	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	150	23	239	169	176	57	1561	186	257	1300	49
Future Volume (veh/h)	4	150	23	239	169	176	57	1561	186	257	1300	49
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	4	180	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	4	150	0	239	169	176	57	1561	186	257	1300	0
Adj No. of Lanes	0	2	0	0	2	0	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	28	860	0	294	219	241	84	2245	76	386	2147	961
Arrive On Green	0.27	0.27	0.00	0.27	0.27	0.27	0.04	0.46	0.46	0.20	0.62	0.00
Sat Flow, veh/h	31	3265	0	955	804	884	1774	4601	547	1774	3539	1583
Grp Volume(v), veh/h	79	75	0	282	0	302	57	1150	597	257	1300	0
Grp Sat Flow(s),veh/h/ln	1601	1610	0	1127	0	1516	1774	1695	1758	1774	1770	1583
Q Serve(g_s), s	0.3	6.8	0.0	40.5	0.0	34.5	6.1	52.9	53.0	25.8	41.8	0.0
Cycle Q Clear(g_c), s	34.8	6.8	0.0	47.3	0.0	34.5	6.1	52.9	53.0	25.8	41.8	0.0
Prop In Lane	0.05		0.00	0.85		0.58	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	449	439	0	341	0	413	84	1508	814	386	2147	961
V/C Ratio(X)	0.18	0.17	0.00	0.83	0.00	0.73	0.68	0.76	0.73	0.67	0.61	0.00
Avail Cap(c_a), veh/h	539	514	0	402	0	484	121	1562	810	409	2205	986
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.3	54.5	0.0	73.0	0.0	64.8	91.3	54.9	54.9	70.2	24.0	0.0
Incr Delay (d2), s/veh	0.2	0.2	0.0	11.8	0.0	4.7	9.3	3.7	5.8	3.8	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	51.3	179.5	145.7	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	3.2	0.0	16.0	0.0	15.4	5.3	79.4	78.6	13.2	22.3	0.0
LnGrp Delay(d),s/veh	54.5	54.6	0.0	84.8	0.0	69.5	151.9	238.1	206.4	74.0	25.3	0.0
LnGrp LOS	D	D		F		E	F	F	F	E	C	
Approach Vol, veh/h		154			584			1804			1557	
Approach Delay, s/veh		54.6			76.9			224.9			33.3	
Approach LOS		D			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	42.7	92.0		56.3	11.7	123.0		56.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	44.0	88.0		61.0	13.0	119.0		61.0
Max Q Clear Time (g_c+I1), s	27.8	55.0		36.8	8.1	43.8		49.3
Green Ext Time (p_c), s	0.7	17.1		0.8	0.0	15.0		3.0

Intersection Summary	
HCM 2010 Ctrl Delay	124.7
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	320	57	408	283	165	66	1562	465	237	1285	65
Future Volume (veh/h)	152	320	57	408	283	165	66	1562	465	237	1285	65
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		0.96	1.00		0.96	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	152	320	57	408	283	165	66	1562	465	237	1285	65
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	398	70	465	317	389	83	1946	1074	282	2070	1081
Arrive On Green	0.10	0.13	0.13	0.14	0.17	0.17	0.05	0.55	0.55	0.08	0.58	0.58
Sat Flow, veh/h	1774	2988	525	3442	1863	1522	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	152	188	189	408	283	165	66	1562	465	237	1285	65
Grp Sat Flow(s),veh/h/ln	1774	1770	1743	1721	1863	1522	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	13.5	16.5	16.9	18.6	23.8	14.6	5.9	56.9	21.3	10.9	37.9	2.2
Cycle Q Clear(g_c), s	13.5	16.5	16.9	18.6	23.8	14.6	5.9	56.9	21.3	10.9	37.9	2.2
Prop In Lane	1.00		0.30	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	236	232	465	317	389	83	1946	1074	282	2070	1081
V/C Ratio(X)	0.87	0.80	0.82	0.88	0.89	0.42	0.79	0.80	0.43	0.84	0.62	0.06
Avail Cap(c_a), veh/h	233	287	283	624	396	453	144	1946	1074	344	2070	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	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	71.2	67.2	67.4	67.9	65.0	50.2	75.5	29.0	11.3	72.4	21.7	8.4
Incr Delay (d2), s/veh	23.2	12.0	14.1	10.7	18.8	0.7	15.3	3.6	1.3	14.4	1.4	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	7.7	8.9	9.1	9.5	13.9	6.2	3.3	28.7	9.5	5.7	18.8	1.0
LnGrp Delay(d),s/veh	94.3	79.2	81.5	78.6	83.8	50.9	90.8	32.6	12.6	86.8	23.1	8.5
LnGrp LOS	F	E	F	E	F	D	F	C	B	F	C	A
Approach Vol, veh/h		529			856			2093			1587	
Approach Delay, s/veh		84.4			75.0			30.0			32.0	
Approach LOS		F			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	17.1	92.0	25.6	25.3	11.5	97.6	19.7	31.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	88.0	29.0	26.0	13.0	91.0	21.0	34.0
Max Q Clear Time (g_c+I1), s	12.9	58.9	20.6	18.9	7.9	39.9	15.5	25.8
Green Ext Time (p_c), s	0.2	17.8	1.0	1.2	0.0	14.4	0.2	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	43.9
HCM 2010 LOS	D

Notes

User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	711	737	2096	0	0	1051
Future Volume (veh/h)	711	737	2096	0	0	1051
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	711	737	2096	0	0	1051
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	1029	833	2114	0	0	2114
Arrive On Green	0.30	0.30	0.60	0.00	0.00	0.60
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	711	737	2096	0	0	1051
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	14.6	20.2	46.8	0.0	0.0	13.6
Cycle Q Clear(g_c), s	14.6	20.2	46.8	0.0	0.0	13.6
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	1029	833	2114	0	0	2114
V/C Ratio(X)	0.69	0.88	0.99	0.00	0.00	0.50
Avail Cap(c_a), veh/h	1076	871	2114	0	0	2114
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.48	0.00	0.00	1.00
Uniform Delay (d), s/veh	24.8	26.7	15.9	0.0	0.0	9.2
Incr Delay (d2), s/veh	1.8	10.5	11.7	0.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	8.9	25.8	0.0	0.0	6.8
LnGrp Delay(d),s/veh	26.6	37.2	27.6	0.0	0.0	10.1
LnGrp LOS	C	D	C			B
Approach Vol, veh/h	1448		2096			1051
Approach Delay, s/veh	32.0		27.6			10.1
Approach LOS	C		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		51.9				51.9		28.1
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		46.7				46.7		25.0
Max Q Clear Time (g_c+I1), s		48.8				15.6		22.2
Green Ext Time (p_c), s		0.0				9.2		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	25.0
HCM 2010 LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1299	451	0	1173	1553	0
Future Volume (veh/h)	1299	451	0	1173	1553	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1299	451	0	1173	1553	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1380	635	0	1757	1757	0
Arrive On Green	0.40	0.40	0.00	0.50	0.99	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1299	451	0	1173	1553	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	29.1	19.1	0.0	20.0	2.0	0.0
Cycle Q Clear(g_c), s	29.1	19.1	0.0	20.0	2.0	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1380	635	0	1757	1757	0
V/C Ratio(X)	0.94	0.71	0.00	0.67	0.88	0.00
Avail Cap(c_a), veh/h	1415	651	0	1757	1757	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.79	0.00
Uniform Delay (d), s/veh	23.1	20.1	0.0	15.2	0.1	0.0
Incr Delay (d2), s/veh	12.2	3.0	0.0	2.0	5.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.0	8.8	0.0	10.1	1.5	0.0
LnGrp Delay(d),s/veh	35.2	23.0	0.0	17.2	5.7	0.0
LnGrp LOS	D	C		B	A	
Approach Vol, veh/h	1750			1173	1553	
Approach Delay, s/veh	32.1			17.2	5.7	
Approach LOS	C			B	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		43.8		36.2		43.8		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		38.9		32.9		38.9		
Max Q Clear Time (g_c+I1), s		22.0		31.1		4.0		
Green Ext Time (p_c), s		5.7		1.0		10.9		

Intersection Summary	
HCM 2010 Ctrl Delay	19.0
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	13.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	285	40	74	362	30	67	103	63	21	99	64
Future Vol, veh/h	31	285	40	74	362	30	67	103	63	21	99	64
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	285	40	74	362	30	67	103	63	21	99	64
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	12.7	14.5	14.2	12.9
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	29%	18%	0%	29%	0%	11%
Vol Thru, %	44%	82%	78%	71%	86%	54%
Vol Right, %	27%	0%	22%	0%	14%	35%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	233	174	183	255	211	184
LT Vol	67	31	0	74	0	21
Through Vol	103	143	143	181	181	99
RT Vol	63	0	40	0	30	64
Lane Flow Rate	233	174	182	255	211	184
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.421	0.33	0.335	0.479	0.382	0.335
Departure Headway (Hd)	6.501	6.848	6.599	6.767	6.517	6.564
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	555	526	546	536	555	546
Service Time	4.543	4.588	4.34	4.467	4.217	4.611
HCM Lane V/C Ratio	0.42	0.331	0.333	0.476	0.38	0.337
HCM Control Delay	14.2	12.9	12.6	15.5	13.2	12.9
HCM Lane LOS	B	B	B	C	B	B
HCM 95th-tile Q	2.1	1.4	1.5	2.6	1.8	1.5

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	53	783	7	8	367	67	9	6	35	93	2	79
Future Vol, veh/h	53	783	7	8	367	67	9	6	35	93	2	79
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	783	7	8	367	67	9	6	35	93	2	79

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	465	0	0	806	0	0	1110	1390	436	974	1360	248
Stage 1	-	-	-	-	-	-	909	909	-	448	448	-
Stage 2	-	-	-	-	-	-	201	481	-	526	912	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1093	-	-	814	-	-	164	141	568	206	147	752
Stage 1	-	-	-	-	-	-	296	352	-	560	571	-
Stage 2	-	-	-	-	-	-	782	552	-	503	351	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1065	-	-	803	-	-	132	122	549	164	127	733
Mov Cap-2 Maneuver	-	-	-	-	-	-	132	122	-	164	127	-
Stage 1	-	-	-	-	-	-	266	316	-	497	549	-
Stage 2	-	-	-	-	-	-	686	530	-	412	316	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.3	20.9	46
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	276	1065	-	-	803	-	-	252
HCM Lane V/C Ratio	0.181	0.05	-	-	0.01	-	-	0.69
HCM Control Delay (s)	20.9	8.6	0.3	-	9.5	0.1	-	46
HCM Lane LOS	C	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	0.6	0.2	-	-	0	-	-	4.6

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	77	25	63	125	1	11	1	69	4	5	0
Future Vol, veh/h	0	77	25	63	125	1	11	1	69	4	5	0
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	77	25	63	125	1	11	1	69	4	5	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	130	0	0	103	0	0	346	347	92	382	359	131
Stage 1	-	-	-	-	-	-	91	91	-	256	256	-
Stage 2	-	-	-	-	-	-	255	256	-	126	103	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1455	-	-	1489	-	-	608	576	965	576	568	919
Stage 1	-	-	-	-	-	-	916	820	-	749	696	-
Stage 2	-	-	-	-	-	-	749	696	-	878	810	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1450	-	-	1488	-	-	582	547	963	513	540	915
Mov Cap-2 Maneuver	-	-	-	-	-	-	582	547	-	513	540	-
Stage 1	-	-	-	-	-	-	915	819	-	747	662	-
Stage 2	-	-	-	-	-	-	709	662	-	813	809	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.5	9.5	11.9
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	877	1450	-	-	1488	-	-	528
HCM Lane V/C Ratio	0.092	-	-	-	0.042	-	-	0.017
HCM Control Delay (s)	9.5	0	-	-	7.5	0	-	11.9
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	64	17	77	90	2	4	10	15	5	47	25
Future Vol, veh/h	6	64	17	77	90	2	4	10	15	5	47	25
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	64	17	77	90	2	4	10	15	5	47	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	94	0	0	83	0	0	369	335	76	345	342	94
Stage 1	-	-	-	-	-	-	87	87	-	247	247	-
Stage 2	-	-	-	-	-	-	282	248	-	98	95	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1500	-	-	1514	-	-	588	585	985	609	580	963
Stage 1	-	-	-	-	-	-	921	823	-	757	702	-
Stage 2	-	-	-	-	-	-	725	701	-	908	816	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1498	-	-	1511	-	-	510	549	983	564	544	961
Mov Cap-2 Maneuver	-	-	-	-	-	-	510	549	-	564	544	-
Stage 1	-	-	-	-	-	-	915	818	-	752	663	-
Stage 2	-	-	-	-	-	-	620	662	-	879	811	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	3.4	10.3	11.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	702	1498	-	-	1511	-	-	635
HCM Lane V/C Ratio	0.041	0.004	-	-	0.051	-	-	0.121
HCM Control Delay (s)	10.3	7.4	0	-	7.5	0	-	11.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.2	-	-	0.4

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	71	9	56	157	1	9	3	16	3	6	7
Future Vol, veh/h	9	71	9	56	157	1	9	3	16	3	6	7
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	71	9	56	157	1	9	3	16	3	6	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	159	0	0	80	0	0	371	365	78	376	369	160
Stage 1	-	-	-	-	-	-	94	94	-	271	271	-
Stage 2	-	-	-	-	-	-	277	271	-	105	98	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1420	-	-	1518	-	-	586	563	983	581	560	885
Stage 1	-	-	-	-	-	-	913	817	-	735	685	-
Stage 2	-	-	-	-	-	-	729	685	-	901	814	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1419	-	-	1518	-	-	556	536	981	547	533	884
Mov Cap-2 Maneuver	-	-	-	-	-	-	556	536	-	547	533	-
Stage 1	-	-	-	-	-	-	907	811	-	729	657	-
Stage 2	-	-	-	-	-	-	687	657	-	875	808	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	2	10.1	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	735	1419	-	-	1518	-	-	649
HCM Lane V/C Ratio	0.038	0.006	-	-	0.037	-	-	0.025
HCM Control Delay (s)	10.1	7.6	0	-	7.5	0	-	10.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	101	2	33	71	2	98
Future Vol, veh/h	101	2	33	71	2	98
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	101	2	33	71	2	98

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	106	0	243	105
Stage 1	-	-	-	-	105	-
Stage 2	-	-	-	-	138	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1485	-	773	949
Stage 1	-	-	-	-	919	-
Stage 2	-	-	-	-	908	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1481	-	752	947
Mov Cap-2 Maneuver	-	-	-	-	752	-
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	887	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	942	-	-	1481	-
HCM Lane V/C Ratio	0.106	-	-	0.022	-
HCM Control Delay (s)	9.3	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	80	72	1	2	120	3	3	5	5	5	5	67
Future Vol, veh/h	80	72	1	2	120	3	3	5	5	5	5	67
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	80	72	1	2	120	3	3	5	5	5	5	67

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	125	0	0	74	0	0	397	363	74	366	362	125
Stage 1	-	-	-	-	-	-	234	234	-	128	128	-
Stage 2	-	-	-	-	-	-	163	129	-	238	234	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1462	-	-	1526	-	-	563	565	988	590	565	926
Stage 1	-	-	-	-	-	-	769	711	-	876	790	-
Stage 2	-	-	-	-	-	-	839	789	-	765	711	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1460	-	-	1525	-	-	495	531	987	556	531	924
Mov Cap-2 Maneuver	-	-	-	-	-	-	495	531	-	556	531	-
Stage 1	-	-	-	-	-	-	724	670	-	824	788	-
Stage 2	-	-	-	-	-	-	772	787	-	712	670	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4	0.1	10.8	9.7
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	633	1460	-	-	1525	-	-	847
HCM Lane V/C Ratio	0.021	0.055	-	-	0.001	-	-	0.091
HCM Control Delay (s)	10.8	7.6	0	-	7.4	0	-	9.7
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.3

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	28	6	10	35	47	4	107	24	51	169	29
Future Vol, veh/h	28	28	6	10	35	47	4	107	24	51	169	29
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	28	6	10	35	47	4	107	24	51	169	29
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	8.5	8.2	8.4	9.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	45%	11%	20%
Vol Thru, %	79%	45%	38%	68%
Vol Right, %	18%	10%	51%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	135	62	92	249
LT Vol	4	28	10	51
Through Vol	107	28	35	169
RT Vol	24	6	47	29
Lane Flow Rate	135	62	92	249
Geometry Grp	1	1	1	1
Degree of Util (X)	0.168	0.085	0.117	0.306
Departure Headway (Hd)	4.477	4.949	4.597	4.424
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	801	723	778	812
Service Time	2.507	2.988	2.633	2.45
HCM Lane V/C Ratio	0.169	0.086	0.118	0.307
HCM Control Delay	8.4	8.5	8.2	9.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.3	0.4	1.3

Intersection	
Intersection Delay, s/veh	18.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	88	23	42	71	43	160	26	230	41	48	354	58
Future Vol, veh/h	88	23	42	71	43	160	26	230	41	48	354	58
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	88	23	42	71	43	160	26	230	41	48	354	58
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	12.8	15.1	15.7	25
HCM LOS	B	C	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	58%	26%	10%
Vol Thru, %	77%	15%	16%	77%
Vol Right, %	14%	27%	58%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	297	153	274	460
LT Vol	26	88	71	48
Through Vol	230	23	43	354
RT Vol	41	42	160	58
Lane Flow Rate	297	153	274	460
Geometry Grp	1	1	1	1
Degree of Util (X)	0.512	0.292	0.479	0.755
Departure Headway (Hd)	6.208	6.871	6.298	5.911
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	579	520	570	612
Service Time	4.267	4.941	4.358	3.961
HCM Lane V/C Ratio	0.513	0.294	0.481	0.752
HCM Control Delay	15.7	12.8	15.1	25
HCM Lane LOS	C	B	C	C
HCM 95th-tile Q	2.9	1.2	2.6	6.8

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	15	64	4	17	1	78	1	2	1	3	1
Future Vol, veh/h	1	15	64	4	17	1	78	1	2	1	3	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	15	64	4	17	1	78	1	2	1	3	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	18	0	0	80	0	0	78	76	48	77	108	18
Stage 1	-	-	-	-	-	-	50	50	-	26	26	-
Stage 2	-	-	-	-	-	-	28	26	-	51	82	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1599	-	-	1518	-	-	911	814	1021	912	782	1061
Stage 1	-	-	-	-	-	-	963	853	-	992	874	-
Stage 2	-	-	-	-	-	-	989	874	-	962	827	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1599	-	-	1517	-	-	904	810	1020	907	778	1061
Mov Cap-2 Maneuver	-	-	-	-	-	-	904	810	-	907	778	-
Stage 1	-	-	-	-	-	-	961	851	-	991	871	-
Stage 2	-	-	-	-	-	-	982	871	-	958	825	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.3	9.4	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	905	1599	-	-	1517	-	-	847
HCM Lane V/C Ratio	0.09	0.001	-	-	0.003	-	-	0.006
HCM Control Delay (s)	9.4	7.3	0	-	7.4	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	20	21	1016	766	50
Future Vol, veh/h	40	20	21	1016	766	50
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	20	21	1016	766	50

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1827	769	819	0	-	0
Stage 1	769	-	-	-	-	-
Stage 2	1058	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	84	401	810	-	-	-
Stage 1	457	-	-	-	-	-
Stage 2	334	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	79	400	808	-	-	-
Mov Cap-2 Maneuver	260	-	-	-	-	-
Stage 1	429	-	-	-	-	-
Stage 2	333	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.4	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	808	-	294	-	-
HCM Lane V/C Ratio	0.026	-	0.204	-	-
HCM Control Delay (s)	9.6	0	20.4	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.8	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	285	22	372	512	0	616
Future Volume (veh/h)	285	22	372	512	0	616
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	285	22	372	0	0	616
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	358	28	1431	0	0	1431
Arrive On Green	0.22	0.22	0.40	0.00	0.00	0.40
Sat Flow, veh/h	1628	126	3725	0	0	3725
Grp Volume(v), veh/h	308	0	372	0	0	616
Grp Sat Flow(s),veh/h/ln	1759	0	1770	0	0	1770
Q Serve(g_s), s	3.3	0.0	1.4	0.0	0.0	2.5
Cycle Q Clear(g_c), s	3.3	0.0	1.4	0.0	0.0	2.5
Prop In Lane	0.93	0.07		0.00	0.00	
Lane Grp Cap(c), veh/h	387	0	1431	0	0	1431
V/C Ratio(X)	0.80	0.00	0.26	0.00	0.00	0.43
Avail Cap(c_a), veh/h	1145	0	3457	0	0	3457
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	7.4	0.0	4.0	0.0	0.0	4.3
Incr Delay (d2), s/veh	1.4	0.0	0.1	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.7	0.0	0.0	1.2
LnGrp Delay(d),s/veh	8.8	0.0	4.1	0.0	0.0	4.5
LnGrp LOS	A		A			A
Approach Vol, veh/h	308		372			616
Approach Delay, s/veh	8.8		4.1			4.5
Approach LOS	A		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		12.6		7.4		12.6		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		19.5		13.0		19.5		
Max Q Clear Time (g_c+I1), s		3.4		5.3		4.5		
Green Ext Time (p_c), s		2.5		0.1		3.6		

Intersection Summary	
HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	345	300	14	419	84	175	167	13	68	317	76
Future Volume (veh/h)	47	345	300	14	419	84	175	167	13	68	317	76
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.91	0.99		0.91	1.00		0.96	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	47	345	300	14	419	84	175	167	13	68	317	76
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	1023	929	53	1073	209	218	208	358	83	386	388
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.23	0.23	0.23	0.25	0.25	0.25
Sat Flow, veh/h	268	2646	1443	36	2776	541	929	887	1527	326	1520	1530
Grp Volume(v), veh/h	179	213	300	278	0	239	342	0	13	385	0	76
Grp Sat Flow(s),veh/h/ln	1304	1610	1443	1813	0	1540	1816	0	1527	1846	0	1530
Q Serve(g_s), s	1.6	8.9	9.5	0.0	0.0	10.8	17.0	0.0	0.6	18.8	0.0	3.7
Cycle Q Clear(g_c), s	12.4	8.9	9.5	10.3	0.0	10.8	17.0	0.0	0.6	18.8	0.0	3.7
Prop In Lane	0.26		1.00	0.05		0.35	0.51		1.00	0.18		1.00
Lane Grp Cap(c), veh/h	551	622	929	740	0	595	426	0	358	469	0	388
V/C Ratio(X)	0.32	0.34	0.32	0.38	0.00	0.40	0.80	0.00	0.04	0.82	0.00	0.20
Avail Cap(c_a), veh/h	551	622	929	740	0	595	740	0	622	810	0	671
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.5	20.8	8.7	21.2	0.0	21.3	34.6	0.0	28.3	33.7	0.0	28.0
Incr Delay (d2), s/veh	1.6	1.5	0.9	1.5	0.0	2.0	3.6	0.0	0.0	3.6	0.0	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	3.8	4.2	6.3	5.6	0.0	4.9	9.0	0.0	0.3	10.1	0.0	1.6
LnGrp Delay(d),s/veh	22.0	22.3	9.6	22.6	0.0	23.3	38.2	0.0	28.3	37.3	0.0	28.3
LnGrp LOS	C	C	A	C		C	D		C	D		C
Approach Vol, veh/h		692			517			355			461	
Approach Delay, s/veh		16.7			23.0			37.8			35.8	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		41.0		26.4		41.0		28.3
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		37.0		39.0		37.0		42.0
Max Q Clear Time (g_c+I1), s		14.4		19.0		12.8		20.8
Green Ext Time (p_c), s		3.7		2.2		3.4		2.7

Intersection Summary	
HCM 2010 Ctrl Delay	26.4
HCM 2010 LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	405	308	391	642	423	360
Future Volume (veh/h)	405	308	391	642	423	360
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	405	308	391	642	423	360
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	431	1258	748	1028	461	797
Arrive On Green	0.24	0.68	0.40	0.40	0.26	0.26
Sat Flow, veh/h	1774	1863	1863	1534	1774	1583
Grp Volume(v), veh/h	405	308	391	642	423	360
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1534	1774	1583
Q Serve(g_s), s	29.1	8.4	20.7	31.7	30.1	19.0
Cycle Q Clear(g_c), s	29.1	8.4	20.7	31.7	30.1	19.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	431	1258	748	1028	461	797
V/C Ratio(X)	0.94	0.24	0.52	0.62	0.92	0.45
Avail Cap(c_a), veh/h	573	1258	748	1028	598	918
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	48.2	8.2	29.5	12.8	46.7	20.8
Incr Delay (d2), s/veh	17.9	0.5	2.6	2.9	15.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.4	4.4	11.2	23.8	16.8	19.5
LnGrp Delay(d),s/veh	66.1	8.7	32.1	15.7	62.2	21.1
LnGrp LOS	E	A	C	B	E	C
Approach Vol, veh/h		713	1033		783	
Approach Delay, s/veh		41.3	21.9		43.3	
Approach LOS		D	C		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		92.0		38.0	35.6	56.4		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 88		* 44	42.0	* 42		
Max Q Clear Time (g_c+I1), s		10.4		32.1	31.1	33.7		
Green Ext Time (p_c), s		1.3		1.7	0.5	2.2		

Intersection Summary	
HCM 2010 Ctrl Delay	34.0
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	16	3	45	20	218	2	943	61	137	772	45
Future Volume (veh/h)	59	16	3	45	20	218	2	943	61	137	772	45
Number	7	4	14	3	8	18	1	6	16	5	2	12
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		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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	59	16	3	45	20	218	2	943	61	137	772	45
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	118	28	4	158	63	898	26	1105	71	808	2785	162
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.34	0.34	0.34	0.46	0.82	0.82
Sat Flow, veh/h	632	243	35	997	546	1547	1	3298	213	1774	3399	198
Grp Volume(v), veh/h	78	0	0	65	0	218	533	0	473	137	402	415
Grp Sat Flow(s),veh/h/ln	910	0	0	1543	0	1547	1861	0	1651	1774	1770	1828
Q Serve(g_s), s	7.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.4	6.4	7.4	7.4
Cycle Q Clear(g_c), s	12.9	0.0	0.0	5.3	0.0	0.0	37.3	0.0	37.4	6.4	7.4	7.4
Prop In Lane	0.76		0.04	0.69		1.00	0.00		0.13	1.00		0.11
Lane Grp Cap(c), veh/h	150	0	0	221	0	898	649	0	553	808	1450	1498
V/C Ratio(X)	0.52	0.00	0.00	0.29	0.00	0.24	0.82	0.00	0.86	0.17	0.28	0.28
Avail Cap(c_a), veh/h	277	0	0	374	0	1057	993	0	860	808	1450	1498
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	0.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	62.2	0.0	0.0	57.1	0.0	15.0	43.4	0.0	43.4	22.5	3.0	3.0
Incr Delay (d2), s/veh	2.1	0.0	0.0	0.5	0.0	0.1	11.2	0.0	15.5	0.0	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.0	2.4	0.0	4.1	21.3	0.0	19.5	3.1	3.7	3.8
LnGrp Delay(d),s/veh	64.3	0.0	0.0	57.7	0.0	15.1	54.5	0.0	58.9	22.5	3.3	3.3
LnGrp LOS	E			E		B	D		E	C	A	A
Approach Vol, veh/h		78			283			1006			954	
Approach Delay, s/veh		64.3			24.9			56.6			6.1	
Approach LOS		E			C			E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		119.3		20.7	68.3	51.0		20.7
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		100.4		30.4	23.9	* 73		30.4
Max Q Clear Time (g_c+I1), s		9.4		14.9	8.4	39.4		7.3
Green Ext Time (p_c), s		6.3		0.3	0.1	7.5		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	32.2
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	563	801	1377	317	270	557
Future Volume (veh/h)	563	801	1377	317	270	557
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	563	801	1377	317	270	557
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	681	3467	1742	400	354	1108
Arrive On Green	0.20	0.68	0.42	0.42	0.20	0.20
Sat Flow, veh/h	3442	5253	4272	943	1774	2787
Grp Volume(v), veh/h	563	801	1137	557	270	557
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1656	1774	1393
Q Serve(g_s), s	10.6	4.0	19.6	19.7	9.7	10.2
Cycle Q Clear(g_c), s	10.6	4.0	19.6	19.7	9.7	10.2
Prop In Lane	1.00			0.57	1.00	1.00
Lane Grp Cap(c), veh/h	681	3467	1439	703	354	1108
V/C Ratio(X)	0.83	0.23	0.79	0.79	0.76	0.50
Avail Cap(c_a), veh/h	816	3467	1439	703	421	1212
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	25.9	4.1	16.8	16.8	25.5	15.3
Incr Delay (d2), s/veh	6.0	0.2	4.5	8.9	6.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	1.9	10.1	10.7	5.4	3.9
LnGrp Delay(d),s/veh	32.0	4.2	21.3	25.7	32.2	15.7
LnGrp LOS	C	A	C	C	C	B
Approach Vol, veh/h		1364	1694		827	
Approach Delay, s/veh		15.7	22.8		21.1	
Approach LOS		B	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	17.4	32.6				50.0		17.5
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	26.0				46.0		16.0
Max Q Clear Time (g_c+I1), s	12.6	21.7				6.0		12.2
Green Ext Time (p_c), s	0.8	3.5				6.4		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	19.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	485	25	94	69	31	66	186	958	67	26	748	335
Future Volume (veh/h)	485	25	94	69	31	66	186	958	67	26	748	335
Number	3	8	18	7	4	14	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		0.97	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	503	0	94	69	31	66	186	958	67	26	748	335
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	622	0	276	163	48	103	124	1927	985	36	1752	1041
Arrive On Green	0.18	0.00	0.18	0.09	0.09	0.09	0.07	0.54	0.54	0.02	0.49	0.49
Sat Flow, veh/h	3548	0	1573	1774	526	1121	1774	3539	1543	1774	3539	1543
Grp Volume(v), veh/h	503	0	94	69	0	97	186	958	67	26	748	335
Grp Sat Flow(s),veh/h/ln	1774	0	1573	1774	0	1647	1774	1770	1543	1774	1770	1543
Q Serve(g_s), s	13.6	0.0	5.2	3.7	0.0	5.7	7.0	16.9	1.7	1.5	13.5	9.1
Cycle Q Clear(g_c), s	13.6	0.0	5.2	3.7	0.0	5.7	7.0	16.9	1.7	1.5	13.5	9.1
Prop In Lane	1.00		1.00	1.00		0.68	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	622	0	276	163	0	151	124	1927	985	36	1752	1041
V/C Ratio(X)	0.81	0.00	0.34	0.42	0.00	0.64	1.50	0.50	0.07	0.71	0.43	0.32
Avail Cap(c_a), veh/h	958	0	425	479	0	445	124	1927	985	71	1752	1041
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	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	0.0	36.2	42.9	0.0	43.8	46.5	14.2	6.9	48.7	16.2	6.9
Incr Delay (d2), s/veh	2.4	0.0	0.5	1.3	0.0	3.4	257.4	0.8	0.1	9.2	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	0.0	2.3	1.9	0.0	2.7	12.3	8.5	0.9	0.8	6.7	6.2
LnGrp Delay(d),s/veh	42.0	0.0	36.7	44.2	0.0	47.2	303.9	15.0	7.0	57.8	16.9	7.8
LnGrp LOS	D		D	D		D	F	B	A	E	B	A
Approach Vol, veh/h		597			166			1211			1109	
Approach Delay, s/veh		41.2			46.0			59.0			15.1	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.1	59.0		13.4	11.0	54.1		21.5
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.0	4.6		4.0
Max Green Setting (Gmax), s	4.0	25.2		* 27	7.0	22.2		27.0
Max Q Clear Time (g_c+I1), s	3.5	18.9		7.7	9.0	15.5		15.6
Green Ext Time (p_c), s	0.0	4.6		0.5	0.0	4.8		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	39.0
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	36.1
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	379	86	182	245	21	87	147	220	39	123	28
Future Vol, veh/h	45	379	86	182	245	21	87	147	220	39	123	28
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	45	379	86	182	245	21	87	147	220	39	123	28
Number of Lanes	1	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	3
HCM Control Delay	56.9	28.3	25	25.2
HCM LOS	F	D	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1
Vol Left, %	37%	0%	100%	0%	0%	100%	0%	21%
Vol Thru, %	63%	0%	0%	100%	0%	0%	92%	65%
Vol Right, %	0%	100%	0%	0%	100%	0%	8%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	234	220	45	379	86	182	266	190
LT Vol	87	0	45	0	0	182	0	39
Through Vol	147	0	0	379	0	0	245	123
RT Vol	0	220	0	0	86	0	21	28
Lane Flow Rate	234	220	45	379	86	182	266	190
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.636	0.541	0.123	0.98	0.205	0.511	0.703	0.549
Departure Headway (Hd)	9.777	8.857	9.828	9.309	8.581	10.103	9.52	10.397
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	370	407	366	390	419	359	380	348
Service Time	7.515	6.595	7.564	7.044	6.316	7.843	7.259	8.157
HCM Lane V/C Ratio	0.632	0.541	0.123	0.972	0.205	0.507	0.7	0.546
HCM Control Delay	28.2	21.6	13.9	71.9	13.5	23	32	25.2
HCM Lane LOS	D	C	B	F	B	C	D	D
HCM 95th-tile Q	4.2	3.1	0.4	11.4	0.8	2.8	5.2	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	158	32	238	121	255	46	1198	125	145	1384	20
Future Volume (veh/h)	21	158	32	238	121	255	46	1198	125	145	1384	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	85	0	0	140	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	21	158	0	238	121	255	46	1198	125	145	1384	0
Adj No. of Lanes	0	2	0	0	2	0	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	36	601	0	130	697	181	59	2374	158	214	2005	897
Arrive On Green	0.30	0.30	0.00	0.30	0.30	0.30	0.03	0.51	0.51	0.13	0.60	0.00
Sat Flow, veh/h	157	2264	0	873	501	1188	1774	4672	487	1774	3539	1583
Grp Volume(v), veh/h	74	105	0	302	0	312	46	869	454	145	1384	0
Grp Sat Flow(s),veh/h/ln	726	1610	0	1106	0	1455	1774	1695	1770	1774	1770	1583
Q Serve(g_s), s	1.9	8.9	0.0	40.7	0.0	35.0	4.7	31.3	31.3	14.3	47.4	0.0
Cycle Q Clear(g_c), s	36.9	8.9	0.0	49.6	0.0	35.0	4.7	31.3	31.3	14.3	47.4	0.0
Prop In Lane	0.28		0.00	0.79		0.82	1.00		0.28	1.00		1.00
Lane Grp Cap(c), veh/h	36	545	0	487	0	532	59	1644	878	214	2005	897
V/C Ratio(X)	2.06	0.19	0.00	0.62	0.00	0.59	0.78	0.53	0.52	0.68	0.69	0.00
Avail Cap(c_a), veh/h	370	622	0	480	0	562	116	1715	895	280	2118	947
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	99.8	46.5	0.0	71.0	0.0	61.4	93.3	42.3	40.9	81.9	30.2	0.0
Incr Delay (d2), s/veh	496.8	0.2	0.0	2.5	0.0	1.5	19.8	1.2	2.2	4.2	2.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	144.3	0.0	111.3	0.0	49.2	42.1	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	5.5	0.0	45.4	0.0	42.0	2.8	41.3	40.8	7.7	27.0	0.0
LnGrp Delay(d),s/veh	596.7	46.7	0.0	217.8	0.0	174.2	113.1	92.8	85.2	86.1	32.2	0.0
LnGrp LOS	F	D		F		F	F	F	F	F	C	
Approach Vol, veh/h		179			614			1369			1529	
Approach Delay, s/veh		274.9			195.6			91.0			37.3	
Approach LOS		F			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	27.1	97.0		59.7	10.1	114.0		59.7
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	29.0	93.0		71.0	12.0	110.0		71.0
Max Q Clear Time (g_c+I1), s	16.3	33.3		38.9	6.7	49.4		51.6
Green Ext Time (p_c), s	0.3	13.3		1.1	0.0	16.4		4.1

Intersection Summary	
HCM 2010 Ctrl Delay	95.1
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	334	26	509	296	293	70	1030	478	258	1333	69
Future Volume (veh/h)	129	334	26	509	296	293	70	1030	478	258	1333	69
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		0.96	1.00		0.97	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	129	334	26	509	296	293	70	1030	478	258	1333	69
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	410	32	588	384	470	89	1704	1023	337	1872	977
Arrive On Green	0.09	0.12	0.12	0.17	0.21	0.21	0.05	0.48	0.48	0.10	0.53	0.53
Sat Flow, veh/h	1774	3316	256	3442	1863	1529	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	129	177	183	509	296	293	70	1030	478	258	1333	69
Grp Sat Flow(s),veh/h/ln	1774	1770	1803	1721	1863	1529	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	9.1	12.4	12.5	18.2	19.0	6.1	4.9	27.0	8.7	9.3	36.1	2.2
Cycle Q Clear(g_c), s	9.1	12.4	12.5	18.2	19.0	6.1	4.9	27.0	8.7	9.3	36.1	2.2
Prop In Lane	1.00		0.14	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	157	219	223	588	384	470	89	1704	1023	337	1872	977
V/C Ratio(X)	0.82	0.81	0.82	0.87	0.77	0.62	0.78	0.60	0.47	0.77	0.71	0.07
Avail Cap(c_a), veh/h	238	293	299	815	500	565	154	1704	1023	462	1872	977
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	56.8	54.1	54.1	51.1	47.5	23.1	59.5	24.0	3.7	55.7	22.6	9.7
Incr Delay (d2), s/veh	12.9	11.6	12.4	7.3	5.4	1.5	13.7	1.6	1.5	5.2	2.3	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	5.0	6.8	7.0	9.3	10.4	8.3	2.8	13.5	4.1	4.6	18.2	1.0
LnGrp Delay(d),s/veh	69.7	65.7	66.5	58.4	52.9	24.7	73.2	25.6	5.3	60.9	24.9	9.8
LnGrp LOS	E	E	E	E	D	C	E	C	A	E	C	A
Approach Vol, veh/h		489			1098			1578			1660	
Approach Delay, s/veh		67.1			47.9			21.6			29.9	
Approach LOS		E			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	16.4	65.0	25.6	19.7	10.4	71.0	15.2	30.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	61.0	30.0	21.0	11.0	67.0	17.0	34.0
Max Q Clear Time (g_c+I1), s	11.3	29.0	20.2	14.5	6.9	38.1	11.1	21.0
Green Ext Time (p_c), s	0.4	11.8	1.4	1.1	0.0	12.7	0.1	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	35.0
HCM 2010 LOS	D

Notes

User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	508	294	2123	0	0	987
Future Volume (veh/h)	508	294	2123	0	0	987
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	508	294	2123	0	0	987
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	676	548	2477	0	0	2477
Arrive On Green	0.20	0.20	0.70	0.00	0.00	0.70
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	508	294	2123	0	0	987
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	11.1	7.6	36.0	0.0	0.0	9.3
Cycle Q Clear(g_c), s	11.1	7.6	36.0	0.0	0.0	9.3
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	676	548	2477	0	0	2477
V/C Ratio(X)	0.75	0.54	0.86	0.00	0.00	0.40
Avail Cap(c_a), veh/h	1076	871	2477	0	0	2477
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.51	0.00	0.00	1.00
Uniform Delay (d), s/veh	30.3	28.9	9.0	0.0	0.0	5.0
Incr Delay (d2), s/veh	1.7	0.8	2.2	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	3.0	17.8	0.0	0.0	4.7
LnGrp Delay(d),s/veh	32.0	29.7	11.2	0.0	0.0	5.5
LnGrp LOS	C	C	B			A
Approach Vol, veh/h	802		2123			987
Approach Delay, s/veh	31.2		11.2			5.5
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		60.1				60.1		19.9
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		46.7				46.7		25.0
Max Q Clear Time (g_c+I1), s		38.0				11.3		13.1
Green Ext Time (p_c), s		7.7				8.7		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	13.8
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1371	403	0	1077	970	0
Future Volume (veh/h)	1371	403	0	1077	970	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1371	403	0	1077	970	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1502	691	0	1632	1632	0
Arrive On Green	0.44	0.44	0.00	0.46	0.92	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1371	403	0	1077	970	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	29.9	15.4	0.0	18.9	3.8	0.0
Cycle Q Clear(g_c), s	29.9	15.4	0.0	18.9	3.8	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1502	691	0	1632	1632	0
V/C Ratio(X)	0.91	0.58	0.00	0.66	0.59	0.00
Avail Cap(c_a), veh/h	1717	790	0	1632	1632	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.86	0.00
Uniform Delay (d), s/veh	21.1	17.0	0.0	16.7	1.8	0.0
Incr Delay (d2), s/veh	6.7	0.4	0.0	2.1	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.5	6.8	0.0	9.6	1.6	0.0
LnGrp Delay(d),s/veh	27.9	17.4	0.0	18.8	3.2	0.0
LnGrp LOS	C	B		B	A	
Approach Vol, veh/h	1774			1077	970	
Approach Delay, s/veh	25.5			18.8	3.2	
Approach LOS	C			B	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		41.0		39.0		41.0		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		31.9		39.9		31.9		
Max Q Clear Time (g_c+I1), s		20.9		31.9		5.8		
Green Ext Time (p_c), s		4.2		3.1		5.2		

Intersection Summary	
HCM 2010 Ctrl Delay	17.9
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	14.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	446	75	48	274	23	46	68	62	28	97	76
Future Vol, veh/h	59	446	75	48	274	23	46	68	62	28	97	76
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	446	75	48	274	23	46	68	62	28	97	76
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	15.8	12.8	12.9	13.3
HCM LOS	C	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	26%	21%	0%	26%	0%	14%
Vol Thru, %	39%	79%	75%	74%	86%	48%
Vol Right, %	35%	0%	25%	0%	14%	38%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	176	282	298	185	160	201
LT Vol	46	59	0	48	0	28
Through Vol	68	223	223	137	137	97
RT Vol	62	0	75	0	23	76
Lane Flow Rate	176	282	298	185	160	201
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.325	0.515	0.52	0.354	0.296	0.365
Departure Headway (Hd)	6.654	6.572	6.286	6.895	6.659	6.54
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	540	553	578	522	539	551
Service Time	4.694	4.272	3.986	4.633	4.398	4.58
HCM Lane V/C Ratio	0.326	0.51	0.516	0.354	0.297	0.365
HCM Control Delay	12.9	16	15.6	13.4	12.2	13.3
HCM Lane LOS	B	C	C	B	B	B
HCM 95th-tile Q	1.4	2.9	3	1.6	1.2	1.7

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	79	639	18	20	606	48	5	2	17	65	0	75
Future Vol, veh/h	79	639	18	20	606	48	5	2	17	65	0	75
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	79	639	18	20	606	48	5	2	17	65	0	75

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	685	0	0	673	0	0	1165	1547	370	1205	1532	358
Stage 1	-	-	-	-	-	-	822	822	-	701	701	-
Stage 2	-	-	-	-	-	-	343	725	-	504	831	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	904	-	-	914	-	-	149	113	627	140	116	638
Stage 1	-	-	-	-	-	-	334	386	-	395	439	-
Stage 2	-	-	-	-	-	-	646	428	-	518	383	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	881	-	-	902	-	-	112	90	606	111	92	622
Mov Cap-2 Maneuver	-	-	-	-	-	-	112	90	-	111	92	-
Stage 1	-	-	-	-	-	-	283	327	-	330	413	-
Stage 2	-	-	-	-	-	-	548	402	-	420	324	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.4	20.7	57.9
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	253	881	-	-	902	-	-	198
HCM Lane V/C Ratio	0.095	0.09	-	-	0.022	-	-	0.707
HCM Control Delay (s)	20.7	9.5	0.5	-	9.1	0.1	-	57.9
HCM Lane LOS	C	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.3	0.3	-	-	0.1	-	-	4.5

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	70	11	8	86	2	14	2	14	5	0	1
Future Vol, veh/h	1	70	11	8	86	2	14	2	14	5	0	1
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	70	11	8	86	2	14	2	14	5	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	92	0	0	82	0	0	184	187	78	194	191	92
Stage 1	-	-	-	-	-	-	79	79	-	107	107	-
Stage 2	-	-	-	-	-	-	105	108	-	87	84	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1503	-	-	1515	-	-	777	708	983	765	704	965
Stage 1	-	-	-	-	-	-	930	829	-	898	807	-
Stage 2	-	-	-	-	-	-	901	806	-	921	825	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1498	-	-	1514	-	-	771	700	981	745	696	961
Mov Cap-2 Maneuver	-	-	-	-	-	-	771	700	-	745	696	-
Stage 1	-	-	-	-	-	-	928	827	-	894	800	-
Stage 2	-	-	-	-	-	-	894	799	-	904	823	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.6	9.4	9.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	850	1498	-	-	1514	-	-	774
HCM Lane V/C Ratio	0.035	0.001	-	-	0.005	-	-	0.008
HCM Control Delay (s)	9.4	7.4	0	-	7.4	0	-	9.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	37	6	9	54	9	16	14	18	5	31	7
Future Vol, veh/h	7	37	6	9	54	9	16	14	18	5	31	7
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	37	6	9	54	9	16	14	18	5	31	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	65	0	0	45	0	0	153	139	43	150	138	62
Stage 1	-	-	-	-	-	-	56	56	-	79	79	-
Stage 2	-	-	-	-	-	-	97	83	-	71	59	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1537	-	-	1563	-	-	814	752	1027	818	753	1003
Stage 1	-	-	-	-	-	-	956	848	-	930	829	-
Stage 2	-	-	-	-	-	-	910	826	-	939	846	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1534	-	-	1560	-	-	774	741	1024	784	742	1000
Mov Cap-2 Maneuver	-	-	-	-	-	-	774	741	-	784	742	-
Stage 1	-	-	-	-	-	-	949	842	-	923	822	-
Stage 2	-	-	-	-	-	-	864	819	-	902	840	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.9	9.5	9.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	840	1534	-	-	1560	-	-	780
HCM Lane V/C Ratio	0.057	0.005	-	-	0.006	-	-	0.055
HCM Control Delay (s)	9.5	7.4	0	-	7.3	0	-	9.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	43	2	13	52	2	7	11	13	1	3	5
Future Vol, veh/h	1	43	2	13	52	2	7	11	13	1	3	5
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	43	2	13	52	2	7	11	13	1	3	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	55	0	0	45	0	0	130	127	46	140	127	55
Stage 1	-	-	-	-	-	-	46	46	-	80	80	-
Stage 2	-	-	-	-	-	-	84	81	-	60	47	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1550	-	-	1563	-	-	843	764	1023	830	764	1012
Stage 1	-	-	-	-	-	-	968	857	-	929	828	-
Stage 2	-	-	-	-	-	-	924	828	-	951	856	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1549	-	-	1563	-	-	830	756	1021	802	756	1010
Mov Cap-2 Maneuver	-	-	-	-	-	-	830	756	-	802	756	-
Stage 1	-	-	-	-	-	-	967	856	-	927	820	-
Stage 2	-	-	-	-	-	-	907	820	-	924	855	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.4	9.3	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	868	1549	-	-	1563	-	-	885
HCM Lane V/C Ratio	0.036	0.001	-	-	0.008	-	-	0.01
HCM Control Delay (s)	9.3	7.3	0	-	7.3	0	-	9.1
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	43	0	18	42	3	36
Future Vol, veh/h	43	0	18	42	3	36
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	0	18	42	3	36

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	46	0	125	46
Stage 1	-	-	-	-	46	-
Stage 2	-	-	-	-	79	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1562	-	870	1023
Stage 1	-	-	-	-	976	-
Stage 2	-	-	-	-	944	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1558	-	857	1020
Mov Cap-2 Maneuver	-	-	-	-	857	-
Stage 1	-	-	-	-	974	-
Stage 2	-	-	-	-	932	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1005	-	-	1558	-
HCM Lane V/C Ratio	0.039	-	-	0.012	-
HCM Control Delay (s)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	47	8	5	62	4	2	4	3	2	3	35
Future Vol, veh/h	35	47	8	5	62	4	2	4	3	2	3	35
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	47	8	5	62	4	2	4	3	2	3	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	68	0	0	56	0	0	216	200	52	201	202	67
Stage 1	-	-	-	-	-	-	122	122	-	76	76	-
Stage 2	-	-	-	-	-	-	94	78	-	125	126	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1533	-	-	1549	-	-	740	696	1016	757	694	997
Stage 1	-	-	-	-	-	-	882	795	-	933	832	-
Stage 2	-	-	-	-	-	-	913	830	-	879	792	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1530	-	-	1548	-	-	696	675	1015	735	673	995
Mov Cap-2 Maneuver	-	-	-	-	-	-	696	675	-	735	673	-
Stage 1	-	-	-	-	-	-	860	775	-	909	828	-
Stage 2	-	-	-	-	-	-	874	826	-	851	772	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.9	0.5	9.8	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	766	1530	-	-	1548	-	-	944
HCM Lane V/C Ratio	0.012	0.023	-	-	0.003	-	-	0.042
HCM Control Delay (s)	9.8	7.4	0	-	7.3	0	-	9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	18	6	21	38	49	5	136	15	73	170	43
Future Vol, veh/h	31	18	6	21	38	49	5	136	15	73	170	43
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	18	6	21	38	49	5	136	15	73	170	43
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	8.6	8.6	8.8	10
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	56%	19%	26%
Vol Thru, %	87%	33%	35%	59%
Vol Right, %	10%	11%	45%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	156	55	108	286
LT Vol	5	31	21	73
Through Vol	136	18	38	170
RT Vol	15	6	49	43
Lane Flow Rate	156	55	108	286
Geometry Grp	1	1	1	1
Degree of Util (X)	0.2	0.078	0.143	0.356
Departure Headway (Hd)	4.605	5.132	4.78	4.475
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	778	695	747	804
Service Time	2.643	3.186	2.828	2.508
HCM Lane V/C Ratio	0.201	0.079	0.145	0.356
HCM Control Delay	8.8	8.6	8.6	10
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.3	0.5	1.6

Intersection	
Intersection Delay, s/veh	20.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	89	48	32	29	32	98	13	207	49	92	363	92
Future Vol, veh/h	89	48	32	29	32	98	13	207	49	92	363	92
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	89	48	32	29	32	98	13	207	49	92	363	92
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	12.6	11.8	13.4	28.1
HCM LOS	B	B	B	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	53%	18%	17%
Vol Thru, %	77%	28%	20%	66%
Vol Right, %	18%	19%	62%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	269	169	159	547
LT Vol	13	89	29	92
Through Vol	207	48	32	363
RT Vol	49	32	98	92
Lane Flow Rate	269	169	159	547
Geometry Grp	1	1	1	1
Degree of Util (X)	0.44	0.31	0.279	0.816
Departure Headway (Hd)	5.885	6.597	6.315	5.477
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	616	546	571	667
Service Time	3.885	4.622	4.342	3.477
HCM Lane V/C Ratio	0.437	0.31	0.278	0.82
HCM Control Delay	13.4	12.6	11.8	28.1
HCM Lane LOS	B	B	B	D
HCM 95th-tile Q	2.2	1.3	1.1	8.5

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	11	86	1	11	0	130	3	4	0	0	0
Future Vol, veh/h	2	11	86	1	11	0	130	3	4	0	0	0
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	11	86	1	11	0	130	3	4	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	11	0	0	98	0	0	72	72	55	75	115	11
Stage 1	-	-	-	-	-	-	59	59	-	13	13	-
Stage 2	-	-	-	-	-	-	13	13	-	62	102	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1608	-	-	1495	-	-	919	818	1012	915	775	1070
Stage 1	-	-	-	-	-	-	953	846	-	1007	885	-
Stage 2	-	-	-	-	-	-	1007	885	-	949	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1608	-	-	1494	-	-	917	816	1011	908	773	1070
Mov Cap-2 Maneuver	-	-	-	-	-	-	917	816	-	908	773	-
Stage 1	-	-	-	-	-	-	951	844	-	1006	884	-
Stage 2	-	-	-	-	-	-	1006	884	-	941	809	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.6	9.6	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	917	1608	-	-	1494	-	-	-
HCM Lane V/C Ratio	0.149	0.001	-	-	0.001	-	-	-
HCM Control Delay (s)	9.6	7.2	0	-	7.4	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	47	23	12	958	633	127
Future Vol, veh/h	47	23	12	958	633	127
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	23	12	958	633	127

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1618	636	763	0	-	0
Stage 1	636	-	-	-	-	-
Stage 2	982	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	114	478	850	-	-	-
Stage 1	527	-	-	-	-	-
Stage 2	363	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	110	477	848	-	-	-
Mov Cap-2 Maneuver	297	-	-	-	-	-
Stage 1	510	-	-	-	-	-
Stage 2	362	-	-	-	-	-

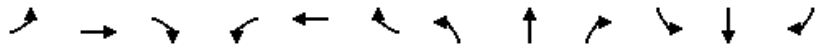
Approach	EB	NB	SB
HCM Control Delay, s	18.4	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	848	-	339	-	-
HCM Lane V/C Ratio	0.014	-	0.206	-	-
HCM Control Delay (s)	9.3	0	18.4	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.8	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	444	12	377	425	0	866
Future Volume (veh/h)	444	12	377	425	0	866
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	444	12	377	0	0	866
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	529	14	1478	0	0	1478
Arrive On Green	0.31	0.31	0.42	0.00	0.00	0.42
Sat Flow, veh/h	1718	46	3725	0	0	3725
Grp Volume(v), veh/h	457	0	377	0	0	866
Grp Sat Flow(s),veh/h/ln	1769	0	1770	0	0	1770
Q Serve(g_s), s	6.6	0.0	1.9	0.0	0.0	5.2
Cycle Q Clear(g_c), s	6.6	0.0	1.9	0.0	0.0	5.2
Prop In Lane	0.97	0.03		0.00	0.00	
Lane Grp Cap(c), veh/h	544	0	1478	0	0	1478
V/C Ratio(X)	0.84	0.00	0.26	0.00	0.00	0.59
Avail Cap(c_a), veh/h	972	0	2268	0	0	2268
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	8.8	0.0	5.2	0.0	0.0	6.1
Incr Delay (d2), s/veh	1.4	0.0	0.1	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.9	0.0	0.0	2.5
LnGrp Delay(d),s/veh	10.2	0.0	5.3	0.0	0.0	6.6
LnGrp LOS	B		A			A
Approach Vol, veh/h	457		377			866
Approach Delay, s/veh	10.2		5.3			6.6
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		15.9		11.4		15.9		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		17.5		15.0		17.5		
Max Q Clear Time (g_c+I1), s		3.9		8.6		7.2		
Green Ext Time (p_c), s		2.3		0.1		4.3		

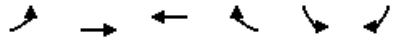
Intersection Summary	
HCM 2010 Ctrl Delay	7.3
HCM 2010 LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	363	490	17	258	69	149	215	17	65	350	16
Future Volume (veh/h)	39	363	490	17	258	69	149	215	17	65	350	16
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.91	0.99		0.91	1.00		0.97	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	39	363	490	17	258	69	149	215	17	65	350	16
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	1100	905	70	899	231	183	264	375	78	417	410
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.25	0.25	0.25	0.27	0.27	0.27
Sat Flow, veh/h	230	3054	1435	79	2496	643	747	1078	1529	289	1559	1532
Grp Volume(v), veh/h	206	196	490	182	0	162	364	0	17	415	0	16
Grp Sat Flow(s),veh/h/ln	1674	1610	1435	1711	0	1507	1825	0	1529	1848	0	1532
Q Serve(g_s), s	0.0	8.4	19.3	0.0	0.0	7.3	17.8	0.0	0.8	20.0	0.0	0.7
Cycle Q Clear(g_c), s	7.5	8.4	19.3	6.6	0.0	7.3	17.8	0.0	0.8	20.0	0.0	0.7
Prop In Lane	0.19		1.00	0.09		0.43	0.41		1.00	0.16		1.00
Lane Grp Cap(c), veh/h	648	580	905	658	0	543	447	0	375	495	0	410
V/C Ratio(X)	0.32	0.34	0.54	0.28	0.00	0.30	0.81	0.00	0.05	0.84	0.00	0.04
Avail Cap(c_a), veh/h	648	580	905	658	0	543	773	0	648	861	0	714
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.7	22.0	11.2	21.4	0.0	21.7	33.6	0.0	27.2	32.6	0.0	25.6
Incr Delay (d2), s/veh	1.3	1.6	2.3	1.0	0.0	1.4	3.6	0.0	0.0	3.9	0.0	0.0
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	4.1	3.9	13.0	3.5	0.0	3.2	9.3	0.0	0.3	10.7	0.0	0.3
LnGrp Delay(d),s/veh	23.0	23.6	13.5	22.5	0.0	23.1	37.2	0.0	27.3	36.5	0.0	25.6
LnGrp LOS	C	C	B	C		C	D		C	D		C
Approach Vol, veh/h		892			344			381			431	
Approach Delay, s/veh		17.9			22.8			36.8			36.1	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		38.0		27.1		38.0		29.3
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		34.0		40.0		34.0		44.0
Max Q Clear Time (g_c+I1), s		21.3		19.8		9.3		22.0
Green Ext Time (p_c), s		3.8		2.3		2.2		2.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.1
HCM 2010 LOS	C



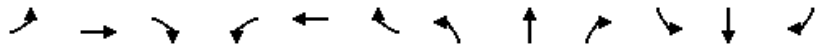
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	411	374	213	555	472	248
Future Volume (veh/h)	411	374	213	555	472	248
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	411	374	213	555	472	248
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	445	1208	684	1018	509	851
Arrive On Green	0.25	0.65	0.37	0.37	0.29	0.29
Sat Flow, veh/h	1774	1863	1863	1533	1774	1583
Grp Volume(v), veh/h	411	374	213	555	472	248
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1533	1774	1583
Q Serve(g_s), s	29.5	11.5	10.7	25.6	33.8	11.2
Cycle Q Clear(g_c), s	29.5	11.5	10.7	25.6	33.8	11.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	445	1208	684	1018	509	851
V/C Ratio(X)	0.92	0.31	0.31	0.55	0.93	0.29
Avail Cap(c_a), veh/h	692	1208	684	1018	771	1085
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	47.8	10.1	29.5	12.2	45.3	16.6
Incr Delay (d2), s/veh	13.0	0.7	1.2	2.1	11.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.1	6.1	5.7	20.5	18.2	13.2
LnGrp Delay(d),s/veh	60.7	10.8	30.7	14.3	56.8	16.7
LnGrp LOS	E	B	C	B	E	B
Approach Vol, veh/h		785	768		720	
Approach Delay, s/veh		36.9	18.9		43.0	
Approach LOS		D	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		89.0		41.7	36.8	52.2		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 85		* 57	51.0	* 30		
Max Q Clear Time (g_c+I1), s		13.5		35.8	31.5	27.6		
Green Ext Time (p_c), s		1.6		1.7	1.2	0.6		

Intersection Summary	
HCM 2010 Ctrl Delay	32.8
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



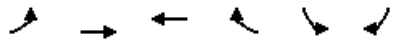
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	58	0	72	22	268	0	874	62	224	699	93
Future Volume (veh/h)	149	58	0	72	22	268	0	874	62	224	699	93
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	149	58	0	72	22	268	0	874	62	224	699	93
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	242	82	0	332	91	839	0	1002	71	527	2034	270
Arrive On Green	0.24	0.24	0.00	0.24	0.24	0.24	0.00	0.30	0.30	0.30	0.65	0.65
Sat Flow, veh/h	694	346	0	1066	386	1556	0	3439	237	1774	3141	418
Grp Volume(v), veh/h	207	0	0	94	0	268	0	462	474	224	394	398
Grp Sat Flow(s),veh/h/ln	1040	0	0	1451	0	1556	0	1770	1814	1774	1770	1789
Q Serve(g_s), s	11.8	0.0	0.0	0.0	0.0	0.0	0.0	19.8	19.8	8.1	8.1	8.1
Cycle Q Clear(g_c), s	15.9	0.0	0.0	4.1	0.0	0.0	0.0	19.8	19.8	8.1	8.1	8.1
Prop In Lane	0.72		0.00	0.77		1.00	0.00		0.13	1.00		0.23
Lane Grp Cap(c), veh/h	324	0	0	424	0	839	0	530	543	527	1146	1159
V/C Ratio(X)	0.64	0.00	0.00	0.22	0.00	0.32	0.00	0.87	0.87	0.43	0.34	0.34
Avail Cap(c_a), veh/h	449	0	0	569	0	997	0	575	590	527	1146	1159
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	0.00	1.00	1.00	0.90	0.90	0.90
Uniform Delay (d), s/veh	30.4	0.0	0.0	24.8	0.0	10.4	0.0	26.6	26.6	22.6	6.4	6.4
Incr Delay (d2), s/veh	1.6	0.0	0.0	0.2	0.0	0.2	0.0	17.7	17.3	0.2	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	4.5	0.0	0.0	1.7	0.0	3.3	0.0	12.2	12.5	4.0	4.1	4.1
LnGrp Delay(d),s/veh	32.0	0.0	0.0	25.0	0.0	10.6	0.0	44.2	43.9	22.8	7.1	7.1
LnGrp LOS	C			C		B		D	D	C	A	A
Approach Vol, veh/h		207			362			936			1016	
Approach Delay, s/veh		32.0			14.3			44.1			10.6	
Approach LOS		C			B			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		56.4		23.6	28.4	28.1		23.6
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		43.7		27.1	14.1	* 26		27.1
Max Q Clear Time (g_c+I1), s		10.1		17.9	10.1	21.8		6.1
Green Ext Time (p_c), s		5.8		0.8	0.1	2.2		1.1

Intersection Summary		
HCM 2010 Ctrl Delay		25.3
HCM 2010 LOS		C

Notes

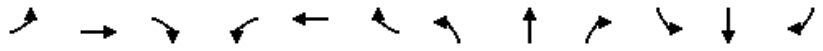
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	566	1699	629	188	524	776
Future Volume (veh/h)	566	1699	629	188	524	776
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	566	1699	629	188	524	776
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	680	2746	1116	326	624	1531
Arrive On Green	0.20	0.54	0.29	0.29	0.35	0.35
Sat Flow, veh/h	3442	5253	4035	1129	1774	2787
Grp Volume(v), veh/h	566	1699	550	267	524	776
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1605	1774	1393
Q Serve(g_s), s	11.7	17.1	10.2	10.5	20.1	12.9
Cycle Q Clear(g_c), s	11.7	17.1	10.2	10.5	20.1	12.9
Prop In Lane	1.00			0.70	1.00	1.00
Lane Grp Cap(c), veh/h	680	2746	978	463	624	1531
V/C Ratio(X)	0.83	0.62	0.56	0.58	0.84	0.51
Avail Cap(c_a), veh/h	836	2746	978	463	766	1754
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	28.5	11.8	22.4	22.5	22.1	10.4
Incr Delay (d2), s/veh	6.0	1.1	2.3	5.2	6.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	8.1	5.0	5.3	11.0	4.9
LnGrp Delay(d),s/veh	34.6	12.8	24.7	27.7	29.0	10.7
LnGrp LOS	C	B	C	C	C	B
Approach Vol, veh/h		2265	817		1300	
Approach Delay, s/veh		18.3	25.7		18.1	
Approach LOS		B	C		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	18.6	25.4				44.0		30.1
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	14.6	18.0				40.0		32.0
Max Q Clear Time (g_c+I1), s	13.7	12.5				19.1		22.1
Green Ext Time (p_c), s	0.9	2.4				12.7		3.9

Intersection Summary	
HCM 2010 Ctrl Delay	19.6
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	464	47	169	31	16	24	124	987	104	34	876	401
Future Volume (veh/h)	464	47	169	31	16	24	124	987	104	34	876	401
Number	3	8	18	7	4	14	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		0.98	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	498	0	169	31	16	24	124	987	104	34	876	401
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	570	0	252	104	39	58	635	2306	1099	44	1113	738
Arrive On Green	0.16	0.00	0.16	0.06	0.06	0.06	0.72	1.00	1.00	0.02	0.31	0.31
Sat Flow, veh/h	3548	0	1572	1774	665	997	1774	3539	1545	1774	3539	1537
Grp Volume(v), veh/h	498	0	169	31	0	40	124	987	104	34	876	401
Grp Sat Flow(s),veh/h/ln	1774	0	1572	1774	0	1662	1774	1770	1545	1774	1770	1537
Q Serve(g_s), s	21.9	0.0	16.2	2.7	0.0	3.7	3.7	0.0	0.0	3.0	36.1	29.6
Cycle Q Clear(g_c), s	21.9	0.0	16.2	2.7	0.0	3.7	3.7	0.0	0.0	3.0	36.1	29.6
Prop In Lane	1.00		1.00	1.00		0.60	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	570	0	252	104	0	97	635	2306	1099	44	1113	738
V/C Ratio(X)	0.87	0.00	0.67	0.30	0.00	0.41	0.20	0.43	0.09	0.78	0.79	0.54
Avail Cap(c_a), veh/h	843	0	373	299	0	280	635	2306	1099	89	1248	796
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.82	0.82	0.82	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.6	0.0	63.2	72.2	0.0	72.7	15.1	0.0	0.0	77.6	50.0	29.8
Incr Delay (d2), s/veh	6.2	0.0	2.3	1.2	0.0	2.1	0.0	0.5	0.1	10.5	5.6	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	11.3	0.0	7.2	1.4	0.0	1.8	1.8	0.2	0.0	1.6	18.5	17.1
LnGrp Delay(d),s/veh	71.7	0.0	65.4	73.4	0.0	74.8	15.2	0.5	0.1	88.1	55.6	32.7
LnGrp LOS	E		E	E		E	B	A	A	F	E	C
Approach Vol, veh/h		667			71			1215			1311	
Approach Delay, s/veh		70.1			74.2			2.0			49.4	
Approach LOS		E			E			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.9	108.8		13.5	61.9	54.9		29.7
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.6	* 4.6		4.0
Max Green Setting (Gmax), s	8.3	70.2		* 27	21.8	* 56		38.0
Max Q Clear Time (g_c+I1), s	5.7	2.0		5.7	5.7	38.1		23.9
Green Ext Time (p_c), s	0.0	22.1		0.2	0.1	12.2		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	36.5
HCM 2010 LOS	D

Notes

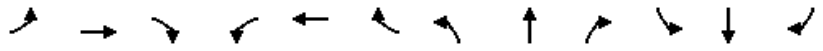
User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	34.7
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	272	68	207	325	33	73	118	214	37	162	55
Future Vol, veh/h	34	272	68	207	325	33	73	118	214	37	162	55
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	272	68	207	325	33	73	118	214	37	162	55
Number of Lanes	1	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	3
HCM Control Delay	30.2	46.5	22.8	34.1
HCM LOS	D	E	C	D

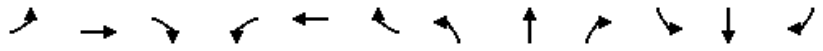
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1
Vol Left, %	38%	0%	100%	0%	0%	100%	0%	15%
Vol Thru, %	62%	0%	0%	100%	0%	0%	91%	64%
Vol Right, %	0%	100%	0%	0%	100%	0%	9%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	191	214	34	272	68	207	358	254
LT Vol	73	0	34	0	0	207	0	37
Through Vol	118	0	0	272	0	0	325	162
RT Vol	0	214	0	0	68	0	33	55
Lane Flow Rate	191	214	34	272	68	207	358	254
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.531	0.54	0.098	0.743	0.172	0.567	0.922	0.71
Departure Headway (Hd)	10.015	9.089	10.352	9.83	9.099	9.864	9.271	10.062
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	361	398	346	367	394	366	390	361
Service Time	7.769	6.842	8.104	7.581	6.85	7.614	7.021	7.814
HCM Lane V/C Ratio	0.529	0.538	0.098	0.741	0.173	0.566	0.918	0.704
HCM Control Delay	23.6	22.1	14.2	36.3	13.7	24.8	59.1	34.1
HCM Lane LOS	C	C	B	E	B	C	F	D
HCM 95th-tile Q	3	3.1	0.3	5.8	0.6	3.4	9.8	5.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	150	23	239	169	181	57	1561	186	262	1300	49
Future Volume (veh/h)	4	150	23	239	169	181	57	1561	186	262	1300	49
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	4	180	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	4	150	0	239	169	181	57	1561	186	262	1300	0
Adj No. of Lanes	0	2	0	0	2	0	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	28	862	0	293	217	246	84	2241	76	385	2143	959
Arrive On Green	0.28	0.28	0.00	0.28	0.28	0.28	0.04	0.46	0.46	0.20	0.62	0.00
Sat Flow, veh/h	31	3254	0	949	794	900	1774	4601	547	1774	3539	1583
Grp Volume(v), veh/h	79	75	0	285	0	304	57	1150	597	262	1300	0
Grp Sat Flow(s),veh/h/ln	1589	1610	0	1131	0	1512	1774	1695	1758	1774	1770	1583
Q Serve(g_s), s	0.3	6.8	0.0	40.9	0.0	34.9	6.1	53.1	53.2	26.5	42.0	0.0
Cycle Q Clear(g_c), s	35.2	6.8	0.0	47.7	0.0	34.9	6.1	53.1	53.2	26.5	42.0	0.0
Prop In Lane	0.05		0.00	0.84		0.60	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	448	441	0	343	0	414	84	1505	812	385	2143	959
V/C Ratio(X)	0.18	0.17	0.00	0.83	0.00	0.73	0.68	0.76	0.74	0.68	0.61	0.00
Avail Cap(c_a), veh/h	535	513	0	402	0	482	120	1559	808	408	2200	984
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.3	54.4	0.0	73.1	0.0	64.9	91.5	55.1	55.1	70.6	24.2	0.0
Incr Delay (d2), s/veh	0.2	0.2	0.0	12.1	0.0	4.9	9.3	3.7	5.9	4.2	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	51.4	180.6	146.7	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	3.2	0.0	16.3	0.0	15.6	5.3	79.7	78.9	13.5	22.3	0.0
LnGrp Delay(d),s/veh	54.4	54.6	0.0	85.1	0.0	69.7	152.2	239.5	207.7	74.9	25.5	0.0
LnGrp LOS	D	D		F		E	F	F	F	E	C	
Approach Vol, veh/h		154			589			1804			1562	
Approach Delay, s/veh		54.5			77.2			226.2			33.8	
Approach LOS		D			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	42.7	92.0		56.7	11.7	123.0		56.7
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	44.0	88.0		61.0	13.0	119.0		61.0
Max Q Clear Time (g_c+I1), s	28.5	55.2		37.2	8.1	44.0		49.7
Green Ext Time (p_c), s	0.7	17.1		0.8	0.0	15.0		3.0

Intersection Summary		
HCM 2010 Ctrl Delay	125.2	
HCM 2010 LOS	F	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	322	57	412	285	165	66	1562	470	237	1285	65
Future Volume (veh/h)	152	322	57	412	285	165	66	1562	470	237	1285	65
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		0.96	1.00		0.96	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	152	322	57	412	285	165	66	1562	470	237	1285	65
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	398	69	468	319	390	83	1943	1074	282	2067	1080
Arrive On Green	0.10	0.13	0.13	0.14	0.17	0.17	0.05	0.55	0.55	0.08	0.58	0.58
Sat Flow, veh/h	1774	2991	522	3442	1863	1522	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	152	189	190	412	285	165	66	1562	470	237	1285	65
Grp Sat Flow(s),veh/h/ln	1774	1770	1743	1721	1863	1522	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	13.5	16.6	17.0	18.8	24.0	14.6	5.9	57.1	21.7	10.9	38.0	2.2
Cycle Q Clear(g_c), s	13.5	16.6	17.0	18.8	24.0	14.6	5.9	57.1	21.7	10.9	38.0	2.2
Prop In Lane	1.00		0.30	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	236	232	468	319	390	83	1943	1074	282	2067	1080
V/C Ratio(X)	0.87	0.80	0.82	0.88	0.89	0.42	0.79	0.80	0.44	0.84	0.62	0.06
Avail Cap(c_a), veh/h	232	287	283	623	395	453	144	1943	1074	344	2067	1080
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	71.3	67.4	67.6	67.9	65.0	50.1	75.6	29.2	11.4	72.5	21.8	8.4
Incr Delay (d2), s/veh	23.2	12.5	14.6	11.0	19.1	0.7	15.3	3.6	1.3	14.5	1.4	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	7.8	8.9	9.1	9.7	14.0	6.2	3.3	28.8	9.7	5.8	19.0	1.0
LnGrp Delay(d),s/veh	94.5	79.9	82.2	78.9	84.1	50.9	90.9	32.8	12.6	87.0	23.2	8.6
LnGrp LOS	F	E	F	E	F	D	F	C	B	F	C	A
Approach Vol, veh/h		531			862			2098			1587	
Approach Delay, s/veh		84.9			75.3			30.1			32.1	
Approach LOS		F			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	17.1	92.0	25.8	25.3	11.5	97.6	19.7	31.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	88.0	29.0	26.0	13.0	91.0	21.0	34.0
Max Q Clear Time (g_c+I1), s	12.9	59.1	20.8	19.0	7.9	40.0	15.5	26.0
Green Ext Time (p_c), s	0.2	17.8	1.0	1.2	0.0	14.4	0.2	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	44.1
HCM 2010 LOS	D

Notes

User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	720	737	2097	0	0	1052
Future Volume (veh/h)	720	737	2097	0	0	1052
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	720	737	2097	0	0	1052
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	1029	833	2114	0	0	2114
Arrive On Green	0.30	0.30	0.60	0.00	0.00	0.60
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	720	737	2097	0	0	1052
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	14.8	20.2	46.8	0.0	0.0	13.6
Cycle Q Clear(g_c), s	14.8	20.2	46.8	0.0	0.0	13.6
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	1029	833	2114	0	0	2114
V/C Ratio(X)	0.70	0.88	0.99	0.00	0.00	0.50
Avail Cap(c_a), veh/h	1076	871	2114	0	0	2114
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.48	0.00	0.00	1.00
Uniform Delay (d), s/veh	24.9	26.7	15.9	0.0	0.0	9.2
Incr Delay (d2), s/veh	1.9	10.5	11.8	0.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	8.9	25.9	0.0	0.0	6.8
LnGrp Delay(d),s/veh	26.8	37.2	27.7	0.0	0.0	10.1
LnGrp LOS	C	D	C			B
Approach Vol, veh/h	1457		2097			1052
Approach Delay, s/veh	32.1		27.7			10.1
Approach LOS	C		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		51.9				51.9		28.1
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		46.7				46.7		25.0
Max Q Clear Time (g_c+I1), s		48.8				15.6		22.2
Green Ext Time (p_c), s		0.0				9.2		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	25.1
HCM 2010 LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1299	451	0	1174	1562	0
Future Volume (veh/h)	1299	451	0	1174	1562	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1299	451	0	1174	1562	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1380	635	0	1757	1757	0
Arrive On Green	0.40	0.40	0.00	0.50	0.99	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1299	451	0	1174	1562	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	29.1	19.1	0.0	20.0	2.1	0.0
Cycle Q Clear(g_c), s	29.1	19.1	0.0	20.0	2.1	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1380	635	0	1757	1757	0
V/C Ratio(X)	0.94	0.71	0.00	0.67	0.89	0.00
Avail Cap(c_a), veh/h	1415	651	0	1757	1757	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.79	0.00
Uniform Delay (d), s/veh	23.1	20.1	0.0	15.2	0.1	0.0
Incr Delay (d2), s/veh	12.2	3.0	0.0	2.0	5.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.0	8.8	0.0	10.1	1.5	0.0
LnGrp Delay(d),s/veh	35.2	23.0	0.0	17.2	5.9	0.0
LnGrp LOS	D	C		B	A	
Approach Vol, veh/h	1750			1174	1562	
Approach Delay, s/veh	32.1			17.2	5.9	
Approach LOS	C			B	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		43.8		36.2		43.8		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		38.9		32.9		38.9		
Max Q Clear Time (g_c+I1), s		22.0		31.1		4.1		
Green Ext Time (p_c), s		5.7		1.0		10.9		

Intersection Summary	
HCM 2010 Ctrl Delay	19.1
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	13.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	290	40	74	366	30	67	103	63	21	99	64
Future Vol, veh/h	31	290	40	74	366	30	67	103	63	21	99	64
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	290	40	74	366	30	67	103	63	21	99	64
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	12.8	14.6	14.3	13
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	29%	18%	0%	29%	0%	11%
Vol Thru, %	44%	82%	78%	71%	86%	54%
Vol Right, %	27%	0%	22%	0%	14%	35%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	233	176	185	257	213	184
LT Vol	67	31	0	74	0	21
Through Vol	103	145	145	183	183	99
RT Vol	63	0	40	0	30	64
Lane Flow Rate	233	176	185	257	213	184
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.422	0.335	0.34	0.484	0.387	0.337
Departure Headway (Hd)	6.524	6.858	6.613	6.781	6.533	6.588
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	552	524	544	535	554	545
Service Time	4.569	4.602	4.357	4.481	4.233	4.637
HCM Lane V/C Ratio	0.422	0.336	0.34	0.48	0.384	0.338
HCM Control Delay	14.3	13	12.7	15.7	13.3	13
HCM Lane LOS	B	B	B	C	B	B
HCM 95th-tile Q	2.1	1.5	1.5	2.6	1.8	1.5

Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	58	785	7	8	368	67	9	6	35	93	2	84
Future Vol, veh/h	58	785	7	8	368	67	9	6	35	93	2	84
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	785	7	8	368	67	9	6	35	93	2	84

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	466	0	0	808	0	0	1122	1403	437	986	1373	249
Stage 1	-	-	-	-	-	-	921	921	-	449	449	-
Stage 2	-	-	-	-	-	-	201	482	-	537	924	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1092	-	-	813	-	-	161	139	567	202	145	751
Stage 1	-	-	-	-	-	-	291	347	-	559	571	-
Stage 2	-	-	-	-	-	-	782	552	-	496	346	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1064	-	-	802	-	-	127	119	548	159	124	732
Mov Cap-2 Maneuver	-	-	-	-	-	-	127	119	-	159	124	-
Stage 1	-	-	-	-	-	-	259	309	-	492	549	-
Stage 2	-	-	-	-	-	-	681	530	-	403	308	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.3	21.3	48.9
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	270	1064	-	-	802	-	-	250
HCM Lane V/C Ratio	0.185	0.055	-	-	0.01	-	-	0.716
HCM Control Delay (s)	21.3	8.6	0.4	-	9.5	0.1	-	48.9
HCM Lane LOS	C	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	0.7	0.2	-	-	0	-	-	4.9

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	3	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	4	0	-	0	4	4
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1618	-	-	-	1018	1080
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1614	-	-	-	1014	1077
Mov Cap-2 Maneuver	-	-	-	-	1014	-
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1614	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	89	25	63	138	1	11	1	69	4	5	0
Future Vol, veh/h	0	89	25	63	138	1	11	1	69	4	5	0
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	89	25	63	138	1	11	1	69	4	5	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	143	0	0	115	0	0	371	372	104	407	384	144
Stage 1	-	-	-	-	-	-	103	103	-	269	269	-
Stage 2	-	-	-	-	-	-	268	269	-	138	115	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1440	-	-	1474	-	-	586	558	951	555	550	903
Stage 1	-	-	-	-	-	-	903	810	-	737	687	-
Stage 2	-	-	-	-	-	-	738	687	-	865	800	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1435	-	-	1473	-	-	560	530	949	494	523	899
Mov Cap-2 Maneuver	-	-	-	-	-	-	560	530	-	494	523	-
Stage 1	-	-	-	-	-	-	902	809	-	735	653	-
Stage 2	-	-	-	-	-	-	698	653	-	800	799	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.4	9.6	12.2
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	860	1435	-	-	1473	-	-	510
HCM Lane V/C Ratio	0.094	-	-	-	0.043	-	-	0.018
HCM Control Delay (s)	9.6	0	-	-	7.6	0	-	12.2
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	71	17	77	101	2	4	10	15	5	47	25
Future Vol, veh/h	6	71	17	77	101	2	4	10	15	5	47	25
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	71	17	77	101	2	4	10	15	5	47	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	90	0	0	387	353	83	363	360	105
Stage 1	-	-	-	-	-	-	94	94	-	258	258	-
Stage 2	-	-	-	-	-	-	293	259	-	105	102	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1486	-	-	1505	-	-	572	572	976	593	567	949
Stage 1	-	-	-	-	-	-	913	817	-	747	694	-
Stage 2	-	-	-	-	-	-	715	694	-	901	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1484	-	-	1502	-	-	495	537	974	549	532	947
Mov Cap-2 Maneuver	-	-	-	-	-	-	495	537	-	549	532	-
Stage 1	-	-	-	-	-	-	908	812	-	743	655	-
Stage 2	-	-	-	-	-	-	611	655	-	872	806	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	3.2	10.5	11.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	689	1484	-	-	1502	-	-	622
HCM Lane V/C Ratio	0.042	0.004	-	-	0.051	-	-	0.124
HCM Control Delay (s)	10.5	7.4	0	-	7.5	0	-	11.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.2	-	-	0.4

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	78	9	56	168	1	9	3	16	3	6	7
Future Vol, veh/h	9	78	9	56	168	1	9	3	16	3	6	7
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	78	9	56	168	1	9	3	16	3	6	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	170	0	0	87	0	0	389	383	85	394	387	171
Stage 1	-	-	-	-	-	-	101	101	-	282	282	-
Stage 2	-	-	-	-	-	-	288	282	-	112	105	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1407	-	-	1509	-	-	570	550	974	566	547	873
Stage 1	-	-	-	-	-	-	905	811	-	725	678	-
Stage 2	-	-	-	-	-	-	720	678	-	893	808	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1406	-	-	1509	-	-	540	523	972	533	520	872
Mov Cap-2 Maneuver	-	-	-	-	-	-	540	523	-	533	520	-
Stage 1	-	-	-	-	-	-	899	805	-	719	650	-
Stage 2	-	-	-	-	-	-	678	650	-	867	802	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	1.9	10.2	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	720	1406	-	-	1509	-	-	635
HCM Lane V/C Ratio	0.039	0.006	-	-	0.037	-	-	0.025
HCM Control Delay (s)	10.2	7.6	0	-	7.5	0	-	10.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	105	2	33	73	2	98
Future Vol, veh/h	105	2	33	73	2	98
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	105	2	33	73	2	98

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	110	0	249	109
Stage 1	-	-	-	-	109	-
Stage 2	-	-	-	-	140	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1480	-	766	945
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	907	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1476	-	746	943
Mov Cap-2 Maneuver	-	-	-	-	746	-
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	885	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	938	-	-	1476	-
HCM Lane V/C Ratio	0.107	-	-	0.022	-
HCM Control Delay (s)	9.3	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

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	84	79	1	2	131	3	3	5	5	5	5	69
Future Vol, veh/h	84	79	1	2	131	3	3	5	5	5	5	69
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	84	79	1	2	131	3	3	5	5	5	5	69

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	136	0	0	81	0	0	424	389	81	392	388	136
Stage 1	-	-	-	-	-	-	249	249	-	139	139	-
Stage 2	-	-	-	-	-	-	175	140	-	253	249	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1448	-	-	1517	-	-	540	546	979	567	547	913
Stage 1	-	-	-	-	-	-	755	701	-	864	782	-
Stage 2	-	-	-	-	-	-	827	781	-	751	701	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1446	-	-	1516	-	-	471	511	978	532	511	911
Mov Cap-2 Maneuver	-	-	-	-	-	-	471	511	-	532	511	-
Stage 1	-	-	-	-	-	-	708	658	-	810	780	-
Stage 2	-	-	-	-	-	-	758	779	-	696	658	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.9	0.1	11	9.8
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	611	1446	-	-	1516	-	-	832
HCM Lane V/C Ratio	0.021	0.058	-	-	0.001	-	-	0.095
HCM Control Delay (s)	11	7.6	0	-	7.4	0	-	9.8
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.3

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	28	6	12	35	47	4	107	26	51	169	29
Future Vol, veh/h	28	28	6	12	35	47	4	107	26	51	169	29
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	28	6	12	35	47	4	107	26	51	169	29
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	8.5	8.3	8.4	9.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	45%	13%	20%
Vol Thru, %	78%	45%	37%	68%
Vol Right, %	19%	10%	50%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	137	62	94	249
LT Vol	4	28	12	51
Through Vol	107	28	35	169
RT Vol	26	6	47	29
Lane Flow Rate	137	62	94	249
Geometry Grp	1	1	1	1
Degree of Util (X)	0.17	0.085	0.12	0.307
Departure Headway (Hd)	4.476	4.956	4.611	4.432
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	801	721	776	812
Service Time	2.506	2.997	2.649	2.458
HCM Lane V/C Ratio	0.171	0.086	0.121	0.307
HCM Control Delay	8.4	8.5	8.3	9.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.3	0.4	1.3

Intersection	
Intersection Delay, s/veh	19.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	88	25	42	75	45	161	26	230	44	49	354	58
Future Vol, veh/h	88	25	42	75	45	161	26	230	44	49	354	58
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	88	25	42	75	45	161	26	230	44	49	354	58
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	13	15.5	16	25.8
HCM LOS	B	C	C	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	57%	27%	11%
Vol Thru, %	77%	16%	16%	77%
Vol Right, %	15%	27%	57%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	300	155	281	461
LT Vol	26	88	75	49
Through Vol	230	25	45	354
RT Vol	44	42	161	58
Lane Flow Rate	300	155	281	461
Geometry Grp	1	1	1	1
Degree of Util (X)	0.522	0.298	0.495	0.764
Departure Headway (Hd)	6.261	6.932	6.348	5.967
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	573	516	565	604
Service Time	4.324	5.009	4.411	4.021
HCM Lane V/C Ratio	0.524	0.3	0.497	0.763
HCM Control Delay	16	13	15.5	25.8
HCM Lane LOS	C	B	C	D
HCM 95th-tile Q	3	1.2	2.7	7

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	15	68	4	17	1	82	1	2	1	3	1
Future Vol, veh/h	1	15	68	4	17	1	82	1	2	1	3	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	15	68	4	17	1	82	1	2	1	3	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	18	0	0	84	0	0	80	78	50	79	112	18
Stage 1	-	-	-	-	-	-	52	52	-	26	26	-
Stage 2	-	-	-	-	-	-	28	26	-	53	86	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1599	-	-	1513	-	-	908	812	1018	910	778	1061
Stage 1	-	-	-	-	-	-	961	852	-	992	874	-
Stage 2	-	-	-	-	-	-	989	874	-	960	824	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1599	-	-	1512	-	-	901	808	1017	905	774	1061
Mov Cap-2 Maneuver	-	-	-	-	-	-	901	808	-	905	774	-
Stage 1	-	-	-	-	-	-	959	850	-	991	871	-
Stage 2	-	-	-	-	-	-	982	871	-	956	822	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.3	9.4	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	902	1599	-	-	1512	-	-	844
HCM Lane V/C Ratio	0.094	0.001	-	-	0.003	-	-	0.006
HCM Control Delay (s)	9.4	7.3	0	-	7.4	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	41	21	22	1016	766	52
Future Vol, veh/h	41	21	22	1016	766	52
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	21	22	1016	766	52

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1829	769	821	0	-	0
Stage 1	769	-	-	-	-	-
Stage 2	1060	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	84	401	808	-	-	-
Stage 1	457	-	-	-	-	-
Stage 2	333	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	78	400	806	-	-	-
Mov Cap-2 Maneuver	259	-	-	-	-	-
Stage 1	427	-	-	-	-	-
Stage 2	332	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.5	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	806	-	294	-	-
HCM Lane V/C Ratio	0.027	-	0.211	-	-
HCM Control Delay (s)	9.6	0	20.5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.8	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	285	22	375	512	0	619
Future Volume (veh/h)	285	22	375	512	0	619
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	285	22	375	0	0	619
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	358	28	1434	0	0	1434
Arrive On Green	0.22	0.22	0.41	0.00	0.00	0.41
Sat Flow, veh/h	1628	126	3725	0	0	3725
Grp Volume(v), veh/h	308	0	375	0	0	619
Grp Sat Flow(s),veh/h/ln	1759	0	1770	0	0	1770
Q Serve(g_s), s	3.3	0.0	1.4	0.0	0.0	2.5
Cycle Q Clear(g_c), s	3.3	0.0	1.4	0.0	0.0	2.5
Prop In Lane	0.93	0.07		0.00	0.00	
Lane Grp Cap(c), veh/h	387	0	1434	0	0	1434
V/C Ratio(X)	0.80	0.00	0.26	0.00	0.00	0.43
Avail Cap(c_a), veh/h	1143	0	3449	0	0	3449
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	7.4	0.0	4.0	0.0	0.0	4.3
Incr Delay (d2), s/veh	1.4	0.0	0.1	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.7	0.0	0.0	1.3
LnGrp Delay(d),s/veh	8.8	0.0	4.1	0.0	0.0	4.5
LnGrp LOS	A		A			A
Approach Vol, veh/h	308		375			619
Approach Delay, s/veh	8.8		4.1			4.5
Approach LOS	A		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		12.6		7.4		12.6		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		19.5		13.0		19.5		
Max Q Clear Time (g_c+I1), s		3.4		5.3		4.5		
Green Ext Time (p_c), s		2.5		0.1		3.6		

Intersection Summary	
HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	345	300	14	419	84	175	170	13	68	320	76
Future Volume (veh/h)	47	345	300	14	419	84	175	170	13	68	320	76
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.91	0.99		0.91	1.00		0.96	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	47	345	300	14	419	84	175	170	13	68	320	76
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	1017	928	53	1068	208	217	211	359	82	388	390
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.24	0.24	0.24	0.25	0.25	0.25
Sat Flow, veh/h	268	2643	1442	36	2776	541	921	895	1527	324	1523	1530
Grp Volume(v), veh/h	179	213	300	278	0	239	345	0	13	388	0	76
Grp Sat Flow(s),veh/h/ln	1300	1610	1442	1812	0	1540	1817	0	1527	1847	0	1530
Q Serve(g_s), s	1.7	9.0	9.6	0.0	0.0	10.9	17.2	0.0	0.6	19.1	0.0	3.7
Cycle Q Clear(g_c), s	12.5	9.0	9.6	10.4	0.0	10.9	17.2	0.0	0.6	19.1	0.0	3.7
Prop In Lane	0.26		1.00	0.05		0.35	0.51		1.00	0.18		1.00
Lane Grp Cap(c), veh/h	548	620	928	737	0	593	428	0	359	471	0	390
V/C Ratio(X)	0.33	0.34	0.32	0.38	0.00	0.40	0.81	0.00	0.04	0.82	0.00	0.19
Avail Cap(c_a), veh/h	548	620	928	737	0	593	737	0	620	807	0	669
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.7	21.0	8.8	21.4	0.0	21.5	34.7	0.0	28.3	33.8	0.0	28.1
Incr Delay (d2), s/veh	1.6	1.5	0.9	1.5	0.0	2.0	3.6	0.0	0.0	3.7	0.0	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	3.8	4.3	6.4	5.6	0.0	4.9	9.1	0.0	0.3	10.2	0.0	1.6
LnGrp Delay(d),s/veh	22.3	22.5	9.7	22.8	0.0	23.6	38.3	0.0	28.4	37.5	0.0	28.3
LnGrp LOS	C	C	A	C		C	D		C	D		C
Approach Vol, veh/h		692			517			358			464	
Approach Delay, s/veh		16.9			23.2			38.0			36.0	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		41.0		26.6		41.0		28.5
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		37.0		39.0		37.0		42.0
Max Q Clear Time (g_c+I1), s		14.5		19.2		12.9		21.1
Green Ext Time (p_c), s		3.7		2.2		3.4		2.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.6
HCM 2010 LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	405	308	391	643	424	360
Future Volume (veh/h)	405	308	391	643	424	360
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	405	308	391	643	424	360
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	431	1257	747	1028	462	798
Arrive On Green	0.24	0.67	0.40	0.40	0.26	0.26
Sat Flow, veh/h	1774	1863	1863	1534	1774	1583
Grp Volume(v), veh/h	405	308	391	643	424	360
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1534	1774	1583
Q Serve(g_s), s	29.1	8.4	20.7	31.8	30.2	19.0
Cycle Q Clear(g_c), s	29.1	8.4	20.7	31.8	30.2	19.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	431	1257	747	1028	462	798
V/C Ratio(X)	0.94	0.25	0.52	0.63	0.92	0.45
Avail Cap(c_a), veh/h	573	1257	747	1028	597	918
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	48.3	8.2	29.6	12.8	46.7	20.7
Incr Delay (d2), s/veh	17.9	0.5	2.6	2.9	15.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.4	4.4	11.2	23.9	16.8	19.5
LnGrp Delay(d),s/veh	66.2	8.7	32.2	15.7	62.3	21.0
LnGrp LOS	E	A	C	B	E	C
Approach Vol, veh/h		713	1034		784	
Approach Delay, s/veh		41.4	21.9		43.4	
Approach LOS		D	C		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		92.0		38.1	35.6	56.4		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 88		* 44	42.0	* 42		
Max Q Clear Time (g_c+I1), s		10.4		32.2	31.1	33.8		
Green Ext Time (p_c), s		1.3		1.7	0.5	2.2		

Intersection Summary	
HCM 2010 Ctrl Delay	34.0
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	16	3	45	20	218	2	944	61	137	774	45
Future Volume (veh/h)	60	16	3	45	20	218	2	944	61	137	774	45
Number	7	4	14	3	8	18	1	6	16	5	2	12
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		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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	60	16	3	45	20	218	2	944	61	137	774	45
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	119	28	4	159	63	898	26	1106	71	806	2783	162
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.34	0.34	0.34	0.45	0.82	0.82
Sat Flow, veh/h	637	240	35	999	546	1547	1	3298	213	1774	3400	198
Grp Volume(v), veh/h	79	0	0	65	0	218	534	0	473	137	403	416
Grp Sat Flow(s),veh/h/ln	911	0	0	1546	0	1547	1861	0	1651	1774	1770	1828
Q Serve(g_s), s	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.4	6.4	7.5	7.5
Cycle Q Clear(g_c), s	13.0	0.0	0.0	5.3	0.0	0.0	37.3	0.0	37.4	6.4	7.5	7.5
Prop In Lane	0.76		0.04	0.69		1.00	0.00		0.13	1.00		0.11
Lane Grp Cap(c), veh/h	151	0	0	222	0	898	650	0	554	806	1449	1496
V/C Ratio(X)	0.52	0.00	0.00	0.29	0.00	0.24	0.82	0.00	0.86	0.17	0.28	0.28
Avail Cap(c_a), veh/h	277	0	0	375	0	1055	993	0	860	806	1449	1496
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	0.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	62.2	0.0	0.0	57.0	0.0	15.0	43.3	0.0	43.4	22.6	3.0	3.0
Incr Delay (d2), s/veh	2.1	0.0	0.0	0.5	0.0	0.1	11.2	0.0	15.5	0.0	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.0	2.4	0.0	4.1	21.3	0.0	19.5	3.1	3.7	3.8
LnGrp Delay(d),s/veh	64.2	0.0	0.0	57.5	0.0	15.1	54.5	0.0	58.9	22.6	3.3	3.3
LnGrp LOS	E			E		B	D		E	C	A	A
Approach Vol, veh/h		79			283			1007			956	
Approach Delay, s/veh		64.2			24.9			56.6			6.1	
Approach LOS		E			C			E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		119.2		20.8	68.2	51.0		20.8
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		100.4		30.4	23.9	* 73		30.4
Max Q Clear Time (g_c+I1), s		9.5		15.0	8.4	39.4		7.3
Green Ext Time (p_c), s		6.3		0.3	0.1	7.5		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	32.2
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	564	801	1377	319	272	559
Future Volume (veh/h)	564	801	1377	319	272	559
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	564	801	1377	319	272	559
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	682	3465	1738	402	355	1110
Arrive On Green	0.20	0.68	0.42	0.42	0.20	0.20
Sat Flow, veh/h	3442	5253	4266	947	1774	2787
Grp Volume(v), veh/h	564	801	1139	557	272	559
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1655	1774	1393
Q Serve(g_s), s	10.6	4.0	19.7	19.7	9.8	10.2
Cycle Q Clear(g_c), s	10.6	4.0	19.7	19.7	9.8	10.2
Prop In Lane	1.00			0.57	1.00	1.00
Lane Grp Cap(c), veh/h	682	3465	1437	702	355	1110
V/C Ratio(X)	0.83	0.23	0.79	0.79	0.77	0.50
Avail Cap(c_a), veh/h	816	3465	1437	702	420	1213
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	26.0	4.1	16.9	16.9	25.5	15.3
Incr Delay (d2), s/veh	6.0	0.2	4.5	9.0	7.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	1.9	10.1	10.7	5.4	3.9
LnGrp Delay(d),s/veh	32.0	4.2	21.4	25.9	32.5	15.6
LnGrp LOS	C	A	C	C	C	B
Approach Vol, veh/h		1365	1696		831	
Approach Delay, s/veh		15.7	22.9		21.1	
Approach LOS		B	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	17.4	32.6				50.0		17.5
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	26.0				46.0		16.0
Max Q Clear Time (g_c+I1), s	12.6	21.7				6.0		12.2
Green Ext Time (p_c), s	0.8	3.4				6.4		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	20.0
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	485	25	94	69	31	66	186	961	67	26	751	335
Future Volume (veh/h)	485	25	94	69	31	66	186	961	67	26	751	335
Number	3	8	18	7	4	14	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		0.97	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	503	0	94	69	31	66	186	961	67	26	751	335
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	622	0	276	163	48	103	124	1927	985	36	1752	1041
Arrive On Green	0.18	0.00	0.18	0.09	0.09	0.09	0.07	0.54	0.54	0.02	0.49	0.49
Sat Flow, veh/h	3548	0	1573	1774	526	1121	1774	3539	1543	1774	3539	1543
Grp Volume(v), veh/h	503	0	94	69	0	97	186	961	67	26	751	335
Grp Sat Flow(s),veh/h/ln	1774	0	1573	1774	0	1647	1774	1770	1543	1774	1770	1543
Q Serve(g_s), s	13.6	0.0	5.2	3.7	0.0	5.7	7.0	17.0	1.7	1.5	13.6	9.1
Cycle Q Clear(g_c), s	13.6	0.0	5.2	3.7	0.0	5.7	7.0	17.0	1.7	1.5	13.6	9.1
Prop In Lane	1.00		1.00	1.00		0.68	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	622	0	276	163	0	151	124	1927	985	36	1752	1041
V/C Ratio(X)	0.81	0.00	0.34	0.42	0.00	0.64	1.50	0.50	0.07	0.71	0.43	0.32
Avail Cap(c_a), veh/h	958	0	425	479	0	445	124	1927	985	71	1752	1041
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	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	0.0	36.2	42.9	0.0	43.8	46.5	14.2	6.9	48.7	16.2	6.9
Incr Delay (d2), s/veh	2.4	0.0	0.5	1.3	0.0	3.4	257.4	0.8	0.1	9.2	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	0.0	2.3	1.9	0.0	2.7	12.3	8.5	0.9	0.8	6.8	6.2
LnGrp Delay(d),s/veh	42.0	0.0	36.7	44.2	0.0	47.2	303.9	15.1	7.0	57.8	17.0	7.8
LnGrp LOS	D		D	D		D	F	B	A	E	B	A
Approach Vol, veh/h		597			166			1214			1112	
Approach Delay, s/veh		41.2			46.0			58.9			15.1	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.1	59.0		13.4	11.0	54.1		21.5
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.0	4.6		4.0
Max Green Setting (Gmax), s	4.0	25.2		* 27	7.0	22.2		27.0
Max Q Clear Time (g_c+I1), s	3.5	19.0		7.7	9.0	15.6		15.6
Green Ext Time (p_c), s	0.0	4.6		0.5	0.0	4.7		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	39.0
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	36.3
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	379	87	182	245	21	88	147	220	39	123	28
Future Vol, veh/h	45	379	87	182	245	21	88	147	220	39	123	28
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	45	379	87	182	245	21	88	147	220	39	123	28
Number of Lanes	1	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	3
HCM Control Delay	57.2	28.3	25.2	25.2
HCM LOS	F	D	D	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1
Vol Left, %	37%	0%	100%	0%	0%	100%	0%	21%
Vol Thru, %	63%	0%	0%	100%	0%	0%	92%	65%
Vol Right, %	0%	100%	0%	0%	100%	0%	8%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	235	220	45	379	87	182	266	190
LT Vol	88	0	45	0	0	182	0	39
Through Vol	147	0	0	379	0	0	245	123
RT Vol	0	220	0	0	87	0	21	28
Lane Flow Rate	235	220	45	379	87	182	266	190
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.64	0.543	0.123	0.982	0.208	0.511	0.703	0.549
Departure Headway (Hd)	9.799	8.878	9.851	9.331	8.603	10.101	9.518	10.409
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	369	407	365	390	418	357	380	346
Service Time	7.522	6.601	7.572	7.052	6.324	7.857	7.273	8.172
HCM Lane V/C Ratio	0.637	0.541	0.123	0.972	0.208	0.51	0.7	0.549
HCM Control Delay	28.4	21.7	14	72.4	13.6	23	32	25.2
HCM Lane LOS	D	C	B	F	B	C	D	D
HCM 95th-tile Q	4.2	3.1	0.4	11.5	0.8	2.8	5.2	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	158	32	238	121	257	46	1198	125	147	1384	20
Future Volume (veh/h)	21	158	32	238	121	257	46	1198	125	147	1384	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	85	0	0	140	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	21	158	0	238	121	257	46	1198	125	147	1384	0
Adj No. of Lanes	0	2	0	0	2	0	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	36	601	0	129	697	182	59	2373	158	214	2004	896
Arrive On Green	0.30	0.30	0.00	0.30	0.30	0.30	0.03	0.51	0.51	0.13	0.60	0.00
Sat Flow, veh/h	157	2262	0	871	498	1193	1774	4672	487	1774	3539	1583
Grp Volume(v), veh/h	74	105	0	303	0	313	46	869	454	147	1384	0
Grp Sat Flow(s),veh/h/ln	724	1610	0	1107	0	1454	1774	1695	1770	1774	1770	1583
Q Serve(g_s), s	1.9	8.9	0.0	40.9	0.0	35.2	4.7	31.4	31.4	14.5	47.5	0.0
Cycle Q Clear(g_c), s	37.1	8.9	0.0	49.8	0.0	35.2	4.7	31.4	31.4	14.5	47.5	0.0
Prop In Lane	0.28		0.00	0.79		0.82	1.00		0.28	1.00		1.00
Lane Grp Cap(c), veh/h	36	546	0	488	0	532	59	1643	877	214	2004	896
V/C Ratio(X)	2.06	0.19	0.00	0.62	0.00	0.59	0.78	0.53	0.52	0.69	0.69	0.00
Avail Cap(c_a), veh/h	368	621	0	480	0	561	116	1714	894	280	2116	947
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	99.8	46.5	0.0	71.1	0.0	61.4	93.4	42.4	40.9	82.0	30.3	0.0
Incr Delay (d2), s/veh	495.9	0.2	0.0	2.5	0.0	1.5	19.8	1.2	2.2	4.6	2.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	144.3	0.0	111.4	0.0	49.3	42.2	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	5.5	0.0	45.5	0.0	42.1	2.8	41.3	40.9	7.9	27.0	0.0
LnGrp Delay(d),s/veh	595.7	46.7	0.0	217.8	0.0	174.3	113.2	92.9	85.3	86.6	32.2	0.0
LnGrp LOS	F	D		F		F	F	F	F	F	C	
Approach Vol, veh/h		179			616			1369			1531	
Approach Delay, s/veh		274.3			195.7			91.1			37.5	
Approach LOS		F			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	27.1	97.0		59.9	10.1	114.0		59.9
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	29.0	93.0		71.0	12.0	110.0		71.0
Max Q Clear Time (g_c+I1), s	16.5	33.4		39.1	6.7	49.5		51.8
Green Ext Time (p_c), s	0.3	13.3		1.1	0.0	16.4		4.1

Intersection Summary	
HCM 2010 Ctrl Delay	95.2
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	335	26	510	297	293	70	1030	479	258	1333	69
Future Volume (veh/h)	129	335	26	510	297	293	70	1030	479	258	1333	69
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		0.96	1.00		0.97	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	129	335	26	510	297	293	70	1030	479	258	1333	69
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	411	32	589	385	471	89	1703	1023	336	1870	977
Arrive On Green	0.09	0.12	0.12	0.17	0.21	0.21	0.05	0.48	0.48	0.10	0.53	0.53
Sat Flow, veh/h	1774	3317	256	3442	1863	1530	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	129	178	183	510	297	293	70	1030	479	258	1333	69
Grp Sat Flow(s),veh/h/ln	1774	1770	1803	1721	1863	1530	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	9.1	12.4	12.6	18.3	19.1	6.1	4.9	27.0	8.7	9.3	36.1	2.2
Cycle Q Clear(g_c), s	9.1	12.4	12.6	18.3	19.1	6.1	4.9	27.0	8.7	9.3	36.1	2.2
Prop In Lane	1.00		0.14	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	157	219	224	589	385	471	89	1703	1023	336	1870	977
V/C Ratio(X)	0.82	0.81	0.82	0.87	0.77	0.62	0.78	0.60	0.47	0.77	0.71	0.07
Avail Cap(c_a), veh/h	238	293	299	814	500	565	154	1703	1023	461	1870	977
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	56.8	54.1	54.2	51.1	47.5	23.1	59.5	24.1	3.7	55.8	22.6	9.7
Incr Delay (d2), s/veh	12.9	11.8	12.6	7.3	5.5	1.5	13.7	1.6	1.5	5.2	2.3	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	5.0	6.8	7.0	9.3	10.4	8.3	2.8	13.5	4.1	4.6	18.2	1.0
LnGrp Delay(d),s/veh	69.8	65.8	66.7	58.5	53.0	24.7	73.2	25.7	5.3	61.0	25.0	9.9
LnGrp LOS	E	E	E	E	D	C	E	C	A	E	C	A
Approach Vol, veh/h		490			1100			1579			1660	
Approach Delay, s/veh		67.2			48.0			21.6			29.9	
Approach LOS		E			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	16.4	65.0	25.7	19.7	10.4	71.0	15.2	30.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	61.0	30.0	21.0	11.0	67.0	17.0	34.0
Max Q Clear Time (g_c+I1), s	11.3	29.0	20.3	14.6	6.9	38.1	11.1	21.1
Green Ext Time (p_c), s	0.4	11.8	1.4	1.1	0.0	12.7	0.1	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	35.1
HCM 2010 LOS	D

Notes

User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	510	294	2123	0	0	987
Future Volume (veh/h)	510	294	2123	0	0	987
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	510	294	2123	0	0	987
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	678	549	2475	0	0	2475
Arrive On Green	0.20	0.20	0.70	0.00	0.00	0.70
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	510	294	2123	0	0	987
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	11.2	7.6	36.1	0.0	0.0	9.3
Cycle Q Clear(g_c), s	11.2	7.6	36.1	0.0	0.0	9.3
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	678	549	2475	0	0	2475
V/C Ratio(X)	0.75	0.54	0.86	0.00	0.00	0.40
Avail Cap(c_a), veh/h	1076	871	2475	0	0	2475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.51	0.00	0.00	1.00
Uniform Delay (d), s/veh	30.3	28.8	9.0	0.0	0.0	5.0
Incr Delay (d2), s/veh	1.7	0.8	2.2	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	3.0	17.8	0.0	0.0	4.7
LnGrp Delay(d),s/veh	32.0	29.6	11.2	0.0	0.0	5.5
LnGrp LOS	C	C	B			A
Approach Vol, veh/h	804		2123			987
Approach Delay, s/veh	31.1		11.2			5.5
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		60.0				60.0		20.0
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		46.7				46.7		25.0
Max Q Clear Time (g_c+I1), s		38.1				11.3		13.2
Green Ext Time (p_c), s		7.7				8.7		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	13.9
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1371	403	0	1077	973	0
Future Volume (veh/h)	1371	403	0	1077	973	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1371	403	0	1077	973	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1502	691	0	1632	1632	0
Arrive On Green	0.44	0.44	0.00	0.46	0.92	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1371	403	0	1077	973	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	29.9	15.4	0.0	18.9	3.8	0.0
Cycle Q Clear(g_c), s	29.9	15.4	0.0	18.9	3.8	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1502	691	0	1632	1632	0
V/C Ratio(X)	0.91	0.58	0.00	0.66	0.60	0.00
Avail Cap(c_a), veh/h	1717	790	0	1632	1632	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.86	0.00
Uniform Delay (d), s/veh	21.1	17.0	0.0	16.7	1.8	0.0
Incr Delay (d2), s/veh	6.7	0.4	0.0	2.1	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.5	6.8	0.0	9.6	1.6	0.0
LnGrp Delay(d),s/veh	27.9	17.4	0.0	18.8	3.2	0.0
LnGrp LOS	C	B		B	A	
Approach Vol, veh/h	1774			1077	973	
Approach Delay, s/veh	25.5			18.8	3.2	
Approach LOS	C			B	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		41.0		39.0		41.0		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		31.9		39.9		31.9		
Max Q Clear Time (g_c+I1), s		20.9		31.9		5.8		
Green Ext Time (p_c), s		4.2		3.1		5.2		

Intersection Summary	
HCM 2010 Ctrl Delay	17.9
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	14.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	447	75	48	275	23	46	68	62	28	97	76
Future Vol, veh/h	59	447	75	48	275	23	46	68	62	28	97	76
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	447	75	48	275	23	46	68	62	28	97	76
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	15.9	12.8	12.9	13.3
HCM LOS	C	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	26%	21%	0%	26%	0%	14%
Vol Thru, %	39%	79%	75%	74%	86%	48%
Vol Right, %	35%	0%	25%	0%	14%	38%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	176	283	299	186	161	201
LT Vol	46	59	0	48	0	28
Through Vol	68	224	224	138	138	97
RT Vol	62	0	75	0	23	76
Lane Flow Rate	176	282	298	186	160	201
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.326	0.516	0.522	0.355	0.297	0.366
Departure Headway (Hd)	6.66	6.578	6.292	6.897	6.662	6.547
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	540	551	576	521	539	549
Service Time	4.702	4.278	3.992	4.64	4.405	4.587
HCM Lane V/C Ratio	0.326	0.512	0.517	0.357	0.297	0.366
HCM Control Delay	12.9	16.1	15.7	13.4	12.2	13.3
HCM Lane LOS	B	C	C	B	B	B
HCM 95th-tile Q	1.4	2.9	3	1.6	1.2	1.7

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	81	639	18	20	606	48	5	2	17	65	0	77
Future Vol, veh/h	81	639	18	20	606	48	5	2	17	65	0	77
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	81	639	18	20	606	48	5	2	17	65	0	77

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	685	0	0	673	0	0	1169	1551	370	1209	1536	358
Stage 1	-	-	-	-	-	-	826	826	-	701	701	-
Stage 2	-	-	-	-	-	-	343	725	-	508	835	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	904	-	-	914	-	-	148	113	627	139	115	638
Stage 1	-	-	-	-	-	-	332	385	-	395	439	-
Stage 2	-	-	-	-	-	-	646	428	-	516	381	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	881	-	-	902	-	-	111	90	606	110	91	622
Mov Cap-2 Maneuver	-	-	-	-	-	-	111	90	-	110	91	-
Stage 1	-	-	-	-	-	-	280	325	-	329	413	-
Stage 2	-	-	-	-	-	-	546	402	-	417	322	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.4	20.8	58.5
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	252	881	-	-	902	-	-	199
HCM Lane V/C Ratio	0.095	0.092	-	-	0.022	-	-	0.714
HCM Control Delay (s)	20.8	9.5	0.5	-	9.1	0.1	-	58.5
HCM Lane LOS	C	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.3	0.3	-	-	0.1	-	-	4.6

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	74	11	8	90	2	14	2	14	5	0	1
Future Vol, veh/h	1	74	11	8	90	2	14	2	14	5	0	1
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	74	11	8	90	2	14	2	14	5	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	96	0	0	86	0	0	192	195	82	202	199	96
Stage 1	-	-	-	-	-	-	83	83	-	111	111	-
Stage 2	-	-	-	-	-	-	109	112	-	91	88	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1498	-	-	1510	-	-	768	700	978	756	697	960
Stage 1	-	-	-	-	-	-	925	826	-	894	804	-
Stage 2	-	-	-	-	-	-	896	803	-	916	822	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1493	-	-	1509	-	-	762	692	976	736	689	956
Mov Cap-2 Maneuver	-	-	-	-	-	-	762	692	-	736	689	-
Stage 1	-	-	-	-	-	-	923	824	-	890	797	-
Stage 2	-	-	-	-	-	-	889	796	-	899	820	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.6	9.4	9.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	843	1493	-	-	1509	-	-	765
HCM Lane V/C Ratio	0.036	0.001	-	-	0.005	-	-	0.008
HCM Control Delay (s)	9.4	7.4	0	-	7.4	0	-	9.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	40	6	9	57	9	16	14	18	5	31	7
Future Vol, veh/h	7	40	6	9	57	9	16	14	18	5	31	7
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	40	6	9	57	9	16	14	18	5	31	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	68	0	0	48	0	0	159	145	46	156	144	65
Stage 1	-	-	-	-	-	-	59	59	-	82	82	-
Stage 2	-	-	-	-	-	-	100	86	-	74	62	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1533	-	-	1559	-	-	807	746	1023	810	747	999
Stage 1	-	-	-	-	-	-	953	846	-	926	827	-
Stage 2	-	-	-	-	-	-	906	824	-	935	843	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1530	-	-	1556	-	-	767	735	1020	776	736	997
Mov Cap-2 Maneuver	-	-	-	-	-	-	767	735	-	776	736	-
Stage 1	-	-	-	-	-	-	946	840	-	920	820	-
Stage 2	-	-	-	-	-	-	860	817	-	898	837	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.9	9.6	9.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	834	1530	-	-	1556	-	-	774
HCM Lane V/C Ratio	0.058	0.005	-	-	0.006	-	-	0.056
HCM Control Delay (s)	9.6	7.4	0	-	7.3	0	-	9.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	46	2	13	55	2	7	11	13	1	3	5
Future Vol, veh/h	1	46	2	13	55	2	7	11	13	1	3	5
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	46	2	13	55	2	7	11	13	1	3	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	58	0	0	48	0	0	136	133	49	146	133	58
Stage 1	-	-	-	-	-	-	49	49	-	83	83	-
Stage 2	-	-	-	-	-	-	87	84	-	63	50	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1546	-	-	1559	-	-	835	758	1020	823	758	1008
Stage 1	-	-	-	-	-	-	964	854	-	925	826	-
Stage 2	-	-	-	-	-	-	921	825	-	948	853	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1545	-	-	1559	-	-	822	750	1018	795	750	1006
Mov Cap-2 Maneuver	-	-	-	-	-	-	822	750	-	795	750	-
Stage 1	-	-	-	-	-	-	963	853	-	923	818	-
Stage 2	-	-	-	-	-	-	904	817	-	921	852	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.4	9.3	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	862	1545	-	-	1559	-	-	880
HCM Lane V/C Ratio	0.036	0.001	-	-	0.008	-	-	0.01
HCM Control Delay (s)	9.3	7.3	0	-	7.3	0	-	9.1
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	44	0	18	42	3	36
Future Vol, veh/h	44	0	18	42	3	36
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	0	18	42	3	36

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	47	0	126	47
Stage 1	-	-	-	-	47	-
Stage 2	-	-	-	-	79	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1560	-	889	1022
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	957	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1556	-	876	1019
Mov Cap-2 Maneuver	-	-	-	-	876	-
Stage 1	-	-	-	-	973	-
Stage 2	-	-	-	-	945	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1006	-	-	1556	-
HCM Lane V/C Ratio	0.039	-	-	0.012	-
HCM Control Delay (s)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	36	50	8	5	65	4	2	4	3	2	3	35
Future Vol, veh/h	36	50	8	5	65	4	2	4	3	2	3	35
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	50	8	5	65	4	2	4	3	2	3	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	71	0	0	59	0	0	224	208	55	209	210	70
Stage 1	-	-	-	-	-	-	127	127	-	79	79	-
Stage 2	-	-	-	-	-	-	97	81	-	130	131	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1529	-	-	1545	-	-	732	689	1012	748	687	993
Stage 1	-	-	-	-	-	-	877	791	-	930	829	-
Stage 2	-	-	-	-	-	-	910	828	-	874	788	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1526	-	-	1544	-	-	688	668	1011	726	666	991
Mov Cap-2 Maneuver	-	-	-	-	-	-	688	668	-	726	666	-
Stage 1	-	-	-	-	-	-	855	771	-	906	825	-
Stage 2	-	-	-	-	-	-	871	824	-	846	768	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.8	0.5	9.8	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	759	1526	-	-	1544	-	-	939
HCM Lane V/C Ratio	0.012	0.024	-	-	0.003	-	-	0.043
HCM Control Delay (s)	9.8	7.4	0	-	7.3	0	-	9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	21	7	18	44	56	6	136	13	93	215	54
Future Vol, veh/h	36	21	7	18	44	56	6	136	13	93	215	54
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	21	7	18	44	56	6	136	13	93	215	54
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	9.1	11.4
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	56%	15%	26%
Vol Thru, %	88%	33%	37%	59%
Vol Right, %	8%	11%	47%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	155	64	118	362
LT Vol	6	36	18	93
Through Vol	136	21	44	215
RT Vol	13	7	56	54
Lane Flow Rate	155	64	118	362
Geometry Grp	1	1	1	1
Degree of Util (X)	0.205	0.095	0.163	0.456
Departure Headway (Hd)	4.765	5.338	4.958	4.539
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	749	666	719	789
Service Time	2.824	3.41	3.023	2.588
HCM Lane V/C Ratio	0.207	0.096	0.164	0.459
HCM Control Delay	9.1	9	9	11.4
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.8	0.3	0.6	2.4

Intersection	
Intersection Delay, s/veh	39.5
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	102	48	37	21	31	108	19	306	55	99	413	105
Future Vol, veh/h	102	48	37	21	31	108	19	306	55	99	413	105
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	102	48	37	21	31	108	19	306	55	99	413	105
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	15	13.5	21.4	64.8
HCM LOS	B	B	C	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	55%	13%	16%
Vol Thru, %	81%	26%	19%	67%
Vol Right, %	14%	20%	68%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	380	187	160	617
LT Vol	19	102	21	99
Through Vol	306	48	31	413
RT Vol	55	37	108	105
Lane Flow Rate	380	187	160	617
Geometry Grp	1	1	1	1
Degree of Util (X)	0.668	0.382	0.316	1.015
Departure Headway (Hd)	6.333	7.358	7.221	5.92
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	566	486	501	611
Service Time	4.413	5.456	5.221	3.985
HCM Lane V/C Ratio	0.671	0.385	0.319	1.01
HCM Control Delay	21.4	15	13.5	64.8
HCM Lane LOS	C	B	B	F
HCM 95th-tile Q	5	1.8	1.3	15.7

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	13	85	1	13	0	135	3	5	0	0	0
Future Vol, veh/h	2	13	85	1	13	0	135	3	5	0	0	0
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	13	85	1	13	0	135	3	5	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	13	0	0	99	0	0	76	76	57	79	118	13
Stage 1	-	-	-	-	-	-	61	61	-	15	15	-
Stage 2	-	-	-	-	-	-	15	15	-	64	103	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1606	-	-	1494	-	-	914	814	1009	910	772	1067
Stage 1	-	-	-	-	-	-	950	844	-	1005	883	-
Stage 2	-	-	-	-	-	-	1005	883	-	947	810	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1606	-	-	1493	-	-	912	812	1008	902	770	1067
Mov Cap-2 Maneuver	-	-	-	-	-	-	912	812	-	902	770	-
Stage 1	-	-	-	-	-	-	948	842	-	1004	882	-
Stage 2	-	-	-	-	-	-	1004	882	-	938	808	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.5	9.7	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	913	1606	-	-	1493	-	-	-
HCM Lane V/C Ratio	0.157	0.001	-	-	0.001	-	-	-
HCM Control Delay (s)	9.7	7.2	0	-	7.4	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	49	23	9	872	758	143
Future Vol, veh/h	49	23	9	872	758	143
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	23	9	872	758	143

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1651	761	904	0	-	0
Stage 1	761	-	-	-	-	-
Stage 2	890	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	109	405	752	-	-	-
Stage 1	461	-	-	-	-	-
Stage 2	401	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	106	404	750	-	-	-
Mov Cap-2 Maneuver	301	-	-	-	-	-
Stage 1	449	-	-	-	-	-
Stage 2	400	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	750	-	328	-	-
HCM Lane V/C Ratio	0.012	-	0.22	-	-
HCM Control Delay (s)	9.9	0	19	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.8	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	654	18	398	499	0	999
Future Volume (veh/h)	654	18	398	499	0	999
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	654	18	398	0	0	999
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	715	20	1329	0	0	1329
Arrive On Green	0.42	0.42	0.38	0.00	0.00	0.38
Sat Flow, veh/h	1719	47	3725	0	0	3725
Grp Volume(v), veh/h	673	0	398	0	0	999
Grp Sat Flow(s),veh/h/ln	1768	0	1770	0	0	1770
Q Serve(g_s), s	12.9	0.0	2.8	0.0	0.0	8.8
Cycle Q Clear(g_c), s	12.9	0.0	2.8	0.0	0.0	8.8
Prop In Lane	0.97	0.03		0.00	0.00	
Lane Grp Cap(c), veh/h	736	0	1329	0	0	1329
V/C Ratio(X)	0.91	0.00	0.30	0.00	0.00	0.75
Avail Cap(c_a), veh/h	836	0	1525	0	0	1525
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	9.9	0.0	7.9	0.0	0.0	9.8
Incr Delay (d2), s/veh	12.7	0.0	0.2	0.0	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	0.0	1.4	0.0	0.0	4.5
LnGrp Delay(d),s/veh	22.6	0.0	8.1	0.0	0.0	11.7
LnGrp LOS	C		A			B
Approach Vol, veh/h	673		398			999
Approach Delay, s/veh	22.6		8.1			11.7
Approach LOS	C		A			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		18.0		18.0		18.0		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		15.5		17.0		15.5		
Max Q Clear Time (g_c+I1), s		4.8		14.9		10.8		
Green Ext Time (p_c), s		2.2		0.1		2.7		

Intersection Summary	
HCM 2010 Ctrl Delay	14.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	379	529	33	482	136	166	277	23	76	400	18
Future Volume (veh/h)	40	379	529	33	482	136	166	277	23	76	400	18
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.90	1.00		0.97	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	40	379	529	33	482	136	166	277	23	76	400	18
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	793	900	66	774	217	187	312	418	85	449	444
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.27	0.27	0.27	0.29	0.29	0.29
Sat Flow, veh/h	164	2414	1424	91	2356	661	685	1143	1532	295	1553	1534
Grp Volume(v), veh/h	160	259	529	343	0	308	443	0	23	476	0	18
Grp Sat Flow(s),veh/h/ln	968	1610	1424	1612	0	1495	1828	0	1532	1848	0	1534
Q Serve(g_s), s	3.0	14.1	25.8	5.1	0.0	19.1	25.5	0.0	1.2	27.0	0.0	0.9
Cycle Q Clear(g_c), s	22.1	14.1	25.8	19.1	0.0	19.1	25.5	0.0	1.2	27.0	0.0	0.9
Prop In Lane	0.25		1.00	0.10		0.44	0.37		1.00	0.16		1.00
Lane Grp Cap(c), veh/h	359	529	900	566	0	491	499	0	418	534	0	444
V/C Ratio(X)	0.45	0.49	0.59	0.61	0.00	0.63	0.89	0.00	0.05	0.89	0.00	0.04
Avail Cap(c_a), veh/h	359	529	900	566	0	491	667	0	559	708	0	588
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.3	29.4	13.9	30.6	0.0	31.1	38.2	0.0	29.4	37.3	0.0	28.0
Incr Delay (d2), s/veh	4.0	3.2	2.8	4.8	0.0	5.9	11.1	0.0	0.1	10.9	0.0	0.0
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	4.6	6.7	16.6	9.5	0.0	8.7	14.3	0.0	0.5	15.4	0.0	0.4
LnGrp Delay(d),s/veh	33.3	32.7	16.7	35.4	0.0	37.1	49.3	0.0	29.5	48.2	0.0	28.1
LnGrp LOS	C	C	B	D		D	D		C	D		C
Approach Vol, veh/h		948			651			466			494	
Approach Delay, s/veh		23.8			36.2			48.3			47.5	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		40.0		33.9		40.0		35.7
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		36.0		40.0		36.0		42.0
Max Q Clear Time (g_c+I1), s		27.8		27.5		21.1		29.0
Green Ext Time (p_c), s		3.2		2.4		3.9		2.7

Intersection Summary	
HCM 2010 Ctrl Delay	36.0
HCM 2010 LOS	D

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	374	391	225	455	509	310
Future Volume (veh/h)	374	391	225	455	509	310
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	374	391	225	455	509	310
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	407	1167	683	1051	548	852
Arrive On Green	0.23	0.63	0.37	0.37	0.31	0.31
Sat Flow, veh/h	1774	1863	1863	1533	1774	1583
Grp Volume(v), veh/h	374	391	225	455	509	310
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1533	1774	1583
Q Serve(g_s), s	26.9	12.9	11.4	17.9	36.3	14.7
Cycle Q Clear(g_c), s	26.9	12.9	11.4	17.9	36.3	14.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	407	1167	683	1051	548	852
V/C Ratio(X)	0.92	0.33	0.33	0.43	0.93	0.36
Avail Cap(c_a), veh/h	612	1167	683	1051	813	1088
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	49.1	11.5	29.8	9.8	43.7	17.3
Incr Delay (d2), s/veh	14.2	0.8	1.3	1.3	11.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.8	6.9	6.1	15.2	19.6	16.4
LnGrp Delay(d),s/veh	63.3	12.3	31.0	11.1	55.4	17.5
LnGrp LOS	E	B	C	B	E	B
Approach Vol, veh/h		765	680		819	
Approach Delay, s/veh		37.2	17.7		41.0	
Approach LOS		D	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		86.0		44.5	33.9	52.1		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 82		* 60	45.0	* 33		
Max Q Clear Time (g_c+I1), s		14.9		38.3	28.9	19.9		
Green Ext Time (p_c), s		1.6		2.0	1.0	1.6		

Intersection Summary	
HCM 2010 Ctrl Delay	32.7
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	132	12	45	19	173	1	803	82	289	933	33
Future Volume (veh/h)	193	132	12	45	19	173	1	803	82	289	933	33
Number	7	4	14	3	8	18	1	6	16	5	2	12
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		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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	193	132	12	45	19	173	1	803	82	289	933	33
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	277	157	13	323	124	852	45	921	94	447	2071	73
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.25	0.59	0.59
Sat Flow, veh/h	708	539	46	847	425	1558	1	3167	323	1774	3487	123
Grp Volume(v), veh/h	337	0	0	64	0	173	473	0	413	289	473	493
Grp Sat Flow(s),veh/h/ln	1293	0	0	1272	0	1558	1862	0	1629	1774	1770	1841
Q Serve(g_s), s	17.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.3	11.6	11.9	11.9
Cycle Q Clear(g_c), s	20.3	0.0	0.0	2.7	0.0	0.0	19.3	0.0	19.3	11.6	11.9	11.9
Prop In Lane	0.57		0.04	0.70		1.00	0.00		0.20	1.00		0.07
Lane Grp Cap(c), veh/h	447	0	0	447	0	852	587	0	474	447	1051	1093
V/C Ratio(X)	0.75	0.00	0.00	0.14	0.00	0.20	0.81	0.00	0.87	0.65	0.45	0.45
Avail Cap(c_a), veh/h	512	0	0	511	0	924	634	0	515	447	1051	1093
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	0.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	28.0	0.0	0.0	21.0	0.0	9.4	26.9	0.0	27.0	26.7	9.0	9.0
Incr Delay (d2), s/veh	5.0	0.0	0.0	0.1	0.0	0.1	11.3	0.0	19.4	2.1	1.2	1.1
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	7.7	0.0	0.0	1.1	0.0	1.9	11.7	0.0	11.2	6.0	6.1	6.4
LnGrp Delay(d),s/veh	33.1	0.0	0.0	21.1	0.0	9.5	38.2	0.0	46.4	28.9	10.2	10.1
LnGrp LOS	C			C		A	D		D	C	B	B
Approach Vol, veh/h		337			237			886			1255	
Approach Delay, s/veh		33.1			12.6			42.0			14.5	
Approach LOS		C			B			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		52.1		27.9	24.7	27.4		27.9
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		43.8		27.0	14.9	* 25		27.0
Max Q Clear Time (g_c+I1), s		13.9		22.3	13.6	21.3		4.7
Green Ext Time (p_c), s		7.3		0.8	0.1	2.0		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	25.6
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	573	1704	1000	286	565	841
Future Volume (veh/h)	573	1704	1000	286	565	841
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	573	1704	1000	286	565	841
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	651	2742	1162	332	635	1525
Arrive On Green	0.19	0.54	0.30	0.30	0.36	0.36
Sat Flow, veh/h	3442	5253	4058	1111	1774	2787
Grp Volume(v), veh/h	573	1704	871	415	565	841
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1610	1774	1393
Q Serve(g_s), s	12.6	18.1	18.9	18.9	23.4	15.2
Cycle Q Clear(g_c), s	12.6	18.1	18.9	18.9	23.4	15.2
Prop In Lane	1.00			0.69	1.00	1.00
Lane Grp Cap(c), veh/h	651	2742	1013	481	635	1525
V/C Ratio(X)	0.88	0.62	0.86	0.86	0.89	0.55
Avail Cap(c_a), veh/h	663	2742	1013	481	683	1600
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	30.7	12.4	25.8	25.8	23.5	11.4
Incr Delay (d2), s/veh	13.0	1.1	9.5	18.1	13.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	8.6	10.2	10.8	13.6	5.8
LnGrp Delay(d),s/veh	43.7	13.5	35.3	43.9	36.7	11.8
LnGrp LOS	D	B	D	D	D	B
Approach Vol, veh/h		2277	1286		1406	
Approach Delay, s/veh		21.1	38.0		21.8	
Approach LOS		C	D		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	18.7	27.3				46.0		31.9
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	15.0	23.0				42.0		30.0
Max Q Clear Time (g_c+I1), s	14.6	20.9				20.1		25.4
Green Ext Time (p_c), s	0.1	1.5				13.1		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	25.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	472	50	209	29	17	27	99	767	90	28	1103	449
Future Volume (veh/h)	472	50	209	29	17	27	99	767	90	28	1103	449
Number	3	8	18	7	4	14	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		0.98	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	508	0	209	29	17	27	99	767	90	28	1103	449
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	580	0	257	104	37	60	522	2311	1101	36	1326	836
Arrive On Green	0.16	0.00	0.16	0.06	0.06	0.06	0.59	1.00	1.00	0.02	0.37	0.37
Sat Flow, veh/h	3548	0	1572	1774	641	1017	1774	3539	1545	1774	3539	1540
Grp Volume(v), veh/h	508	0	209	29	0	44	99	767	90	28	1103	449
Grp Sat Flow(s),veh/h/ln	1774	0	1572	1774	0	1658	1774	1770	1545	1774	1770	1540
Q Serve(g_s), s	22.4	0.0	20.5	2.5	0.0	4.1	4.1	0.0	0.0	2.5	45.3	30.4
Cycle Q Clear(g_c), s	22.4	0.0	20.5	2.5	0.0	4.1	4.1	0.0	0.0	2.5	45.3	30.4
Prop In Lane	1.00		1.00	1.00		0.61	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	580	0	257	104	0	97	522	2311	1101	36	1326	836
V/C Ratio(X)	0.88	0.00	0.81	0.28	0.00	0.45	0.19	0.33	0.08	0.79	0.83	0.54
Avail Cap(c_a), veh/h	820	0	363	299	0	280	522	2311	1101	67	1398	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.74	0.74	0.74	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.3	0.0	64.6	72.1	0.0	72.8	24.1	0.0	0.0	78.0	45.4	24.1
Incr Delay (d2), s/veh	7.0	0.0	8.0	1.1	0.0	2.4	0.0	0.3	0.1	13.1	6.2	2.5
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	11.6	0.0	9.5	1.3	0.0	1.9	2.0	0.1	0.0	1.4	23.2	18.0
LnGrp Delay(d),s/veh	72.3	0.0	72.5	73.2	0.0	75.3	24.1	0.3	0.1	91.1	51.6	26.5
LnGrp LOS	E		E	E		E	C	A	A	F	D	C
Approach Vol, veh/h		717			73			956			1580	
Approach Delay, s/veh		72.4			74.4			2.7			45.2	
Approach LOS		E			E			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.2	109.1		13.6	51.7	64.6		30.2
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.6	* 4.6		4.0
Max Green Setting (Gmax), s	6.0	73.2		* 27	16.0	* 63		37.0
Max Q Clear Time (g_c+I1), s	4.5	2.0		6.1	6.1	47.3		24.4
Green Ext Time (p_c), s	0.0	15.2		0.2	0.1	12.7		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	39.5
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	397	90	241	441	32	125	162	272	53	216	100
Future Volume (veh/h)	40	397	90	241	441	32	125	162	272	53	216	100
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		0.96	1.00		0.97	1.00		0.97	1.00		0.97
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	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	40	397	90	241	441	32	125	162	272	53	216	100
Adj No. of Lanes	1	1	1	1	1	0	0	1	1	0	1	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	60	490	402	297	679	49	240	274	517	111	288	119
Arrive On Green	0.03	0.26	0.26	0.17	0.40	0.40	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1774	1863	1526	1774	1712	124	414	810	1529	93	852	351
Grp Volume(v), veh/h	40	397	90	241	0	473	287	0	272	369	0	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1526	1774	0	1836	1224	0	1529	1296	0	0
Q Serve(g_s), s	1.2	10.3	2.4	6.8	0.0	10.8	0.0	0.0	7.4	4.3	0.0	0.0
Cycle Q Clear(g_c), s	1.2	10.3	2.4	6.8	0.0	10.8	10.2	0.0	7.4	14.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.07	0.44		1.00	0.14		0.27
Lane Grp Cap(c), veh/h	60	490	402	297	0	728	513	0	517	517	0	0
V/C Ratio(X)	0.67	0.81	0.22	0.81	0.00	0.65	0.56	0.00	0.53	0.71	0.00	0.00
Avail Cap(c_a), veh/h	137	576	472	377	0	816	608	0	620	623	0	0
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.7	17.9	14.9	20.8	0.0	12.7	14.2	0.0	13.8	15.5	0.0	0.0
Incr Delay (d2), s/veh	12.0	7.4	0.3	10.2	0.0	1.5	1.0	0.0	0.8	3.1	0.0	0.0
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	0.8	6.3	1.0	4.1	0.0	5.7	3.6	0.0	3.2	5.4	0.0	0.0
LnGrp Delay(d),s/veh	36.8	25.2	15.2	31.0	0.0	14.2	15.2	0.0	14.6	18.6	0.0	0.0
LnGrp LOS	D	C	B	C		B	B		B	B		
Approach Vol, veh/h		527			714			559			369	
Approach Delay, s/veh		24.4			19.9			14.9			18.6	
Approach LOS		C			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		21.5	12.7	17.6		21.5	5.7	24.5
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		21.0	11.0	16.0		21.0	4.0	23.0
Max Q Clear Time (g_c+I1), s		12.2	8.8	12.3		16.5	3.2	12.8
Green Ext Time (p_c), s		2.0	0.2	1.0		1.0	0.0	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	320	0	321	365	228	0	1942	115	168	1538	13
Future Volume (veh/h)	2	320	0	321	365	228	0	1942	115	168	1538	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	5	20	0	118	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	2	320	0	321	365	228	0	1942	115	168	1538	0
Adj No. of Lanes	1	2	0	1	1	1	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	4	445	0	342	555	473	1	2458	57	187	2190	980
Arrive On Green	0.00	0.10	0.00	0.19	0.30	0.30	0.00	0.51	0.51	0.11	0.64	0.00
Sat Flow, veh/h	1774	3632	0	1774	1863	1549	1774	4908	290	1774	3539	1583
Grp Volume(v), veh/h	2	320	0	321	365	228	0	1339	718	168	1538	0
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1774	1863	1549	1774	1695	1807	1774	1770	1583
Q Serve(g_s), s	0.2	16.4	0.0	32.8	31.6	17.7	0.0	58.9	59.4	17.2	51.3	0.0
Cycle Q Clear(g_c), s	0.2	16.4	0.0	32.8	31.6	17.7	0.0	58.9	59.4	17.2	51.3	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	4	445	0	342	555	473	1	1626	886	187	2190	980
V/C Ratio(X)	0.53	0.72	0.00	0.94	0.66	0.48	0.00	0.82	0.81	0.90	0.70	0.00
Avail Cap(c_a), veh/h	39	442	0	443	657	547	39	1729	922	250	2256	1009
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	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	95.2	80.2	0.0	76.0	57.6	35.2	0.0	51.0	50.2	84.5	24.7	0.0
Incr Delay (d2), s/veh	85.0	5.6	0.0	24.5	1.9	0.8	0.0	4.9	7.9	26.5	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	1.7	24.8	0.0	94.8	74.9	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	8.5	0.0	19.1	18.2	15.3	0.0	66.5	67.3	10.1	27.9	0.0
LnGrp Delay(d),s/veh	180.2	85.8	0.0	100.5	61.1	60.8	0.0	150.6	133.1	111.0	26.6	0.0
LnGrp LOS	F	F		F	E	E		F	F	F	C	
Approach Vol, veh/h		322			914			2057			1706	
Approach Delay, s/veh		86.4			74.9			144.5			34.9	
Approach LOS		F			E			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	23.5	98.0	39.6	23.2	0.0	121.5	4.4	58.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	26.0	94.0	46.0	23.0	4.0	116.0	4.0	65.0
Max Q Clear Time (g_c+I1), s	19.2	61.4	34.8	18.4	0.0	53.3	2.2	33.6
Green Ext Time (p_c), s	0.2	20.8	0.7	0.8	0.0	20.1	0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	90.6
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	246	450	112	673	441	293	143	2217	608	319	1783	135
Future Volume (veh/h)	246	450	112	673	441	293	143	2217	608	319	1783	135
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		0.96	1.00		0.96	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	246	450	112	673	441	293	143	2217	608	319	1783	135
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	414	102	551	362	414	142	1861	1075	256	1840	1004
Arrive On Green	0.11	0.15	0.15	0.16	0.19	0.19	0.08	0.53	0.53	0.07	0.52	0.52
Sat Flow, veh/h	1774	2790	688	3442	1863	1527	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	246	284	278	673	441	293	143	2217	608	319	1783	135
Grp Sat Flow(s),veh/h/ln	1774	1770	1708	1721	1863	1527	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	20.0	26.0	26.0	28.0	34.0	30.4	14.0	92.0	35.0	13.0	85.3	6.0
Cycle Q Clear(g_c), s	20.0	26.0	26.0	28.0	34.0	30.4	14.0	92.0	35.0	13.0	85.3	6.0
Prop In Lane	1.00		0.40	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	203	263	254	551	362	414	142	1861	1075	256	1840	1004
V/C Ratio(X)	1.21	1.08	1.10	1.22	1.22	0.71	1.01	1.19	0.57	1.25	0.97	0.13
Avail Cap(c_a), veh/h	203	263	254	551	362	414	142	1861	1075	256	1840	1004
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	77.5	74.5	74.5	73.5	70.5	57.9	80.5	41.5	14.1	81.0	40.6	12.8
Incr Delay (d2), s/veh	132.6	78.3	84.6	115.5	120.9	5.4	77.6	91.8	2.2	139.8	14.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.3	18.4	18.2	22.1	29.6	13.5	9.9	68.4	15.7	11.1	45.4	2.7
LnGrp Delay(d),s/veh	210.1	152.8	159.1	189.0	191.4	63.4	158.1	133.3	16.3	220.8	55.4	13.1
LnGrp LOS	F	F	F	F	F	E	F	F	B	F	E	B
Approach Vol, veh/h		808			1407			2968			2237	
Approach Delay, s/veh		172.4			163.6			110.6			76.4	
Approach LOS		F			F			F			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	17.0	96.0	32.0	30.0	18.0	95.0	24.0	38.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	92.0	28.0	26.0	14.0	91.0	20.0	34.0
Max Q Clear Time (g_c+I1), s	15.0	94.0	30.0	28.0	16.0	87.3	22.0	36.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	117.1
HCM 2010 LOS	F

Notes
User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1024	619	1475	0	0	1285
Future Volume (veh/h)	1024	619	1475	0	0	1285
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	1024	619	1475	0	0	1285
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	1186	960	1952	0	0	1952
Arrive On Green	0.34	0.34	0.55	0.00	0.00	0.55
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	1024	619	1475	0	0	1285
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	22.2	15.0	25.6	0.0	0.0	20.4
Cycle Q Clear(g_c), s	22.2	15.0	25.6	0.0	0.0	20.4
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	1186	960	1952	0	0	1952
V/C Ratio(X)	0.86	0.64	0.76	0.00	0.00	0.66
Avail Cap(c_a), veh/h	1282	1038	1952	0	0	1952
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.64	0.00	0.00	1.00
Uniform Delay (d), s/veh	24.5	22.1	13.8	0.0	0.0	12.6
Incr Delay (d2), s/veh	6.0	1.2	1.8	0.0	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	5.9	12.8	0.0	0.0	10.3
LnGrp Delay(d),s/veh	30.4	23.3	15.6	0.0	0.0	14.4
LnGrp LOS	C	C	B			B
Approach Vol, veh/h	1643		1475			1285
Approach Delay, s/veh	27.8		15.6			14.4
Approach LOS	C		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		48.2				48.2		31.8
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		41.9				41.9		29.8
Max Q Clear Time (g_c+I1), s		27.6				22.4		24.2
Green Ext Time (p_c), s		9.1				9.7		3.4

Intersection Summary	
HCM 2010 Ctrl Delay	19.8
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1091	320	0	847	1749	0
Future Volume (veh/h)	1091	320	0	847	1749	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1091	320	0	847	1749	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1183	544	0	1960	1960	0
Arrive On Green	0.34	0.34	0.00	0.55	0.74	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1091	320	0	847	1749	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	24.4	13.3	0.0	11.2	30.4	0.0
Cycle Q Clear(g_c), s	24.4	13.3	0.0	11.2	30.4	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1183	544	0	1960	1960	0
V/C Ratio(X)	0.92	0.59	0.00	0.43	0.89	0.00
Avail Cap(c_a), veh/h	1248	574	0	1960	1960	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.59	0.00
Uniform Delay (d), s/veh	25.2	21.6	0.0	10.5	8.7	0.0
Incr Delay (d2), s/veh	10.7	0.9	0.0	0.7	4.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.3	5.9	0.0	5.6	15.4	0.0
LnGrp Delay(d),s/veh	35.9	22.5	0.0	11.2	12.8	0.0
LnGrp LOS	D	C		B	B	
Approach Vol, veh/h	1411			847	1749	
Approach Delay, s/veh	32.8			11.2	12.8	
Approach LOS	C			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		48.4		31.6		48.4		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		42.8		29.0		42.8		
Max Q Clear Time (g_c+I1), s		13.2		26.4		32.4		
Green Ext Time (p_c), s		4.4		1.1		6.7		

Intersection Summary	
HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	28.3
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	39	408	58	115	532	45	74	127	90	30	145	83
Future Vol, veh/h	39	408	58	115	532	45	74	127	90	30	145	83
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	408	58	115	532	45	74	127	90	30	145	83
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	21.9	36.5	25.2	22.3
HCM LOS	C	E	D	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	25%	16%	0%	30%	0%	12%
Vol Thru, %	44%	84%	78%	70%	86%	56%
Vol Right, %	31%	0%	22%	0%	14%	32%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	291	243	262	381	311	258
LT Vol	74	39	0	115	0	30
Through Vol	127	204	204	266	266	145
RT Vol	90	0	58	0	45	83
Lane Flow Rate	291	243	262	381	311	258
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.653	0.566	0.592	0.866	0.684	0.588
Departure Headway (Hd)	8.08	8.38	8.136	8.179	7.918	8.198
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	448	430	443	442	457	441
Service Time	6.127	6.13	5.886	5.929	5.668	6.246
HCM Lane V/C Ratio	0.65	0.565	0.591	0.862	0.681	0.585
HCM Control Delay	25.2	21.6	22.1	44.9	26.2	22.3
HCM Lane LOS	D	C	C	E	D	C
HCM 95th-tile Q	4.6	3.4	3.7	8.8	5.1	3.7

Intersection	
Int Delay, s/veh	19

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	60	875	7	8	508	54	9	6	35	107	2	91
Future Vol, veh/h	60	875	7	8	508	54	9	6	35	107	2	91
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	875	7	8	508	54	9	6	35	107	2	91

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	593	0	0	898	0	0	1286	1624	482	1168	1600	312
Stage 1	-	-	-	-	-	-	1015	1015	-	582	582	-
Stage 2	-	-	-	-	-	-	271	609	-	586	1018	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	979	-	-	752	-	-	122	102	530	149	105	684
Stage 1	-	-	-	-	-	-	255	314	-	466	497	-
Stage 2	-	-	-	-	-	-	712	484	-	463	313	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	954	-	-	742	-	-	91	85	512	112	87	666
Mov Cap-2 Maneuver	-	-	-	-	-	-	91	85	-	112	87	-
Stage 1	-	-	-	-	-	-	220	272	-	397	476	-
Stage 2	-	-	-	-	-	-	602	464	-	362	271	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.2	27.4	155.5
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	210	954	-	-	742	-	-	179
HCM Lane V/C Ratio	0.238	0.063	-	-	0.011	-	-	1.117
HCM Control Delay (s)	27.4	9	0.5	-	9.9	0.1	-	155.5
HCM Lane LOS	D	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.9	0.2	-	-	0	-	-	10.1

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	0	89	29	72	144	1	13	1	79	4	5	0
Future Vol, veh/h	0	89	29	72	144	1	13	1	79	4	5	0
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	89	29	72	144	1	13	1	79	4	5	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	149	0	0	119	0	0	397	398	106	438	412	150
Stage 1	-	-	-	-	-	-	105	105	-	293	293	-
Stage 2	-	-	-	-	-	-	292	293	-	145	119	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1432	-	-	1469	-	-	563	540	948	529	530	896
Stage 1	-	-	-	-	-	-	901	808	-	715	670	-
Stage 2	-	-	-	-	-	-	716	670	-	858	797	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1427	-	-	1468	-	-	535	509	946	462	500	892
Mov Cap-2 Maneuver	-	-	-	-	-	-	535	509	-	462	500	-
Stage 1	-	-	-	-	-	-	900	807	-	713	632	-
Stage 2	-	-	-	-	-	-	672	632	-	785	796	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.5	9.8	12.6
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	847	1427	-	-	1468	-	-	482
HCM Lane V/C Ratio	0.11	-	-	-	0.049	-	-	0.019
HCM Control Delay (s)	9.8	0	-	-	7.6	0	-	12.6
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0.2	-	-	0.1

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	74	20	89	104	2	5	12	17	6	54	29
Future Vol, veh/h	7	74	20	89	104	2	5	12	17	6	54	29
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	74	20	89	104	2	5	12	17	6	54	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	108	0	0	96	0	0	426	386	87	399	395	108
Stage 1	-	-	-	-	-	-	100	100	-	285	285	-
Stage 2	-	-	-	-	-	-	326	286	-	114	110	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1483	-	-	1498	-	-	539	548	971	561	542	946
Stage 1	-	-	-	-	-	-	906	812	-	722	676	-
Stage 2	-	-	-	-	-	-	687	675	-	891	804	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1481	-	-	1496	-	-	454	509	969	512	504	944
Mov Cap-2 Maneuver	-	-	-	-	-	-	454	509	-	512	504	-
Stage 1	-	-	-	-	-	-	900	806	-	717	632	-
Stage 2	-	-	-	-	-	-	570	631	-	857	798	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	3.5	10.8	12.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	652	1481	-	-	1496	-	-	595
HCM Lane V/C Ratio	0.052	0.005	-	-	0.059	-	-	0.15
HCM Control Delay (s)	10.8	7.4	0	-	7.6	0	-	12.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.2	-	-	0.5

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	82	10	64	181	1	10	3	18	3	7	8
Future Vol, veh/h	10	82	10	64	181	1	10	3	18	3	7	8
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	82	10	64	181	1	10	3	18	3	7	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	183	0	0	92	0	0	425	418	89	431	423	184
Stage 1	-	-	-	-	-	-	107	107	-	311	311	-
Stage 2	-	-	-	-	-	-	318	311	-	120	112	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1392	-	-	1503	-	-	540	526	969	535	522	858
Stage 1	-	-	-	-	-	-	898	807	-	699	658	-
Stage 2	-	-	-	-	-	-	693	658	-	884	803	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1391	-	-	1503	-	-	507	497	967	500	493	857
Mov Cap-2 Maneuver	-	-	-	-	-	-	507	497	-	500	493	-
Stage 1	-	-	-	-	-	-	891	801	-	693	626	-
Stage 2	-	-	-	-	-	-	646	626	-	856	797	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	2	10.4	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	699	1391	-	-	1503	-	-	609
HCM Lane V/C Ratio	0.044	0.007	-	-	0.043	-	-	0.03
HCM Control Delay (s)	10.4	7.6	0	-	7.5	0	-	11.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	4.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	163	2	38	82	2	158
Future Vol, veh/h	163	2	38	82	2	158
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	163	2	38	82	2	158

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	168	0	326	167
Stage 1	-	-	-	-	167	-
Stage 2	-	-	-	-	159	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1410	-	689	877
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	888	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1406	-	668	875
Mov Cap-2 Maneuver	-	-	-	-	668	-
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	863	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	872	-	-	1406	-
HCM Lane V/C Ratio	0.183	-	-	0.027	-
HCM Control Delay (s)	10.1	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	92	83	1	2	138	3	3	5	5	6	5	77
Future Vol, veh/h	92	83	1	2	138	3	3	5	5	6	5	77
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	92	83	1	2	138	3	3	5	5	6	5	77

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	143	0	0	85	0	0	455	416	85	419	415	143
Stage 1	-	-	-	-	-	-	269	269	-	146	146	-
Stage 2	-	-	-	-	-	-	186	147	-	273	269	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1440	-	-	1512	-	-	515	527	974	544	528	905
Stage 1	-	-	-	-	-	-	737	687	-	857	776	-
Stage 2	-	-	-	-	-	-	816	775	-	733	687	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1438	-	-	1511	-	-	442	490	973	508	491	903
Mov Cap-2 Maneuver	-	-	-	-	-	-	442	490	-	508	491	-
Stage 1	-	-	-	-	-	-	687	640	-	798	774	-
Stage 2	-	-	-	-	-	-	740	773	-	675	640	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4	0.1	11.3	9.9
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	587	1438	-	-	1511	-	-	820
HCM Lane V/C Ratio	0.022	0.064	-	-	0.001	-	-	0.107
HCM Control Delay (s)	11.3	7.7	0	-	7.4	0	-	9.9
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.4

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	33	33	7	12	41	55	5	130	29	62	152	35
Future Vol, veh/h	33	33	7	12	41	55	5	130	29	62	152	35
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	33	7	12	41	55	5	130	29	62	152	35
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	8.7	8.5	8.8	9.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	45%	11%	25%
Vol Thru, %	79%	45%	38%	61%
Vol Right, %	18%	10%	51%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	164	73	108	249
LT Vol	5	33	12	62
Through Vol	130	33	41	152
RT Vol	29	7	55	35
Lane Flow Rate	164	73	108	249
Geometry Grp	1	1	1	1
Degree of Util (X)	0.208	0.102	0.141	0.313
Departure Headway (Hd)	4.557	5.049	4.691	4.527
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	786	707	761	792
Service Time	2.598	3.102	2.739	2.564
HCM Lane V/C Ratio	0.209	0.103	0.142	0.314
HCM Control Delay	8.8	8.7	8.5	9.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	0.3	0.5	1.3

Intersection	
Intersection Delay, s/veh	38.5
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	104	27	49	84	51	188	29	260	46	56	411	67
Future Vol, veh/h	104	27	49	84	51	188	29	260	46	56	411	67
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	104	27	49	84	51	188	29	260	46	56	411	67
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	16.6	22.9	24.3	64.2
HCM LOS	C	C	C	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	58%	26%	10%
Vol Thru, %	78%	15%	16%	77%
Vol Right, %	14%	27%	58%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	335	180	323	534
LT Vol	29	104	84	56
Through Vol	260	27	51	411
RT Vol	46	49	188	67
Lane Flow Rate	335	180	323	534
Geometry Grp	1	1	1	1
Degree of Util (X)	0.678	0.406	0.648	0.996
Departure Headway (Hd)	7.291	8.113	7.34	6.712
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	499	445	494	534
Service Time	5.291	6.132	5.34	4.811
HCM Lane V/C Ratio	0.671	0.404	0.654	1
HCM Control Delay	24.3	16.6	22.9	64.2
HCM Lane LOS	C	C	C	F
HCM 95th-tile Q	5	1.9	4.6	13.9

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	18	75	5	20	1	92	1	2	0	0	0
Future Vol, veh/h	1	18	75	5	20	1	92	1	2	0	0	0
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	18	75	5	20	1	92	1	2	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	21	0	0	94	0	0	90	90	57	90	127	21
Stage 1	-	-	-	-	-	-	59	59	-	31	31	-
Stage 2	-	-	-	-	-	-	31	31	-	59	96	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1595	-	-	1500	-	-	895	800	1009	895	764	1056
Stage 1	-	-	-	-	-	-	953	846	-	986	869	-
Stage 2	-	-	-	-	-	-	986	869	-	953	815	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1595	-	-	1499	-	-	891	796	1008	890	760	1056
Mov Cap-2 Maneuver	-	-	-	-	-	-	891	796	-	890	760	-
Stage 1	-	-	-	-	-	-	951	844	-	985	866	-
Stage 2	-	-	-	-	-	-	983	866	-	949	813	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.4	9.5	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	892	1595	-	-	1499	-	-	-
HCM Lane V/C Ratio	0.107	0.001	-	-	0.003	-	-	-
HCM Control Delay (s)	9.5	7.3	0	-	7.4	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	47	24	21	973	841	62
Future Vol, veh/h	47	24	21	973	841	62
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	24	21	973	841	62

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1859	844	906	0	-	0
Stage 1	844	-	-	-	-	-
Stage 2	1015	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	81	363	751	-	-	-
Stage 1	422	-	-	-	-	-
Stage 2	350	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	76	362	749	-	-	-
Mov Cap-2 Maneuver	258	-	-	-	-	-
Stage 1	395	-	-	-	-	-
Stage 2	349	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21.7	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	749	-	286	-	-
HCM Lane V/C Ratio	0.028	-	0.248	-	-
HCM Control Delay (s)	9.9	0	21.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	536	41	453	624	0	721
Future Volume (veh/h)	536	41	453	624	0	721
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	536	41	453	0	0	721
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	614	47	1263	0	0	1263
Arrive On Green	0.38	0.38	0.36	0.00	0.00	0.36
Sat Flow, veh/h	1631	125	3725	0	0	3725
Grp Volume(v), veh/h	578	0	453	0	0	721
Grp Sat Flow(s),veh/h/ln	1759	0	1770	0	0	1770
Q Serve(g_s), s	8.6	0.0	2.7	0.0	0.0	4.6
Cycle Q Clear(g_c), s	8.6	0.0	2.7	0.0	0.0	4.6
Prop In Lane	0.93	0.07		0.00	0.00	
Lane Grp Cap(c), veh/h	662	0	1263	0	0	1263
V/C Ratio(X)	0.87	0.00	0.36	0.00	0.00	0.57
Avail Cap(c_a), veh/h	1002	0	2079	0	0	2079
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	8.1	0.0	6.7	0.0	0.0	7.3
Incr Delay (d2), s/veh	3.9	0.0	0.2	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	1.3	0.0	0.0	2.3
LnGrp Delay(d),s/veh	12.0	0.0	6.9	0.0	0.0	7.8
LnGrp LOS	B		A			A
Approach Vol, veh/h	578		453			721
Approach Delay, s/veh	12.0		6.9			7.8
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		14.5		13.6		14.5		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		16.5		16.0		16.5		
Max Q Clear Time (g_c+I1), s		4.7		10.6		6.6		
Green Ext Time (p_c), s		2.7		0.1		3.4		

Intersection Summary	
HCM 2010 Ctrl Delay	9.0
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	435	386	20	578	118	223	213	17	79	368	88
Future Volume (veh/h)	65	435	386	20	578	118	223	213	17	79	368	88
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.91	1.00		0.97	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	65	435	386	20	578	118	223	213	17	79	368	88
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	127	740	932	50	960	193	249	238	411	89	413	417
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	232	2093	1433	46	2714	546	929	887	1532	326	1520	1532
Grp Volume(v), veh/h	161	339	386	384	0	332	436	0	17	447	0	88
Grp Sat Flow(s),veh/h/ln	714	1610	1433	1771	0	1534	1816	0	1532	1846	0	1532
Q Serve(g_s), s	9.5	19.5	15.8	0.1	0.0	20.2	26.1	0.0	0.9	26.3	0.0	5.0
Cycle Q Clear(g_c), s	29.7	19.5	15.8	19.5	0.0	20.2	26.1	0.0	0.9	26.3	0.0	5.0
Prop In Lane	0.40		1.00	0.05		0.36	0.51		1.00	0.18		1.00
Lane Grp Cap(c), veh/h	297	570	932	660	0	543	487	0	411	502	0	417
V/C Ratio(X)	0.54	0.59	0.41	0.58	0.00	0.61	0.89	0.00	0.04	0.89	0.00	0.21
Avail Cap(c_a), veh/h	297	570	932	660	0	543	626	0	528	637	0	529
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.3	29.9	11.1	29.7	0.0	30.1	39.8	0.0	30.6	39.5	0.0	31.8
Incr Delay (d2), s/veh	6.9	4.5	1.4	3.7	0.0	5.1	12.9	0.0	0.0	12.4	0.0	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	5.1	9.4	11.0	10.4	0.0	9.2	14.8	0.0	0.4	15.1	0.0	2.2
LnGrp Delay(d),s/veh	42.2	34.4	12.4	33.5	0.0	35.2	52.8	0.0	30.7	52.0	0.0	32.1
LnGrp LOS	D	C	B	C		D	D		C	D		C
Approach Vol, veh/h		886			716			453			535	
Approach Delay, s/veh		26.2			34.3			51.9			48.7	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		44.0		34.3		44.0		34.7
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		40.0		39.0		40.0		39.0
Max Q Clear Time (g_c+I1), s		31.7		28.1		22.2		28.3
Green Ext Time (p_c), s		3.2		2.2		4.5		2.4

Intersection Summary	
HCM 2010 Ctrl Delay	37.6
HCM 2010 LOS	D

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	324	288	502	393	426	399
Future Volume (veh/h)	324	288	502	393	426	399
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	324	288	502	393	426	399
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	350	1254	830	684	465	728
Arrive On Green	0.20	0.67	0.45	0.45	0.26	0.26
Sat Flow, veh/h	1774	1863	1863	1536	1774	1583
Grp Volume(v), veh/h	324	288	502	393	426	399
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1536	1774	1583
Q Serve(g_s), s	23.4	7.8	26.7	24.9	30.4	23.7
Cycle Q Clear(g_c), s	23.4	7.8	26.7	24.9	30.4	23.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	350	1254	830	684	465	728
V/C Ratio(X)	0.93	0.23	0.61	0.57	0.92	0.55
Avail Cap(c_a), veh/h	463	1254	830	684	596	844
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	51.4	8.2	27.5	27.0	46.7	25.5
Incr Delay (d2), s/veh	18.5	0.4	3.3	3.5	15.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.2	4.1	14.4	11.1	16.9	22.3
LnGrp Delay(d),s/veh	69.9	8.7	30.7	30.4	62.2	25.9
LnGrp LOS	E	A	C	C	E	C
Approach Vol, veh/h		612	895		825	
Approach Delay, s/veh		41.1	30.6		44.7	
Approach LOS		D	C		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		92.0		38.4	29.7	62.3		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 88		* 44	34.0	* 50		
Max Q Clear Time (g_c+I1), s		9.8		32.4	25.4	28.7		
Green Ext Time (p_c), s		1.2		1.8	0.3	2.9		

Intersection Summary	
HCM 2010 Ctrl Delay	38.3
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	50	10	86	19	147	2	681	108	194	841	54
Future Volume (veh/h)	78	50	10	86	19	147	2	681	108	194	841	54
Number	7	4	14	3	8	18	1	6	16	5	2	12
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		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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	78	50	10	86	19	147	2	681	108	194	841	54
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	120	70	12	217	43	1000	26	805	127	808	2547	164
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.27	0.27	0.27	0.46	0.75	0.75
Sat Flow, veh/h	442	387	65	944	241	1553	2	2984	472	1774	3377	217
Grp Volume(v), veh/h	138	0	0	105	0	147	425	0	366	194	441	454
Grp Sat Flow(s),veh/h/ln	894	0	0	1186	0	1553	1860	0	1598	1774	1770	1824
Q Serve(g_s), s	11.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.4	9.4	11.4	11.4
Cycle Q Clear(g_c), s	22.7	0.0	0.0	11.3	0.0	0.0	30.2	0.0	30.4	9.4	11.4	11.4
Prop In Lane	0.57		0.07	0.82		1.00	0.00		0.30	1.00		0.12
Lane Grp Cap(c), veh/h	201	0	0	260	0	1000	527	0	431	808	1335	1376
V/C Ratio(X)	0.69	0.00	0.00	0.40	0.00	0.15	0.81	0.00	0.85	0.24	0.33	0.33
Avail Cap(c_a), veh/h	284	0	0	343	0	1091	846	0	707	808	1335	1376
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	0.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	59.5	0.0	0.0	51.6	0.0	10.3	48.4	0.0	48.4	23.3	5.6	5.6
Incr Delay (d2), s/veh	3.1	0.0	0.0	0.7	0.0	0.0	12.4	0.0	18.5	0.0	0.5	0.5
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	5.4	0.0	0.0	3.7	0.0	2.3	17.4	0.0	15.6	4.6	5.7	5.9
LnGrp Delay(d),s/veh	62.6	0.0	0.0	52.3	0.0	10.3	60.8	0.0	66.9	23.4	6.1	6.1
LnGrp LOS	E			D		B	E		E	C	A	A
Approach Vol, veh/h		138			252			791			1089	
Approach Delay, s/veh		62.6			27.8			63.6			9.2	
Approach LOS		E			C			E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		110.2		29.8	68.3	41.9		29.8
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		97.4		33.4	31.9	* 62		33.4
Max Q Clear Time (g_c+I1), s		13.4		24.7	11.4	32.4		13.3
Green Ext Time (p_c), s		7.2		0.4	0.2	5.4		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	33.5
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	696	956	1444	337	314	678
Future Volume (veh/h)	696	956	1444	337	314	678
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	696	956	1444	337	314	678
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	782	3385	1557	362	388	1242
Arrive On Green	0.23	0.67	0.38	0.38	0.22	0.22
Sat Flow, veh/h	3442	5253	4260	951	1774	2787
Grp Volume(v), veh/h	696	956	1195	586	314	678
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1652	1774	1393
Q Serve(g_s), s	13.5	5.3	23.3	23.5	11.6	12.3
Cycle Q Clear(g_c), s	13.5	5.3	23.3	23.5	11.6	12.3
Prop In Lane	1.00			0.58	1.00	1.00
Lane Grp Cap(c), veh/h	782	3385	1290	629	388	1242
V/C Ratio(X)	0.89	0.28	0.93	0.93	0.81	0.55
Avail Cap(c_a), veh/h	797	3385	1290	629	411	1278
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	25.9	4.8	20.5	20.5	25.6	14.0
Incr Delay (d2), s/veh	12.0	0.2	12.7	22.5	11.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	2.5	13.1	14.5	6.9	4.7
LnGrp Delay(d),s/veh	37.9	5.0	33.2	43.0	36.7	14.5
LnGrp LOS	D	A	C	D	D	B
Approach Vol, veh/h		1652	1781		992	
Approach Delay, s/veh		18.8	36.4		21.5	
Approach LOS		B	D		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	19.7	30.3				50.0		19.1
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	26.0				46.0		16.0
Max Q Clear Time (g_c+I1), s	15.5	25.5				7.3		14.3
Green Ext Time (p_c), s	0.2	0.4				7.9		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	475	15	130	138	58	102	185	720	84	30	697	377
Future Volume (veh/h)	475	15	130	138	58	102	185	720	84	30	697	377
Number	3	8	18	7	4	14	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		0.97	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	486	0	130	138	58	102	185	720	84	30	697	377
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	609	0	270	231	78	138	124	1797	989	40	1630	982
Arrive On Green	0.17	0.00	0.17	0.13	0.13	0.13	0.07	0.51	0.51	0.02	0.46	0.46
Sat Flow, veh/h	3548	0	1572	1774	603	1061	1774	3539	1543	1774	3539	1542
Grp Volume(v), veh/h	486	0	130	138	0	160	185	720	84	30	697	377
Grp Sat Flow(s),veh/h/ln	1774	0	1572	1774	0	1664	1774	1770	1543	1774	1770	1542
Q Serve(g_s), s	13.1	0.0	7.5	7.3	0.0	9.3	7.0	12.6	2.1	1.7	13.2	11.9
Cycle Q Clear(g_c), s	13.1	0.0	7.5	7.3	0.0	9.3	7.0	12.6	2.1	1.7	13.2	11.9
Prop In Lane	1.00		1.00	1.00		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	609	0	270	231	0	216	124	1797	989	40	1630	982
V/C Ratio(X)	0.80	0.00	0.48	0.60	0.00	0.74	1.49	0.40	0.08	0.75	0.43	0.38
Avail Cap(c_a), veh/h	958	0	425	479	0	449	124	1797	989	71	1630	982
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	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	0.0	37.4	41.0	0.0	41.9	46.5	15.2	6.9	48.6	18.1	9.0
Incr Delay (d2), s/veh	2.0	0.0	1.0	1.8	0.0	3.7	255.9	0.6	0.2	9.8	0.8	1.1
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	6.6	0.0	3.3	3.7	0.0	4.5	12.2	6.3	1.3	0.9	6.6	7.7
LnGrp Delay(d),s/veh	41.7	0.0	38.4	42.9	0.0	45.5	302.4	15.8	7.1	58.4	18.9	10.1
LnGrp LOS	D		D	D		D	F	B	A	E	B	B
Approach Vol, veh/h		616			298			989			1104	
Approach Delay, s/veh		41.0			44.3			68.7			17.0	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.3	55.4		17.2	11.0	50.6		21.2
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.0	4.6		4.0
Max Green Setting (Gmax), s	4.0	25.2		* 27	7.0	22.2		27.0
Max Q Clear Time (g_c+I1), s	3.7	14.6		11.3	9.0	15.2		15.1
Green Ext Time (p_c), s	0.0	5.9		0.9	0.0	4.9		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	41.6
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	358	126	193	309	23	74	161	242	42	144	26
Future Volume (veh/h)	43	358	126	193	309	23	74	161	242	42	144	26
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		0.97	1.00		0.97	0.99		0.96	0.99		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	1863	1863	1863	1900	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	43	358	126	193	309	23	74	161	242	42	144	26
Adj No. of Lanes	1	1	1	1	1	0	0	1	1	0	1	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	535	439	253	669	50	220	337	388	158	312	50
Arrive On Green	0.04	0.29	0.29	0.14	0.39	0.39	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1774	1863	1528	1774	1708	127	376	1323	1522	175	1223	195
Grp Volume(v), veh/h	43	358	126	193	0	332	235	0	242	212	0	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1528	1774	0	1835	1699	0	1522	1594	0	0
Q Serve(g_s), s	0.9	6.5	2.4	4.0	0.0	5.1	0.0	0.0	5.4	0.1	0.0	0.0
Cycle Q Clear(g_c), s	0.9	6.5	2.4	4.0	0.0	5.1	4.1	0.0	5.4	4.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.07	0.31		1.00	0.20		0.12
Lane Grp Cap(c), veh/h	68	535	439	253	0	719	558	0	388	520	0	0
V/C Ratio(X)	0.63	0.67	0.29	0.76	0.00	0.46	0.42	0.00	0.62	0.41	0.00	0.00
Avail Cap(c_a), veh/h	233	929	762	559	0	1253	861	0	679	814	0	0
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.0	12.0	10.5	15.7	0.0	8.6	12.1	0.0	12.6	12.0	0.0	0.0
Incr Delay (d2), s/veh	9.3	1.5	0.4	4.7	0.0	0.5	0.5	0.0	1.6	0.5	0.0	0.0
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	0.6	3.5	1.1	2.3	0.0	2.7	2.2	0.0	2.4	2.0	0.0	0.0
LnGrp Delay(d),s/veh	27.3	13.4	10.9	20.4	0.0	9.1	12.6	0.0	14.2	12.5	0.0	0.0
LnGrp LOS	C	B	B	C		A	B		B	B		
Approach Vol, veh/h		527			525			477			212	
Approach Delay, s/veh		14.0			13.2			13.4			12.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.7	9.4	14.9		13.7	5.5	18.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		17.0	12.0	19.0		17.0	5.0	26.0
Max Q Clear Time (g_c+I1), s		7.4	6.0	8.5		6.2	2.9	7.1
Green Ext Time (p_c), s		1.7	0.3	2.0		0.9	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	13.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	478	56	165	459	232	102	1619	135	156	1831	45
Future Volume (veh/h)	0	478	56	165	459	232	102	1619	135	156	1831	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	10	40	55	12	175	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	0	478	0	165	459	232	102	1619	135	156	1831	0
Adj No. of Lanes	1	2	0	1	1	1	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1	544	0	206	541	450	135	2571	105	251	2033	909
Arrive On Green	0.00	0.15	0.00	0.10	0.28	0.28	0.07	0.52	0.52	0.14	0.59	0.00
Sat Flow, veh/h	1774	3632	0	1774	1863	1548	1774	4779	398	1774	3539	1583
Grp Volume(v), veh/h	0	478	0	165	459	232	102	1148	606	156	1831	0
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1774	1863	1548	1774	1695	1787	1774	1770	1583
Q Serve(g_s), s	0.0	25.2	0.0	17.6	45.1	18.3	10.9	46.7	46.8	15.9	83.7	0.0
Cycle Q Clear(g_c), s	0.0	25.2	0.0	17.6	45.1	18.3	10.9	46.7	46.8	15.9	83.7	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	1	544	0	206	541	450	135	1728	933	251	2033	909
V/C Ratio(X)	0.00	0.88	0.00	0.80	0.85	0.52	0.76	0.66	0.65	0.62	0.90	0.00
Avail Cap(c_a), veh/h	37	704	0	213	556	462	139	1774	935	260	2093	936
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)	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	81.5	0.0	87.0	70.0	38.6	91.1	45.8	44.2	79.5	37.0	0.0
Incr Delay (d2), s/veh	0.0	10.1	0.0	18.8	11.6	0.9	20.3	2.0	3.5	4.3	7.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	85.8	198.0	222.2	210.6	97.7	80.4	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.5	0.0	17.1	61.0	46.1	16.0	66.2	64.6	8.3	45.7	0.0
LnGrp Delay(d),s/veh	0.0	91.6	0.0	191.7	279.6	261.8	322.0	145.5	128.1	83.8	43.9	0.0
LnGrp LOS		F		F	F	F	F	F	F	F	D	
Approach Vol, veh/h		478			856			1856			1987	
Approach Delay, s/veh		91.6			257.8			149.5			47.0	
Approach LOS		F			F			F			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	29.9	104.0	23.7	33.6	16.9	117.0	0.0	57.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	28.0	100.0	23.0	38.0	15.0	113.0	4.0	57.0
Max Q Clear Time (g_c+I1), s	17.9	48.8	19.6	27.2	12.9	85.7	0.0	47.1
Green Ext Time (p_c), s	0.3	20.8	0.1	2.3	0.0	17.9	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	122.7
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	232	519	132	765	540	296	167	1421	796	322	2187	76
Future Volume (veh/h)	232	519	132	765	540	296	167	1421	796	322	2187	76
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		0.96	1.00		0.97	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	232	519	132	765	540	296	167	1421	796	322	2187	76
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	171	421	106	570	411	513	135	1635	985	380	1757	939
Arrive On Green	0.10	0.15	0.15	0.17	0.22	0.22	0.08	0.46	0.46	0.11	0.50	0.50
Sat Flow, veh/h	1774	2774	701	3442	1863	1532	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	232	330	321	765	540	296	167	1421	796	322	2187	76
Grp Sat Flow(s),veh/h/ln	1774	1770	1706	1721	1863	1532	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	14.0	22.0	22.0	24.0	32.0	4.7	11.0	52.3	27.0	13.3	72.0	3.0
Cycle Q Clear(g_c), s	14.0	22.0	22.0	24.0	32.0	4.7	11.0	52.3	27.0	13.3	72.0	3.0
Prop In Lane	1.00		0.41	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	171	268	259	570	411	513	135	1635	985	380	1757	939
V/C Ratio(X)	1.35	1.23	1.24	1.34	1.31	0.58	1.24	0.87	0.81	0.85	1.24	0.08
Avail Cap(c_a), veh/h	171	268	259	570	411	513	135	1635	985	380	1757	939
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	65.5	61.5	61.5	60.5	56.5	23.0	67.0	35.1	7.5	63.3	36.5	12.6
Incr Delay (d2), s/veh	192.7	131.3	136.7	165.8	157.5	1.6	156.2	6.6	7.1	16.3	115.0	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	16.0	20.5	20.2	24.5	34.4	9.4	11.2	27.0	13.2	7.2	63.2	1.3
LnGrp Delay(d),s/veh	258.2	192.8	198.2	226.3	214.0	24.6	223.2	41.6	14.7	79.6	151.5	12.8
LnGrp LOS	F	F	F	F	F	C	F	D	B	E	F	B
Approach Vol, veh/h		883			1601			2384			2585	
Approach Delay, s/veh		211.9			184.9			45.3			138.5	
Approach LOS		F			F			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	20.0	71.0	28.0	26.0	15.0	76.0	18.0	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	67.0	24.0	22.0	11.0	72.0	14.0	32.0
Max Q Clear Time (g_c+I1), s	15.3	54.3	26.0	24.0	13.0	74.0	16.0	34.0
Green Ext Time (p_c), s	0.1	10.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	127.3
HCM 2010 LOS	F

Notes

User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	544	258	2269	0	0	869
Future Volume (veh/h)	544	258	2269	0	0	869
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	544	258	2269	0	0	869
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	707	573	2445	0	0	2445
Arrive On Green	0.21	0.21	0.69	0.00	0.00	0.69
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	544	258	2269	0	0	869
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	11.9	6.5	44.2	0.0	0.0	8.1
Cycle Q Clear(g_c), s	11.9	6.5	44.2	0.0	0.0	8.1
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	707	573	2445	0	0	2445
V/C Ratio(X)	0.77	0.45	0.93	0.00	0.00	0.36
Avail Cap(c_a), veh/h	1076	871	2445	0	0	2445
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.45	0.00	0.00	1.00
Uniform Delay (d), s/veh	30.0	27.8	10.7	0.0	0.0	5.1
Incr Delay (d2), s/veh	1.9	0.6	3.9	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	2.5	22.4	0.0	0.0	4.0
LnGrp Delay(d),s/veh	31.9	28.4	14.5	0.0	0.0	5.5
LnGrp LOS	C	C	B			A
Approach Vol, veh/h	802		2269			869
Approach Delay, s/veh	30.7		14.5			5.5
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		59.4				59.4		20.6
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		46.7				46.7		25.0
Max Q Clear Time (g_c+I1), s		46.2				10.1		13.9
Green Ext Time (p_c), s		0.5				7.4		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	15.8
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1567	401	0	984	944	0
Future Volume (veh/h)	1567	401	0	984	944	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1567	401	0	984	944	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1688	776	0	1441	1441	0
Arrive On Green	0.49	0.49	0.00	0.41	0.81	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1567	401	0	984	944	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	34.1	13.8	0.0	18.3	8.5	0.0
Cycle Q Clear(g_c), s	34.1	13.8	0.0	18.3	8.5	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1688	776	0	1441	1441	0
V/C Ratio(X)	0.93	0.52	0.00	0.68	0.66	0.00
Avail Cap(c_a), veh/h	1846	849	0	1441	1441	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.86	0.00
Uniform Delay (d), s/veh	19.1	13.9	0.0	19.5	5.2	0.0
Incr Delay (d2), s/veh	8.0	0.2	0.0	2.6	2.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.0	6.1	0.0	9.4	4.1	0.0
LnGrp Delay(d),s/veh	27.1	14.1	0.0	22.1	7.2	0.0
LnGrp LOS	C	B		C	A	
Approach Vol, veh/h	1968			984	944	
Approach Delay, s/veh	24.4			22.1	7.2	
Approach LOS	C			C	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		36.7		43.3		36.7		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		28.9		42.9		28.9		
Max Q Clear Time (g_c+I1), s		20.3		36.1		10.5		
Green Ext Time (p_c), s		3.3		3.1		4.5		

Intersection Summary	
HCM 2010 Ctrl Delay	19.7
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	14.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	65	454	70	55	313	25	47	68	67	44	80	31
Future Vol, veh/h	65	454	70	55	313	25	47	68	67	44	80	31
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	65	454	70	55	313	25	47	68	67	44	80	31
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	15.5	13.3	12.9	12.6
HCM LOS	C	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	26%	22%	0%	26%	0%	28%
Vol Thru, %	37%	78%	76%	74%	86%	52%
Vol Right, %	37%	0%	24%	0%	14%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	182	292	297	212	182	155
LT Vol	47	65	0	55	0	44
Through Vol	68	227	227	157	157	80
RT Vol	67	0	70	0	25	31
Lane Flow Rate	182	292	297	212	182	155
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.335	0.519	0.505	0.398	0.33	0.293
Departure Headway (Hd)	6.622	6.517	6.235	6.778	6.547	6.8
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	546	558	582	533	552	530
Service Time	4.634	4.217	3.935	4.489	4.258	4.822
HCM Lane V/C Ratio	0.333	0.523	0.51	0.398	0.33	0.292
HCM Control Delay	12.9	16	15.1	13.9	12.5	12.6
HCM Lane LOS	B	C	C	B	B	B
HCM 95th-tile Q	1.5	3	2.8	1.9	1.4	1.2

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	108	863	18	20	679	55	5	2	17	35	0	88
Future Vol, veh/h	108	863	18	20	679	55	5	2	17	35	0	88
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	108	863	18	20	679	55	5	2	17	35	0	88

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	765	0	0	897	0	0	1484	1909	482	1452	1891	398
Stage 1	-	-	-	-	-	-	1104	1104	-	778	778	-
Stage 2	-	-	-	-	-	-	380	805	-	674	1113	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	844	-	-	753	-	-	87	68	530	92	69	601
Stage 1	-	-	-	-	-	-	225	285	-	355	405	-
Stage 2	-	-	-	-	-	-	614	393	-	410	282	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	822	-	-	743	-	-	56	46	512	64	47	585
Mov Cap-2 Maneuver	-	-	-	-	-	-	56	46	-	64	47	-
Stage 1	-	-	-	-	-	-	165	209	-	257	376	-
Stage 2	-	-	-	-	-	-	498	365	-	285	206	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2	0.4	34.7	62.7
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	145	822	-	-	743	-	-	176
HCM Lane V/C Ratio	0.166	0.131	-	-	0.027	-	-	0.699
HCM Control Delay (s)	34.7	10	1	-	10	0.2	-	62.7
HCM Lane LOS	D	B	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.6	0.5	-	-	0.1	-	-	4.2

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	82	13	9	101	2	16	2	16	5	0	1
Future Vol, veh/h	1	82	13	9	101	2	16	2	16	5	0	1
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	82	13	9	101	2	16	2	16	5	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	107	0	0	96	0	0	214	217	91	225	222	107
Stage 1	-	-	-	-	-	-	92	92	-	124	124	-
Stage 2	-	-	-	-	-	-	122	125	-	101	98	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1484	-	-	1498	-	-	743	681	967	730	677	947
Stage 1	-	-	-	-	-	-	915	819	-	880	793	-
Stage 2	-	-	-	-	-	-	882	792	-	905	814	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1479	-	-	1497	-	-	737	674	965	710	670	943
Mov Cap-2 Maneuver	-	-	-	-	-	-	737	674	-	710	670	-
Stage 1	-	-	-	-	-	-	913	817	-	876	786	-
Stage 2	-	-	-	-	-	-	875	785	-	886	812	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.6	9.6	9.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	824	1479	-	-	1497	-	-	740
HCM Lane V/C Ratio	0.041	0.001	-	-	0.006	-	-	0.008
HCM Control Delay (s)	9.6	7.4	0	-	7.4	0	-	9.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	44	7	11	64	11	19	16	21	6	37	8
Future Vol, veh/h	8	44	7	11	64	11	19	16	21	6	37	8
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	44	7	11	64	11	19	16	21	6	37	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	77	0	0	53	0	0	181	165	51	177	163	73
Stage 1	-	-	-	-	-	-	66	66	-	94	94	-
Stage 2	-	-	-	-	-	-	115	99	-	83	69	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1522	-	-	1553	-	-	781	728	1017	785	729	989
Stage 1	-	-	-	-	-	-	945	840	-	913	817	-
Stage 2	-	-	-	-	-	-	890	813	-	925	837	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1519	-	-	1550	-	-	736	716	1014	747	717	987
Mov Cap-2 Maneuver	-	-	-	-	-	-	736	716	-	747	717	-
Stage 1	-	-	-	-	-	-	938	834	-	907	810	-
Stage 2	-	-	-	-	-	-	836	806	-	883	831	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.9	9.8	10.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	813	1519	-	-	1550	-	-	753
HCM Lane V/C Ratio	0.069	0.005	-	-	0.007	-	-	0.068
HCM Control Delay (s)	9.8	7.4	0	-	7.3	0	-	10.1
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	51	2	15	61	2	8	13	15	1	4	6
Future Vol, veh/h	1	51	2	15	61	2	8	13	15	1	4	6
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	51	2	15	61	2	8	13	15	1	4	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	64	0	0	53	0	0	152	148	54	163	148	64
Stage 1	-	-	-	-	-	-	54	54	-	93	93	-
Stage 2	-	-	-	-	-	-	98	94	-	70	55	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1538	-	-	1553	-	-	815	743	1013	802	743	1000
Stage 1	-	-	-	-	-	-	958	850	-	914	818	-
Stage 2	-	-	-	-	-	-	908	817	-	940	849	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1537	-	-	1553	-	-	800	734	1011	771	734	998
Mov Cap-2 Maneuver	-	-	-	-	-	-	800	734	-	771	734	-
Stage 1	-	-	-	-	-	-	957	849	-	912	809	-
Stage 2	-	-	-	-	-	-	888	808	-	909	848	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.4	9.4	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	846	1537	-	-	1553	-	-	862
HCM Lane V/C Ratio	0.043	0.001	-	-	0.01	-	-	0.013
HCM Control Delay (s)	9.4	7.3	0	-	7.3	0	-	9.2
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	65	0	21	49	3	54
Future Vol, veh/h	65	0	21	49	3	54
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	65	0	21	49	3	54

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	68	0	160	68
Stage 1	-	-	-	-	68	-
Stage 2	-	-	-	-	92	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1533	-	831	995
Stage 1	-	-	-	-	955	-
Stage 2	-	-	-	-	932	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1529	-	817	993
Mov Cap-2 Maneuver	-	-	-	-	817	-
Stage 1	-	-	-	-	953	-
Stage 2	-	-	-	-	918	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	982	-	-	1529	-
HCM Lane V/C Ratio	0.058	-	-	0.014	-
HCM Control Delay (s)	8.9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	41	55	8	5	73	5	2	4	3	2	3	41
Future Vol, veh/h	41	55	8	5	73	5	2	4	3	2	3	41
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	41	55	8	5	73	5	2	4	3	2	3	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	80	0	0	64	0	0	251	232	60	233	234	79
Stage 1	-	-	-	-	-	-	142	142	-	88	88	-
Stage 2	-	-	-	-	-	-	109	90	-	145	146	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1518	-	-	1538	-	-	702	668	1005	722	666	981
Stage 1	-	-	-	-	-	-	861	779	-	920	822	-
Stage 2	-	-	-	-	-	-	896	820	-	858	776	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1515	-	-	1537	-	-	654	645	1004	698	643	979
Mov Cap-2 Maneuver	-	-	-	-	-	-	654	645	-	698	643	-
Stage 1	-	-	-	-	-	-	836	756	-	892	818	-
Stage 2	-	-	-	-	-	-	852	816	-	827	753	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.9	0.4	10	9.1
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	735	1515	-	-	1537	-	-	931
HCM Lane V/C Ratio	0.012	0.027	-	-	0.003	-	-	0.049
HCM Control Delay (s)	10	7.4	0	-	7.3	0	-	9.1
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.2

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	21	7	23	44	56	6	136	18	93	215	54
Future Vol, veh/h	36	21	7	23	44	56	6	136	18	93	215	54
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	21	7	23	44	56	6	136	18	93	215	54
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	9.1	9.1	11.4
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	56%	19%	26%
Vol Thru, %	85%	33%	36%	59%
Vol Right, %	11%	11%	46%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	160	64	123	362
LT Vol	6	36	23	93
Through Vol	136	21	44	215
RT Vol	18	7	56	54
Lane Flow Rate	160	64	123	362
Geometry Grp	1	1	1	1
Degree of Util (X)	0.212	0.095	0.17	0.458
Departure Headway (Hd)	4.763	5.357	4.987	4.558
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	749	663	713	786
Service Time	2.823	3.435	3.058	2.608
HCM Lane V/C Ratio	0.214	0.097	0.173	0.461
HCM Control Delay	9.1	9	9.1	11.4
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.8	0.3	0.6	2.4

Intersection	
Intersection Delay, s/veh	45.5
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	102	54	37	32	36	112	19	306	67	104	413	105
Future Vol, veh/h	102	54	37	32	36	112	19	306	67	104	413	105
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	102	54	37	32	36	112	19	306	67	104	413	105
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	15.6	14.4	22.9	78
HCM LOS	C	B	C	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	53%	18%	17%
Vol Thru, %	78%	28%	20%	66%
Vol Right, %	17%	19%	62%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	392	193	180	622
LT Vol	19	102	32	104
Through Vol	306	54	36	413
RT Vol	67	37	112	105
Lane Flow Rate	392	193	180	622
Geometry Grp	1	1	1	1
Degree of Util (X)	0.689	0.394	0.355	1.059
Departure Headway (Hd)	6.581	7.662	7.412	6.128
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	553	473	488	597
Service Time	4.581	5.662	5.412	4.128
HCM Lane V/C Ratio	0.709	0.408	0.369	1.042
HCM Control Delay	22.9	15.6	14.4	78
HCM Lane LOS	C	C	B	F
HCM 95th-tile Q	5.3	1.9	1.6	17.6

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	13	97	1	13	0	148	3	5	0	0	0
Future Vol, veh/h	2	13	97	1	13	0	148	3	5	0	0	0
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	13	97	1	13	0	148	3	5	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	13	0	0	111	0	0	82	82	63	85	130	13
Stage 1	-	-	-	-	-	-	67	67	-	15	15	-
Stage 2	-	-	-	-	-	-	15	15	-	70	115	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1606	-	-	1479	-	-	905	808	1002	901	761	1067
Stage 1	-	-	-	-	-	-	943	839	-	1005	883	-
Stage 2	-	-	-	-	-	-	1005	883	-	940	800	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1606	-	-	1478	-	-	903	806	1001	893	759	1067
Mov Cap-2 Maneuver	-	-	-	-	-	-	903	806	-	893	759	-
Stage 1	-	-	-	-	-	-	941	837	-	1004	882	-
Stage 2	-	-	-	-	-	-	1004	882	-	931	798	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.5	9.8	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	904	1606	-	-	1478	-	-	-
HCM Lane V/C Ratio	0.173	0.001	-	-	0.001	-	-	-
HCM Control Delay (s)	9.8	7.2	0	-	7.4	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	53	26	12	872	758	151
Future Vol, veh/h	53	26	12	872	758	151
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	53	26	12	872	758	151

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1657	761	912	0	-	0
Stage 1	761	-	-	-	-	-
Stage 2	896	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	108	405	747	-	-	-
Stage 1	461	-	-	-	-	-
Stage 2	399	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	104	404	745	-	-	-
Mov Cap-2 Maneuver	298	-	-	-	-	-
Stage 1	446	-	-	-	-	-
Stage 2	398	-	-	-	-	-

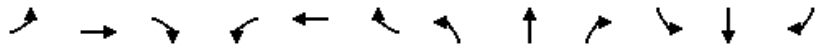
Approach	EB	NB	SB
HCM Control Delay, s	19.5	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	745	-	326	-	-
HCM Lane V/C Ratio	0.016	-	0.242	-	-
HCM Control Delay (s)	9.9	0	19.5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.9	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	654	18	409	499	0	1009
Future Volume (veh/h)	654	18	409	499	0	1009
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	654	18	409	0	0	1009
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	715	20	1333	0	0	1333
Arrive On Green	0.42	0.42	0.38	0.00	0.00	0.38
Sat Flow, veh/h	1719	47	3725	0	0	3725
Grp Volume(v), veh/h	673	0	409	0	0	1009
Grp Sat Flow(s),veh/h/ln	1768	0	1770	0	0	1770
Q Serve(g_s), s	13.0	0.0	2.9	0.0	0.0	9.0
Cycle Q Clear(g_c), s	13.0	0.0	2.9	0.0	0.0	9.0
Prop In Lane	0.97	0.03		0.00	0.00	
Lane Grp Cap(c), veh/h	735	0	1333	0	0	1333
V/C Ratio(X)	0.92	0.00	0.31	0.00	0.00	0.76
Avail Cap(c_a), veh/h	832	0	1518	0	0	1518
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	10.0	0.0	7.9	0.0	0.0	9.8
Incr Delay (d2), s/veh	12.8	0.0	0.2	0.0	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	0.0	1.4	0.0	0.0	4.7
LnGrp Delay(d),s/veh	22.8	0.0	8.1	0.0	0.0	11.9
LnGrp LOS	C		A			B
Approach Vol, veh/h	673		409			1009
Approach Delay, s/veh	22.8		8.1			11.9
Approach LOS	C		A			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		18.1		18.0		18.1		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		15.5		17.0		15.5		
Max Q Clear Time (g_c+I1), s		4.9		15.0		11.0		
Green Ext Time (p_c), s		2.2		0.1		2.6		

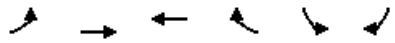
Intersection Summary	
HCM 2010 Ctrl Delay	14.7
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	379	529	33	482	136	166	288	23	76	410	19
Future Volume (veh/h)	42	379	529	33	482	136	166	288	23	76	410	19
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.90	1.00		0.97	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	42	379	529	33	482	136	166	288	23	76	410	19
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	752	897	63	743	212	186	322	425	85	457	450
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.28	0.28	0.28	0.29	0.29	0.29
Sat Flow, veh/h	169	2335	1421	87	2308	659	669	1160	1533	289	1559	1535
Grp Volume(v), veh/h	154	267	529	343	0	308	454	0	23	486	0	19
Grp Sat Flow(s),veh/h/ln	894	1610	1421	1559	0	1494	1829	0	1533	1848	0	1535
Q Serve(g_s), s	4.0	15.1	26.6	6.2	0.0	19.7	26.7	0.0	1.2	28.2	0.0	1.0
Cycle Q Clear(g_c), s	23.7	15.1	26.6	21.3	0.0	19.7	26.7	0.0	1.2	28.2	0.0	1.0
Prop In Lane	0.27		1.00	0.10		0.44	0.37		1.00	0.16		1.00
Lane Grp Cap(c), veh/h	329	518	897	537	0	481	508	0	425	542	0	450
V/C Ratio(X)	0.47	0.52	0.59	0.64	0.00	0.64	0.89	0.00	0.05	0.90	0.00	0.04
Avail Cap(c_a), veh/h	329	518	897	537	0	481	654	0	548	694	0	576
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.6	30.8	14.3	32.2	0.0	32.4	38.8	0.0	29.6	37.9	0.0	28.3
Incr Delay (d2), s/veh	4.7	3.6	2.8	5.7	0.0	6.4	12.4	0.0	0.1	12.1	0.0	0.0
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	4.7	7.2	16.9	10.0	0.0	9.0	15.2	0.0	0.5	16.1	0.0	0.4
LnGrp Delay(d),s/veh	36.3	34.5	17.1	37.9	0.0	38.8	51.2	0.0	29.7	50.0	0.0	28.3
LnGrp LOS	D	C	B	D		D	D		C	D		C
Approach Vol, veh/h		950			651			477			505	
Approach Delay, s/veh		25.1			38.3			50.2			49.2	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		40.0		35.0		40.0		36.8
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		36.0		40.0		36.0		42.0
Max Q Clear Time (g_c+I1), s		28.6		28.7		23.3		30.2
Green Ext Time (p_c), s		3.0		2.4		3.6		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	37.8
HCM 2010 LOS	D



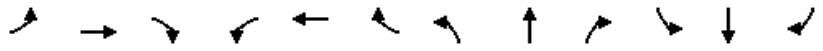
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	374	391	225	458	512	310
Future Volume (veh/h)	374	391	225	458	512	310
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	374	391	225	458	512	310
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	407	1165	681	1052	551	855
Arrive On Green	0.23	0.63	0.37	0.37	0.31	0.31
Sat Flow, veh/h	1774	1863	1863	1533	1774	1583
Grp Volume(v), veh/h	374	391	225	458	512	310
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1533	1774	1583
Q Serve(g_s), s	26.9	13.0	11.4	18.1	36.6	14.7
Cycle Q Clear(g_c), s	26.9	13.0	11.4	18.1	36.6	14.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	407	1165	681	1052	551	855
V/C Ratio(X)	0.92	0.34	0.33	0.44	0.93	0.36
Avail Cap(c_a), veh/h	610	1165	681	1052	811	1087
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	49.2	11.6	30.0	9.8	43.7	17.2
Incr Delay (d2), s/veh	14.3	0.8	1.3	1.3	11.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.8	6.9	6.1	15.4	19.7	16.4
LnGrp Delay(d),s/veh	63.5	12.4	31.3	11.1	55.6	17.4
LnGrp LOS	E	B	C	B	E	B
Approach Vol, veh/h		765	683		822	
Approach Delay, s/veh		37.4	17.7		41.2	
Approach LOS		D	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		86.0		44.8	34.0	52.0		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 82		* 60	45.0	* 33		
Max Q Clear Time (g_c+I1), s		15.0		38.6	28.9	20.1		
Green Ext Time (p_c), s		1.6		2.0	1.0	1.6		

Intersection Summary	
HCM 2010 Ctrl Delay	32.9
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



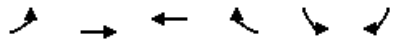
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	197	132	12	45	19	173	1	807	82	289	941	35
Future Volume (veh/h)	197	132	12	45	19	173	1	807	82	289	941	35
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	197	132	12	45	19	173	1	807	82	289	941	35
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	281	156	13	327	125	851	45	924	94	440	2056	76
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.25	0.59	0.59
Sat Flow, veh/h	715	530	45	851	426	1558	1	3168	322	1774	3480	129
Grp Volume(v), veh/h	341	0	0	64	0	173	475	0	415	289	479	497
Grp Sat Flow(s),veh/h/ln	1290	0	0	1278	0	1558	1862	0	1629	1774	1770	1840
Q Serve(g_s), s	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.4	11.7	12.1	12.1
Cycle Q Clear(g_c), s	20.6	0.0	0.0	2.6	0.0	0.0	19.4	0.0	19.4	11.7	12.1	12.1
Prop In Lane	0.58		0.04	0.70		1.00	0.00		0.20	1.00		0.07
Lane Grp Cap(c), veh/h	450	0	0	453	0	851	588	0	475	440	1045	1087
V/C Ratio(X)	0.76	0.00	0.00	0.14	0.00	0.20	0.81	0.00	0.87	0.66	0.46	0.46
Avail Cap(c_a), veh/h	511	0	0	512	0	918	634	0	515	440	1045	1087
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	0.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	28.0	0.0	0.0	20.8	0.0	9.4	26.9	0.0	26.9	27.0	9.2	9.2
Incr Delay (d2), s/veh	5.3	0.0	0.0	0.1	0.0	0.1	11.3	0.0	19.6	2.4	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	7.9	0.0	0.0	1.1	0.0	1.9	11.7	0.0	11.2	6.0	6.2	6.4
LnGrp Delay(d),s/veh	33.2	0.0	0.0	20.9	0.0	9.5	38.2	0.0	46.5	29.4	10.4	10.3
LnGrp LOS	C			C		A	D		D	C	B	B
Approach Vol, veh/h		341			237			890			1265	
Approach Delay, s/veh		33.2			12.6			42.1			14.7	
Approach LOS		C			B			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		51.9		28.1	24.4	27.4		28.1
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		43.8		27.0	14.9	* 25		27.0
Max Q Clear Time (g_c+I1), s		14.1		22.6	13.7	21.4		4.6
Green Ext Time (p_c), s		7.4		0.8	0.1	1.9		0.7

Intersection Summary		
HCM 2010 Ctrl Delay		25.7
HCM 2010 LOS		C

Notes

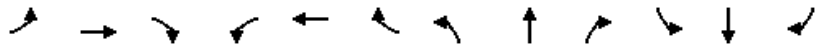
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	578	1704	1000	292	570	846
Future Volume (veh/h)	578	1704	1000	292	570	846
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	578	1704	1000	292	570	846
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	654	2735	1148	335	638	1532
Arrive On Green	0.19	0.54	0.30	0.30	0.36	0.36
Sat Flow, veh/h	3442	5253	4036	1128	1774	2787
Grp Volume(v), veh/h	578	1704	876	416	570	846
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1606	1774	1393
Q Serve(g_s), s	12.8	18.2	19.1	19.2	23.7	15.3
Cycle Q Clear(g_c), s	12.8	18.2	19.1	19.2	23.7	15.3
Prop In Lane	1.00			0.70	1.00	1.00
Lane Grp Cap(c), veh/h	654	2735	1006	477	638	1532
V/C Ratio(X)	0.88	0.62	0.87	0.87	0.89	0.55
Avail Cap(c_a), veh/h	661	2735	1006	477	682	1600
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	30.8	12.5	26.0	26.1	23.6	11.4
Incr Delay (d2), s/veh	13.4	1.1	10.3	19.3	13.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	8.6	10.3	11.0	14.0	5.9
LnGrp Delay(d),s/veh	44.2	13.6	36.3	45.4	37.3	11.7
LnGrp LOS	D	B	D	D	D	B
Approach Vol, veh/h		2282	1292		1416	
Approach Delay, s/veh		21.4	39.2		22.0	
Approach LOS		C	D		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	18.8	27.2				46.0		32.1
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	15.0	23.0				42.0		30.0
Max Q Clear Time (g_c+I1), s	14.8	21.2				20.2		25.7
Green Ext Time (p_c), s	0.1	1.3				13.1		2.4

Intersection Summary	
HCM 2010 Ctrl Delay	26.2
HCM 2010 LOS	C



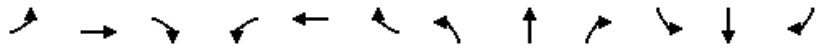
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	472	50	209	29	17	27	99	775	90	28	1112	449
Future Volume (veh/h)	472	50	209	29	17	27	99	775	90	28	1112	449
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.98	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	508	0	209	29	17	27	99	775	90	28	1112	449
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	580	0	257	104	37	60	520	2311	1101	36	1331	838
Arrive On Green	0.16	0.00	0.16	0.06	0.06	0.06	0.59	1.00	1.00	0.02	0.38	0.38
Sat Flow, veh/h	3548	0	1572	1774	641	1017	1774	3539	1545	1774	3539	1540
Grp Volume(v), veh/h	508	0	209	29	0	44	99	775	90	28	1112	449
Grp Sat Flow(s),veh/h/ln	1774	0	1572	1774	0	1658	1774	1770	1545	1774	1770	1540
Q Serve(g_s), s	22.4	0.0	20.5	2.5	0.0	4.1	4.2	0.0	0.0	2.5	45.7	30.3
Cycle Q Clear(g_c), s	22.4	0.0	20.5	2.5	0.0	4.1	4.2	0.0	0.0	2.5	45.7	30.3
Prop In Lane	1.00		1.00	1.00		0.61	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	580	0	257	104	0	97	520	2311	1101	36	1331	838
V/C Ratio(X)	0.88	0.00	0.81	0.28	0.00	0.45	0.19	0.34	0.08	0.79	0.84	0.54
Avail Cap(c_a), veh/h	820	0	363	299	0	280	520	2311	1101	67	1398	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.73	0.73	0.73	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.3	0.0	64.6	72.1	0.0	72.8	24.2	0.0	0.0	78.0	45.4	23.9
Incr Delay (d2), s/veh	7.0	0.0	8.0	1.1	0.0	2.4	0.0	0.3	0.1	13.1	6.3	2.5
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	11.6	0.0	9.5	1.3	0.0	1.9	2.0	0.1	0.0	1.4	23.6	18.0
LnGrp Delay(d),s/veh	72.3	0.0	72.5	73.2	0.0	75.3	24.3	0.3	0.1	91.1	51.8	26.4
LnGrp LOS	E		E	E		E	C	A	A	F	D	C
Approach Vol, veh/h		717			73			964			1589	
Approach Delay, s/veh		72.4			74.4			2.7			45.3	
Approach LOS		E			E			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.2	109.1		13.6	51.5	64.8		30.2
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.6	* 4.6		4.0
Max Green Setting (Gmax), s	6.3	73.2		* 27	16.0	* 63		37.0
Max Q Clear Time (g_c+I1), s	4.5	2.0		6.1	6.2	47.7		24.4
Green Ext Time (p_c), s	0.0	15.4		0.2	0.1	12.4		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	39.5
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.



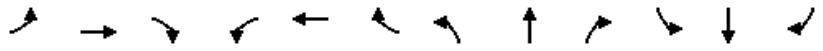
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	397	95	241	441	32	129	162	272	53	216	100
Future Volume (veh/h)	40	397	95	241	441	32	129	162	272	53	216	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.97	1.00		0.97
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	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	40	397	95	241	441	32	129	162	272	53	216	100
Adj No. of Lanes	1	1	1	1	1	0	0	1	1	0	1	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	60	486	398	296	674	49	238	264	530	107	285	117
Arrive On Green	0.03	0.26	0.26	0.17	0.39	0.39	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1774	1863	1526	1774	1712	124	405	762	1530	85	823	338
Grp Volume(v), veh/h	40	397	95	241	0	473	291	0	272	369	0	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1526	1774	0	1836	1168	0	1530	1245	0	0
Q Serve(g_s), s	1.2	10.6	2.6	7.0	0.0	11.2	0.0	0.0	7.5	4.2	0.0	0.0
Cycle Q Clear(g_c), s	1.2	10.6	2.6	7.0	0.0	11.2	11.4	0.0	7.5	15.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.07	0.44		1.00	0.14		0.27
Lane Grp Cap(c), veh/h	60	486	398	296	0	723	502	0	530	509	0	0
V/C Ratio(X)	0.67	0.82	0.24	0.82	0.00	0.65	0.58	0.00	0.51	0.73	0.00	0.00
Avail Cap(c_a), veh/h	134	562	460	368	0	796	571	0	606	586	0	0
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	25.3	18.4	15.5	21.3	0.0	13.1	14.4	0.0	13.8	15.7	0.0	0.0
Incr Delay (d2), s/veh	12.3	8.1	0.3	10.9	0.0	1.7	1.1	0.0	0.8	3.8	0.0	0.0
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	0.8	6.5	1.1	4.3	0.0	6.0	3.8	0.0	3.3	5.7	0.0	0.0
LnGrp Delay(d),s/veh	37.7	26.6	15.8	32.2	0.0	14.8	15.5	0.0	14.6	19.4	0.0	0.0
LnGrp LOS	D	C	B	C		B	B		B	B		
Approach Vol, veh/h		532			714			563			369	
Approach Delay, s/veh		25.5			20.7			15.1			19.4	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		22.4	12.8	17.8		22.4	5.8	24.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		21.0	11.0	16.0		21.0	4.0	23.0
Max Q Clear Time (g_c+I1), s		13.4	9.0	12.6		17.6	3.2	13.2
Green Ext Time (p_c), s		1.9	0.1	0.9		0.8	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	20.2
HCM 2010 LOS	C

Notes

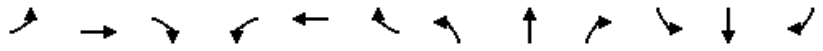
User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	320	0	321	365	233	0	1942	115	173	1538	13
Future Volume (veh/h)	2	320	0	321	365	233	0	1942	115	173	1538	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	5	20	0	118	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	2	320	0	321	365	233	0	1942	115	173	1538	0
Adj No. of Lanes	1	2	0	1	1	1	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	4	444	0	341	555	473	1	2450	55	191	2192	981
Arrive On Green	0.00	0.10	0.00	0.19	0.30	0.30	0.00	0.51	0.51	0.11	0.64	0.00
Sat Flow, veh/h	1774	3632	0	1774	1863	1549	1774	4908	290	1774	3539	1583
Grp Volume(v), veh/h	2	320	0	321	365	233	0	1339	718	173	1538	0
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1774	1863	1549	1774	1695	1807	1774	1770	1583
Q Serve(g_s), s	0.2	16.5	0.0	33.0	31.8	18.1	0.0	59.5	60.0	17.8	51.5	0.0
Cycle Q Clear(g_c), s	0.2	16.5	0.0	33.0	31.8	18.1	0.0	59.5	60.0	17.8	51.5	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	4	444	0	341	555	473	1	1621	882	191	2192	981
V/C Ratio(X)	0.53	0.72	0.00	0.94	0.66	0.49	0.00	0.83	0.81	0.90	0.70	0.00
Avail Cap(c_a), veh/h	38	440	0	441	654	544	38	1722	918	249	2258	1010
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	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	95.6	80.6	0.0	76.3	57.9	35.2	0.0	51.3	50.8	84.5	24.7	0.0
Incr Delay (d2), s/veh	85.0	5.7	0.0	24.7	1.9	0.8	0.0	5.0	8.1	27.9	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	1.7	25.4	0.0	96.4	76.7	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	8.5	0.0	19.1	18.3	15.6	0.0	66.7	67.8	10.6	27.9	0.0
LnGrp Delay(d),s/veh	180.6	86.3	0.0	101.1	61.5	61.4	0.0	152.7	135.6	112.5	26.6	0.0
LnGrp LOS	F	F		F	E	E		F	F	F	C	
Approach Vol, veh/h		322			919			2057			1711	
Approach Delay, s/veh		86.9			75.3			146.7			35.2	
Approach LOS		F			E			F			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	24.1	98.0	39.7	23.3	0.0	122.1	4.4	58.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	94.0	46.0	23.0	4.0	116.0	4.0	65.0
Max Q Clear Time (g_c+I1), s	19.8	62.0	35.0	18.5	0.0	53.5	2.2	33.8
Green Ext Time (p_c), s	0.2	20.6	0.7	0.8	0.0	20.1	0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	91.7
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	246	452	112	677	443	293	143	2217	613	319	1783	135
Future Volume (veh/h)	246	452	112	677	443	293	143	2217	613	319	1783	135
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		0.96	1.00		0.96	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	246	452	112	677	443	293	143	2217	613	319	1783	135
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	415	102	551	362	414	142	1861	1075	256	1840	1004
Arrive On Green	0.11	0.15	0.15	0.16	0.19	0.19	0.08	0.53	0.53	0.07	0.52	0.52
Sat Flow, veh/h	1774	2793	686	3442	1863	1527	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	246	285	279	677	443	293	143	2217	613	319	1783	135
Grp Sat Flow(s),veh/h/ln	1774	1770	1709	1721	1863	1527	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	20.0	26.0	26.0	28.0	34.0	30.4	14.0	92.0	35.5	13.0	85.3	6.0
Cycle Q Clear(g_c), s	20.0	26.0	26.0	28.0	34.0	30.4	14.0	92.0	35.5	13.0	85.3	6.0
Prop In Lane	1.00		0.40	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	203	263	254	551	362	414	142	1861	1075	256	1840	1004
V/C Ratio(X)	1.21	1.08	1.10	1.23	1.22	0.71	1.01	1.19	0.57	1.25	0.97	0.13
Avail Cap(c_a), veh/h	203	263	254	551	362	414	142	1861	1075	256	1840	1004
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	77.5	74.5	74.5	73.5	70.5	57.9	80.5	41.5	14.2	81.0	40.6	12.8
Incr Delay (d2), s/veh	132.6	79.5	85.7	118.5	123.1	5.4	77.6	91.8	2.2	139.8	14.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.3	18.5	18.3	22.4	29.9	13.5	9.9	68.4	15.8	11.1	45.4	2.7
LnGrp Delay(d),s/veh	210.1	154.0	160.2	192.0	193.6	63.4	158.1	133.3	16.4	220.8	55.4	13.1
LnGrp LOS	F	F	F	F	F	E	F	F	B	F	E	B
Approach Vol, veh/h		810			1413			2973			2237	
Approach Delay, s/veh		173.2			165.8			110.4			76.4	
Approach LOS		F			F			F			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	17.0	96.0	32.0	30.0	18.0	95.0	24.0	38.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	92.0	28.0	26.0	14.0	91.0	20.0	34.0
Max Q Clear Time (g_c+I1), s	15.0	94.0	30.0	28.0	16.0	87.3	22.0	36.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	117.6
HCM 2010 LOS	F

Notes

User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1033	619	1476	0	0	1286
Future Volume (veh/h)	1033	619	1476	0	0	1286
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	1033	619	1476	0	0	1286
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	1192	965	1946	0	0	1946
Arrive On Green	0.35	0.35	0.55	0.00	0.00	0.55
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	1033	619	1476	0	0	1286
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	22.4	14.9	25.8	0.0	0.0	20.5
Cycle Q Clear(g_c), s	22.4	14.9	25.8	0.0	0.0	20.5
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	1192	965	1946	0	0	1946
V/C Ratio(X)	0.87	0.64	0.76	0.00	0.00	0.66
Avail Cap(c_a), veh/h	1282	1038	1946	0	0	1946
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.64	0.00	0.00	1.00
Uniform Delay (d), s/veh	24.4	22.0	13.9	0.0	0.0	12.7
Incr Delay (d2), s/veh	6.2	1.2	1.8	0.0	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.6	5.8	13.0	0.0	0.0	10.5
LnGrp Delay(d),s/veh	30.6	23.2	15.7	0.0	0.0	14.5
LnGrp LOS	C	C	B			B
Approach Vol, veh/h	1652		1476			1286
Approach Delay, s/veh	27.8		15.7			14.5
Approach LOS	C		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		48.1				48.1		31.9
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		41.9				41.9		29.8
Max Q Clear Time (g_c+I1), s		27.8				22.5		24.4
Green Ext Time (p_c), s		9.1				9.6		3.3

Intersection Summary	
HCM 2010 Ctrl Delay	19.9
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1091	320	0	848	1758	0
Future Volume (veh/h)	1091	320	0	848	1758	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1091	320	0	848	1758	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1183	544	0	1960	1960	0
Arrive On Green	0.34	0.34	0.00	0.55	0.74	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1091	320	0	848	1758	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	24.4	13.3	0.0	11.2	30.8	0.0
Cycle Q Clear(g_c), s	24.4	13.3	0.0	11.2	30.8	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1183	544	0	1960	1960	0
V/C Ratio(X)	0.92	0.59	0.00	0.43	0.90	0.00
Avail Cap(c_a), veh/h	1248	574	0	1960	1960	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.58	0.00
Uniform Delay (d), s/veh	25.2	21.6	0.0	10.5	8.8	0.0
Incr Delay (d2), s/veh	10.7	0.9	0.0	0.7	4.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.3	5.9	0.0	5.6	15.5	0.0
LnGrp Delay(d),s/veh	35.9	22.5	0.0	11.2	13.0	0.0
LnGrp LOS	D	C		B	B	
Approach Vol, veh/h	1411			848	1758	
Approach Delay, s/veh	32.8			11.2	13.0	
Approach LOS	C			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		48.4		31.6		48.4		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		42.8		29.0		42.8		
Max Q Clear Time (g_c+I1), s		13.2		26.4		32.8		
Green Ext Time (p_c), s		4.4		1.1		6.5		

Intersection Summary	
HCM 2010 Ctrl Delay	19.6
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	28.7
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	39	413	58	115	536	45	74	127	90	30	145	83
Future Vol, veh/h	39	413	58	115	536	45	74	127	90	30	145	83
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	413	58	115	536	45	74	127	90	30	145	83
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	22.1	37.2	25.3	22.4
HCM LOS	C	E	D	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	25%	16%	0%	30%	0%	12%
Vol Thru, %	44%	84%	78%	70%	86%	56%
Vol Right, %	31%	0%	22%	0%	14%	32%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	291	246	265	383	313	258
LT Vol	74	39	0	115	0	30
Through Vol	127	207	207	268	268	145
RT Vol	90	0	58	0	45	83
Lane Flow Rate	291	246	264	383	313	258
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.655	0.572	0.599	0.872	0.69	0.589
Departure Headway (Hd)	8.103	8.395	8.153	8.198	7.938	8.222
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	445	430	442	444	457	439
Service Time	6.146	6.142	5.9	5.945	5.685	6.269
HCM Lane V/C Ratio	0.654	0.572	0.597	0.863	0.685	0.588
HCM Control Delay	25.3	21.8	22.4	45.9	26.6	22.4
HCM Lane LOS	D	C	C	E	D	C
HCM 95th-tile Q	4.6	3.5	3.8	9	5.2	3.7

Intersection	
Int Delay, s/veh	20.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	65	877	7	8	509	54	9	6	35	107	2	96
Future Vol, veh/h	65	877	7	8	509	54	9	6	35	107	2	96
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	65	877	7	8	509	54	9	6	35	107	2	96

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	594	0	0	900	0	0	1299	1637	483	1180	1613	313
Stage 1	-	-	-	-	-	-	1027	1027	-	583	583	-
Stage 2	-	-	-	-	-	-	272	610	-	597	1030	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	978	-	-	751	-	-	119	100	530	146	103	683
Stage 1	-	-	-	-	-	-	251	310	-	465	497	-
Stage 2	-	-	-	-	-	-	711	483	-	456	309	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	953	-	-	741	-	-	87	82	512	109	84	665
Mov Cap-2 Maneuver	-	-	-	-	-	-	87	82	-	109	84	-
Stage 1	-	-	-	-	-	-	214	265	-	392	476	-
Stage 2	-	-	-	-	-	-	596	463	-	352	264	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	0.2	28.3	167.3
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	204	953	-	-	741	-	-	178
HCM Lane V/C Ratio	0.245	0.068	-	-	0.011	-	-	1.152
HCM Control Delay (s)	28.3	9.1	0.5	-	9.9	0.1	-	167.3
HCM Lane LOS	D	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.9	0.2	-	-	0	-	-	10.6

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	101	29	72	157	1	13	1	79	4	5	0
Future Vol, veh/h	0	101	29	72	157	1	13	1	79	4	5	0
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	101	29	72	157	1	13	1	79	4	5	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	162	0	0	131	0	0	422	423	118	463	437	163
Stage 1	-	-	-	-	-	-	117	117	-	306	306	-
Stage 2	-	-	-	-	-	-	305	306	-	157	131	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1417	-	-	1454	-	-	542	522	934	509	513	882
Stage 1	-	-	-	-	-	-	888	799	-	704	662	-
Stage 2	-	-	-	-	-	-	705	662	-	845	788	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1412	-	-	1453	-	-	515	492	932	444	483	878
Mov Cap-2 Maneuver	-	-	-	-	-	-	515	492	-	444	483	-
Stage 1	-	-	-	-	-	-	887	798	-	702	624	-
Stage 2	-	-	-	-	-	-	661	624	-	772	787	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.4	9.9	12.9
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	830	1412	-	-	1453	-	-	465
HCM Lane V/C Ratio	0.112	-	-	-	0.05	-	-	0.019
HCM Control Delay (s)	9.9	0	-	-	7.6	0	-	12.9
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0.2	-	-	0.1

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	81	20	89	115	2	5	12	17	6	54	29
Future Vol, veh/h	7	81	20	89	115	2	5	12	17	6	54	29
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	81	20	89	115	2	5	12	17	6	54	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	119	0	0	103	0	0	444	404	94	417	413	119
Stage 1	-	-	-	-	-	-	107	107	-	296	296	-
Stage 2	-	-	-	-	-	-	337	297	-	121	117	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1469	-	-	1489	-	-	524	536	963	546	529	933
Stage 1	-	-	-	-	-	-	898	807	-	712	668	-
Stage 2	-	-	-	-	-	-	677	668	-	883	799	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1467	-	-	1487	-	-	440	497	961	497	491	931
Mov Cap-2 Maneuver	-	-	-	-	-	-	440	497	-	497	491	-
Stage 1	-	-	-	-	-	-	892	801	-	707	624	-
Stage 2	-	-	-	-	-	-	560	624	-	849	793	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	3.3	11	12.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	639	1467	-	-	1487	-	-	581
HCM Lane V/C Ratio	0.053	0.005	-	-	0.06	-	-	0.153
HCM Control Delay (s)	11	7.5	0	-	7.6	0	-	12.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.2	-	-	0.5

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	89	10	64	192	1	10	3	18	3	7	8
Future Vol, veh/h	10	89	10	64	192	1	10	3	18	3	7	8
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	89	10	64	192	1	10	3	18	3	7	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	194	0	0	99	0	0	443	436	96	449	441	195
Stage 1	-	-	-	-	-	-	114	114	-	322	322	-
Stage 2	-	-	-	-	-	-	329	322	-	127	119	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1379	-	-	1494	-	-	525	514	960	520	510	846
Stage 1	-	-	-	-	-	-	891	801	-	690	651	-
Stage 2	-	-	-	-	-	-	684	651	-	877	797	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1378	-	-	1494	-	-	492	485	958	485	481	845
Mov Cap-2 Maneuver	-	-	-	-	-	-	492	485	-	485	481	-
Stage 1	-	-	-	-	-	-	884	795	-	684	619	-
Stage 2	-	-	-	-	-	-	637	619	-	849	791	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	1.9	10.5	11.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	684	1378	-	-	1494	-	-	596
HCM Lane V/C Ratio	0.045	0.007	-	-	0.043	-	-	0.03
HCM Control Delay (s)	10.5	7.6	0	-	7.5	0	-	11.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	4.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	167	2	38	84	2	158
Future Vol, veh/h	167	2	38	84	2	158
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	167	2	38	84	2	158

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	172	0	332	171
Stage 1	-	-	-	-	171	-
Stage 2	-	-	-	-	161	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1405	-	663	873
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	868	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1401	-	642	871
Mov Cap-2 Maneuver	-	-	-	-	642	-
Stage 1	-	-	-	-	857	-
Stage 2	-	-	-	-	843	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	867	-	-	1401	-
HCM Lane V/C Ratio	0.185	-	-	0.027	-
HCM Control Delay (s)	10.1	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	96	90	1	2	149	3	3	5	5	6	5	79
Future Vol, veh/h	96	90	1	2	149	3	3	5	5	6	5	79
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	96	90	1	2	149	3	3	5	5	6	5	79

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	154	0	0	92	0	0	482	442	92	445	441	154
Stage 1	-	-	-	-	-	-	284	284	-	157	157	-
Stage 2	-	-	-	-	-	-	198	158	-	288	284	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1426	-	-	1503	-	-	495	510	965	523	510	892
Stage 1	-	-	-	-	-	-	723	676	-	845	768	-
Stage 2	-	-	-	-	-	-	804	767	-	720	676	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1424	-	-	1502	-	-	422	472	964	487	472	890
Mov Cap-2 Maneuver	-	-	-	-	-	-	422	472	-	487	472	-
Stage 1	-	-	-	-	-	-	671	627	-	783	766	-
Stage 2	-	-	-	-	-	-	727	765	-	660	627	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4	0.1	11.5	10
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	568	1424	-	-	1502	-	-	806
HCM Lane V/C Ratio	0.023	0.067	-	-	0.001	-	-	0.112
HCM Control Delay (s)	11.5	7.7	0	-	7.4	0	-	10
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.4

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	33	33	7	14	41	55	5	130	31	62	152	35
Future Vol, veh/h	33	33	7	14	41	55	5	130	31	62	152	35
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	33	7	14	41	55	5	130	31	62	152	35
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	8.7	8.6	8.8	9.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	45%	13%	25%
Vol Thru, %	78%	45%	37%	61%
Vol Right, %	19%	10%	50%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	166	73	110	249
LT Vol	5	33	14	62
Through Vol	130	33	41	152
RT Vol	31	7	55	35
Lane Flow Rate	166	73	110	249
Geometry Grp	1	1	1	1
Degree of Util (X)	0.21	0.103	0.144	0.314
Departure Headway (Hd)	4.558	5.058	4.705	4.534
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	785	705	759	792
Service Time	2.601	3.111	2.754	2.574
HCM Lane V/C Ratio	0.211	0.104	0.145	0.314
HCM Control Delay	8.8	8.7	8.6	9.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	0.3	0.5	1.3

Intersection	
Intersection Delay, s/veh	40.3
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	104	29	49	88	53	189	29	260	49	57	411	67
Future Vol, veh/h	104	29	49	88	53	189	29	260	49	57	411	67
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	104	29	49	88	53	189	29	260	49	57	411	67
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	16.8	24.1	24.8	68.1
HCM LOS	C	C	C	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	57%	27%	11%
Vol Thru, %	77%	16%	16%	77%
Vol Right, %	14%	27%	57%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	338	182	330	535
LT Vol	29	104	88	57
Through Vol	260	29	53	411
RT Vol	49	49	189	67
Lane Flow Rate	338	182	330	535
Geometry Grp	1	1	1	1
Degree of Util (X)	0.683	0.41	0.669	1.01
Departure Headway (Hd)	7.275	8.221	7.3	6.794
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	493	440	492	530
Service Time	5.37	6.221	5.392	4.875
HCM Lane V/C Ratio	0.686	0.414	0.671	1.009
HCM Control Delay	24.8	16.8	24.1	68.1
HCM Lane LOS	C	C	C	F
HCM 95th-tile Q	5.1	2	4.9	14.4

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	18	79	5	20	1	96	1	2	0	0	0
Future Vol, veh/h	1	18	79	5	20	1	96	1	2	0	0	0
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	18	79	5	20	1	96	1	2	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	21	0	0	98	0	0	92	92	59	92	131	21
Stage 1	-	-	-	-	-	-	61	61	-	31	31	-
Stage 2	-	-	-	-	-	-	31	31	-	61	100	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1595	-	-	1495	-	-	892	798	1007	892	760	1056
Stage 1	-	-	-	-	-	-	950	844	-	986	869	-
Stage 2	-	-	-	-	-	-	986	869	-	950	812	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1595	-	-	1494	-	-	888	794	1006	887	756	1056
Mov Cap-2 Maneuver	-	-	-	-	-	-	888	794	-	887	756	-
Stage 1	-	-	-	-	-	-	948	842	-	985	866	-
Stage 2	-	-	-	-	-	-	983	866	-	946	810	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.4	9.6	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	889	1595	-	-	1494	-	-	-
HCM Lane V/C Ratio	0.111	0.001	-	-	0.003	-	-	-
HCM Control Delay (s)	9.6	7.3	0	-	7.4	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	48	25	22	973	841	64
Future Vol, veh/h	48	25	22	973	841	64
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	25	22	973	841	64

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1861	844	908	0	-	0
Stage 1	844	-	-	-	-	-
Stage 2	1017	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	80	363	750	-	-	-
Stage 1	422	-	-	-	-	-
Stage 2	349	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	75	362	748	-	-	-
Mov Cap-2 Maneuver	257	-	-	-	-	-
Stage 1	394	-	-	-	-	-
Stage 2	348	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21.9	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	748	-	285	-	-
HCM Lane V/C Ratio	0.029	-	0.256	-	-
HCM Control Delay (s)	10	0	21.9	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	536	41	456	624	0	724
Future Volume (veh/h)	536	41	456	624	0	724
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	536	41	456	0	0	724
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	613	47	1265	0	0	1265
Arrive On Green	0.38	0.38	0.36	0.00	0.00	0.36
Sat Flow, veh/h	1631	125	3725	0	0	3725
Grp Volume(v), veh/h	578	0	456	0	0	724
Grp Sat Flow(s),veh/h/ln	1759	0	1770	0	0	1770
Q Serve(g_s), s	8.6	0.0	2.7	0.0	0.0	4.7
Cycle Q Clear(g_c), s	8.6	0.0	2.7	0.0	0.0	4.7
Prop In Lane	0.93	0.07		0.00	0.00	
Lane Grp Cap(c), veh/h	662	0	1265	0	0	1265
V/C Ratio(X)	0.87	0.00	0.36	0.00	0.00	0.57
Avail Cap(c_a), veh/h	1000	0	2074	0	0	2074
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	8.2	0.0	6.7	0.0	0.0	7.3
Incr Delay (d2), s/veh	3.9	0.0	0.2	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	1.3	0.0	0.0	2.3
LnGrp Delay(d),s/veh	12.1	0.0	6.9	0.0	0.0	7.8
LnGrp LOS	B		A			A
Approach Vol, veh/h	578		456			724
Approach Delay, s/veh	12.1		6.9			7.8
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		14.6		13.6		14.6		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		16.5		16.0		16.5		
Max Q Clear Time (g_c+I1), s		4.7		10.6		6.7		
Green Ext Time (p_c), s		2.7		0.1		3.4		

Intersection Summary	
HCM 2010 Ctrl Delay	9.0
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	435	386	20	578	118	223	216	17	79	371	88
Future Volume (veh/h)	65	435	386	20	578	118	223	216	17	79	371	88
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.91	1.00		0.97	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	65	435	386	20	578	118	223	216	17	79	371	88
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	126	734	931	49	951	192	249	241	413	89	416	418
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	231	2085	1432	45	2702	546	923	894	1532	324	1522	1532
Grp Volume(v), veh/h	160	340	386	384	0	332	439	0	17	450	0	88
Grp Sat Flow(s),veh/h/ln	706	1610	1432	1758	0	1534	1817	0	1532	1847	0	1532
Q Serve(g_s), s	9.6	19.7	15.9	0.1	0.0	20.3	26.5	0.0	0.9	26.6	0.0	5.0
Cycle Q Clear(g_c), s	30.0	19.7	15.9	19.9	0.0	20.3	26.5	0.0	0.9	26.6	0.0	5.0
Prop In Lane	0.41		1.00	0.05		0.36	0.51		1.00	0.18		1.00
Lane Grp Cap(c), veh/h	293	567	931	652	0	540	490	0	413	504	0	418
V/C Ratio(X)	0.55	0.60	0.41	0.59	0.00	0.61	0.90	0.00	0.04	0.89	0.00	0.21
Avail Cap(c_a), veh/h	293	567	931	652	0	540	623	0	526	633	0	526
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.8	30.3	11.2	30.1	0.0	30.5	40.0	0.0	30.7	39.7	0.0	31.9
Incr Delay (d2), s/veh	7.2	4.6	1.4	3.9	0.0	5.2	13.3	0.0	0.0	12.8	0.0	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	5.2	9.5	11.1	10.5	0.0	9.3	15.1	0.0	0.4	15.4	0.0	2.2
LnGrp Delay(d),s/veh	42.9	34.9	12.5	34.0	0.0	35.6	53.3	0.0	30.7	52.5	0.0	32.1
LnGrp LOS	D	C	B	C		D	D		C	D		C
Approach Vol, veh/h		886			716			456			538	
Approach Delay, s/veh		26.6			34.7			52.5			49.2	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		44.0		34.6		44.0		35.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		40.0		39.0		40.0		39.0
Max Q Clear Time (g_c+I1), s		32.0		28.5		22.3		28.6
Green Ext Time (p_c), s		3.1		2.2		4.5		2.4

Intersection Summary	
HCM 2010 Ctrl Delay	38.1
HCM 2010 LOS	D

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	324	288	502	394	427	399
Future Volume (veh/h)	324	288	502	394	427	399
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	324	288	502	394	427	399
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	350	1253	829	683	466	728
Arrive On Green	0.20	0.67	0.44	0.44	0.26	0.26
Sat Flow, veh/h	1774	1863	1863	1536	1774	1583
Grp Volume(v), veh/h	324	288	502	394	427	399
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1536	1774	1583
Q Serve(g_s), s	23.4	7.8	26.7	25.0	30.5	23.7
Cycle Q Clear(g_c), s	23.4	7.8	26.7	25.0	30.5	23.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	350	1253	829	683	466	728
V/C Ratio(X)	0.93	0.23	0.61	0.58	0.92	0.55
Avail Cap(c_a), veh/h	462	1253	829	683	595	844
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	51.4	8.3	27.5	27.0	46.7	25.4
Incr Delay (d2), s/veh	18.5	0.4	3.3	3.5	15.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.2	4.1	14.4	11.3	17.0	22.3
LnGrp Delay(d),s/veh	69.9	8.7	30.8	30.6	62.3	25.9
LnGrp LOS	E	A	C	C	E	C
Approach Vol, veh/h		612	896		826	
Approach Delay, s/veh		41.1	30.7		44.7	
Approach LOS		D	C		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		92.0		38.5	29.7	62.3		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 88		* 44	34.0	* 50		
Max Q Clear Time (g_c+I1), s		9.8		32.5	25.4	28.7		
Green Ext Time (p_c), s		1.2		1.8	0.3	2.9		

Intersection Summary	
HCM 2010 Ctrl Delay	38.4
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	50	10	86	19	147	2	682	108	194	843	54
Future Volume (veh/h)	79	50	10	86	19	147	2	682	108	194	843	54
Number	7	4	14	3	8	18	1	6	16	5	2	12
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		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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	79	50	10	86	19	147	2	682	108	194	843	54
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	121	70	12	218	44	1000	26	806	127	806	2546	163
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.27	0.27	0.27	0.45	0.75	0.75
Sat Flow, veh/h	447	385	65	948	242	1553	2	2985	471	1774	3378	216
Grp Volume(v), veh/h	139	0	0	105	0	147	426	0	366	194	442	455
Grp Sat Flow(s),veh/h/ln	897	0	0	1190	0	1553	1860	0	1598	1774	1770	1824
Q Serve(g_s), s	11.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.4	9.4	11.5	11.5
Cycle Q Clear(g_c), s	22.8	0.0	0.0	11.2	0.0	0.0	30.3	0.0	30.4	9.4	11.5	11.5
Prop In Lane	0.57		0.07	0.82		1.00	0.00		0.29	1.00		0.12
Lane Grp Cap(c), veh/h	202	0	0	262	0	1000	528	0	432	806	1334	1375
V/C Ratio(X)	0.69	0.00	0.00	0.40	0.00	0.15	0.81	0.00	0.85	0.24	0.33	0.33
Avail Cap(c_a), veh/h	284	0	0	343	0	1090	846	0	707	806	1334	1375
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	0.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	59.5	0.0	0.0	51.5	0.0	10.3	48.3	0.0	48.4	23.4	5.7	5.7
Incr Delay (d2), s/veh	3.1	0.0	0.0	0.7	0.0	0.0	12.4	0.0	18.5	0.0	0.5	0.5
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	5.5	0.0	0.0	3.7	0.0	2.3	17.4	0.0	15.6	4.6	5.7	5.9
LnGrp Delay(d),s/veh	62.6	0.0	0.0	52.2	0.0	10.3	60.8	0.0	66.9	23.4	6.2	6.1
LnGrp LOS	E			D		B	E		E	C	A	A
Approach Vol, veh/h		139			252			792			1091	
Approach Delay, s/veh		62.6			27.8			63.6			9.2	
Approach LOS		E			C			E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		110.1		29.9	68.2	41.9		29.9
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		97.4		33.4	31.9	* 62		33.4
Max Q Clear Time (g_c+I1), s		13.5		24.8	11.4	32.4		13.2
Green Ext Time (p_c), s		7.2		0.4	0.2	5.4		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	33.5
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	697	956	1444	339	316	680
Future Volume (veh/h)	697	956	1444	339	316	680
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	697	956	1444	339	316	680
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	782	3384	1554	363	388	1243
Arrive On Green	0.23	0.67	0.38	0.38	0.22	0.22
Sat Flow, veh/h	3442	5253	4254	955	1774	2787
Grp Volume(v), veh/h	697	956	1197	586	316	680
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1651	1774	1393
Q Serve(g_s), s	13.6	5.4	23.4	23.6	11.7	12.4
Cycle Q Clear(g_c), s	13.6	5.4	23.4	23.6	11.7	12.4
Prop In Lane	1.00			0.58	1.00	1.00
Lane Grp Cap(c), veh/h	782	3384	1289	628	388	1243
V/C Ratio(X)	0.89	0.28	0.93	0.93	0.81	0.55
Avail Cap(c_a), veh/h	797	3384	1289	628	411	1278
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	25.9	4.8	20.5	20.6	25.7	14.0
Incr Delay (d2), s/veh	12.1	0.2	12.9	22.9	11.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	2.5	13.1	14.6	6.9	4.8
LnGrp Delay(d),s/veh	38.0	5.0	33.5	43.4	37.1	14.5
LnGrp LOS	D	A	C	D	D	B
Approach Vol, veh/h		1653	1783		996	
Approach Delay, s/veh		18.9	36.7		21.6	
Approach LOS		B	D		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	19.7	30.3				50.0		19.1
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	26.0				46.0		16.0
Max Q Clear Time (g_c+I1), s	15.6	25.6				7.4		14.4
Green Ext Time (p_c), s	0.2	0.4				7.9		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	475	15	130	138	58	102	185	723	84	30	700	377
Future Volume (veh/h)	475	15	130	138	58	102	185	723	84	30	700	377
Number	3	8	18	7	4	14	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		0.97	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	486	0	130	138	58	102	185	723	84	30	700	377
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	609	0	270	231	78	138	124	1797	989	40	1630	982
Arrive On Green	0.17	0.00	0.17	0.13	0.13	0.13	0.07	0.51	0.51	0.02	0.46	0.46
Sat Flow, veh/h	3548	0	1572	1774	603	1061	1774	3539	1543	1774	3539	1542
Grp Volume(v), veh/h	486	0	130	138	0	160	185	723	84	30	700	377
Grp Sat Flow(s),veh/h/ln	1774	0	1572	1774	0	1664	1774	1770	1543	1774	1770	1542
Q Serve(g_s), s	13.1	0.0	7.5	7.3	0.0	9.3	7.0	12.6	2.1	1.7	13.3	11.9
Cycle Q Clear(g_c), s	13.1	0.0	7.5	7.3	0.0	9.3	7.0	12.6	2.1	1.7	13.3	11.9
Prop In Lane	1.00		1.00	1.00		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	609	0	270	231	0	216	124	1797	989	40	1630	982
V/C Ratio(X)	0.80	0.00	0.48	0.60	0.00	0.74	1.49	0.40	0.08	0.75	0.43	0.38
Avail Cap(c_a), veh/h	958	0	425	479	0	449	124	1797	989	71	1630	982
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	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	0.0	37.4	41.0	0.0	41.9	46.5	15.2	6.9	48.6	18.1	9.0
Incr Delay (d2), s/veh	2.0	0.0	1.0	1.8	0.0	3.7	255.9	0.6	0.2	9.8	0.8	1.1
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	6.6	0.0	3.3	3.7	0.0	4.5	12.2	6.3	1.3	0.9	6.7	7.7
LnGrp Delay(d),s/veh	41.7	0.0	38.4	42.9	0.0	45.5	302.4	15.8	7.1	58.4	19.0	10.1
LnGrp LOS	D		D	D		D	F	B	A	E	B	B
Approach Vol, veh/h		616			298			992			1107	
Approach Delay, s/veh		41.0			44.3			68.6			17.0	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.3	55.4		17.2	11.0	50.6		21.2
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.0	4.6		4.0
Max Green Setting (Gmax), s	4.0	25.2		* 27	7.0	22.2		27.0
Max Q Clear Time (g_c+I1), s	3.7	14.6		11.3	9.0	15.3		15.1
Green Ext Time (p_c), s	0.0	5.9		0.9	0.0	4.9		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	41.6
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	358	127	193	309	23	75	161	242	42	144	26
Future Volume (veh/h)	43	358	127	193	309	23	75	161	242	42	144	26
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		0.97	1.00		0.97	0.99		0.96	0.99		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	1863	1863	1863	1900	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	43	358	127	193	309	23	75	161	242	42	144	26
Adj No. of Lanes	1	1	1	1	1	0	0	1	1	0	1	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	535	439	253	669	50	222	336	388	158	311	50
Arrive On Green	0.04	0.29	0.29	0.14	0.39	0.39	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1774	1863	1528	1774	1708	127	381	1317	1522	175	1221	195
Grp Volume(v), veh/h	43	358	127	193	0	332	236	0	242	212	0	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1528	1774	0	1835	1698	0	1522	1591	0	0
Q Serve(g_s), s	0.9	6.5	2.5	4.0	0.0	5.1	0.0	0.0	5.4	0.1	0.0	0.0
Cycle Q Clear(g_c), s	0.9	6.5	2.5	4.0	0.0	5.1	4.2	0.0	5.4	4.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.07	0.32		1.00	0.20		0.12
Lane Grp Cap(c), veh/h	68	535	439	253	0	719	558	0	388	519	0	0
V/C Ratio(X)	0.63	0.67	0.29	0.76	0.00	0.46	0.42	0.00	0.62	0.41	0.00	0.00
Avail Cap(c_a), veh/h	233	929	762	559	0	1253	860	0	679	813	0	0
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.1	12.0	10.6	15.7	0.0	8.6	12.1	0.0	12.6	12.0	0.0	0.0
Incr Delay (d2), s/veh	9.3	1.5	0.4	4.7	0.0	0.5	0.5	0.0	1.6	0.5	0.0	0.0
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	0.6	3.5	1.1	2.3	0.0	2.7	2.2	0.0	2.4	2.0	0.0	0.0
LnGrp Delay(d),s/veh	27.3	13.4	10.9	20.4	0.0	9.1	12.6	0.0	14.2	12.5	0.0	0.0
LnGrp LOS	C	B	B	C		A	B		B	B		
Approach Vol, veh/h		528			525			478			212	
Approach Delay, s/veh		14.0			13.2			13.4			12.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.7	9.4	14.9		13.7	5.5	18.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		17.0	12.0	19.0		17.0	5.0	26.0
Max Q Clear Time (g_c+I1), s		7.4	6.0	8.5		6.2	2.9	7.1
Green Ext Time (p_c), s		1.7	0.3	2.0		0.9	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	13.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	478	56	165	459	234	102	1619	135	158	1831	45
Future Volume (veh/h)	0	478	56	165	459	234	102	1619	135	158	1831	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	10	40	55	12	175	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	0	478	0	165	459	234	102	1619	135	158	1831	0
Adj No. of Lanes	1	2	0	1	1	1	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1	544	0	206	541	450	135	2571	105	251	2033	909
Arrive On Green	0.00	0.15	0.00	0.10	0.28	0.28	0.07	0.52	0.52	0.14	0.59	0.00
Sat Flow, veh/h	1774	3632	0	1774	1863	1548	1774	4779	398	1774	3539	1583
Grp Volume(v), veh/h	0	478	0	165	459	234	102	1148	606	158	1831	0
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1774	1863	1548	1774	1695	1787	1774	1770	1583
Q Serve(g_s), s	0.0	25.2	0.0	17.6	45.1	18.5	10.9	46.7	46.8	16.2	83.7	0.0
Cycle Q Clear(g_c), s	0.0	25.2	0.0	17.6	45.1	18.5	10.9	46.7	46.8	16.2	83.7	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	1	544	0	206	541	450	135	1728	933	251	2033	909
V/C Ratio(X)	0.00	0.88	0.00	0.80	0.85	0.52	0.76	0.66	0.65	0.63	0.90	0.00
Avail Cap(c_a), veh/h	37	704	0	213	556	462	139	1774	935	260	2093	936
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)	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	81.5	0.0	87.0	70.0	38.6	91.1	45.8	44.2	79.6	37.0	0.0
Incr Delay (d2), s/veh	0.0	10.1	0.0	18.8	11.6	1.0	20.3	2.0	3.5	4.6	7.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	85.8	198.0	224.2	210.6	97.7	80.4	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.5	0.0	17.1	61.0	46.4	16.0	66.2	64.6	8.4	45.7	0.0
LnGrp Delay(d),s/veh	0.0	91.6	0.0	191.7	279.6	263.8	322.0	145.5	128.1	84.2	43.9	0.0
LnGrp LOS		F		F	F	F	F	F	F	F	D	
Approach Vol, veh/h		478			858			1856			1989	
Approach Delay, s/veh		91.6			258.4			149.5			47.1	
Approach LOS		F			F			F			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	29.9	104.0	23.7	33.6	16.9	117.0	0.0	57.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	28.0	100.0	23.0	38.0	15.0	113.0	4.0	57.0
Max Q Clear Time (g_c+I1), s	18.2	48.8	19.6	27.2	12.9	85.7	0.0	47.1
Green Ext Time (p_c), s	0.3	20.8	0.1	2.3	0.0	17.9	0.0	2.7

Intersection Summary		
HCM 2010 Ctrl Delay		122.9
HCM 2010 LOS		F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	232	520	132	766	541	296	167	1421	797	322	2187	76
Future Volume (veh/h)	232	520	132	766	541	296	167	1421	797	322	2187	76
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		0.96	1.00		0.97	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	232	520	132	766	541	296	167	1421	797	322	2187	76
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	171	421	106	570	411	513	135	1635	985	380	1757	939
Arrive On Green	0.10	0.15	0.15	0.17	0.22	0.22	0.08	0.46	0.46	0.11	0.50	0.50
Sat Flow, veh/h	1774	2775	700	3442	1863	1532	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	232	330	322	766	541	296	167	1421	797	322	2187	76
Grp Sat Flow(s),veh/h/ln	1774	1770	1706	1721	1863	1532	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	14.0	22.0	22.0	24.0	32.0	4.7	11.0	52.3	27.0	13.3	72.0	3.0
Cycle Q Clear(g_c), s	14.0	22.0	22.0	24.0	32.0	4.7	11.0	52.3	27.0	13.3	72.0	3.0
Prop In Lane	1.00		0.41	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	171	268	259	570	411	513	135	1635	985	380	1757	939
V/C Ratio(X)	1.35	1.23	1.24	1.34	1.32	0.58	1.24	0.87	0.81	0.85	1.24	0.08
Avail Cap(c_a), veh/h	171	268	259	570	411	513	135	1635	985	380	1757	939
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	65.5	61.5	61.5	60.5	56.5	23.0	67.0	35.1	7.5	63.3	36.5	12.6
Incr Delay (d2), s/veh	192.7	132.0	137.3	166.6	158.6	1.6	156.2	6.6	7.2	16.3	115.0	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	16.0	20.6	20.2	24.6	34.6	9.4	11.2	27.0	13.3	7.2	63.2	1.3
LnGrp Delay(d),s/veh	258.2	193.5	198.8	227.1	215.1	24.6	223.2	41.6	14.7	79.6	151.5	12.8
LnGrp LOS	F	F	F	F	F	C	F	D	B	E	F	B
Approach Vol, veh/h		884			1603			2385			2585	
Approach Delay, s/veh		212.4			185.6			45.3			138.5	
Approach LOS		F			F			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	20.0	71.0	28.0	26.0	15.0	76.0	18.0	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	67.0	24.0	22.0	11.0	72.0	14.0	32.0
Max Q Clear Time (g_c+I1), s	15.3	54.3	26.0	24.0	13.0	74.0	16.0	34.0
Green Ext Time (p_c), s	0.1	10.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	127.6
HCM 2010 LOS	F

Notes

User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	546	258	2269	0	0	869
Future Volume (veh/h)	546	258	2269	0	0	869
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	546	258	2269	0	0	869
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	709	574	2443	0	0	2443
Arrive On Green	0.21	0.21	0.69	0.00	0.00	0.69
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	546	258	2269	0	0	869
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	12.0	6.5	44.3	0.0	0.0	8.1
Cycle Q Clear(g_c), s	12.0	6.5	44.3	0.0	0.0	8.1
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	709	574	2443	0	0	2443
V/C Ratio(X)	0.77	0.45	0.93	0.00	0.00	0.36
Avail Cap(c_a), veh/h	1076	871	2443	0	0	2443
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.45	0.00	0.00	1.00
Uniform Delay (d), s/veh	30.0	27.8	10.7	0.0	0.0	5.1
Incr Delay (d2), s/veh	1.9	0.6	3.9	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	2.5	22.4	0.0	0.0	4.0
LnGrp Delay(d),s/veh	31.9	28.3	14.6	0.0	0.0	5.5
LnGrp LOS	C	C	B			A
Approach Vol, veh/h	804		2269			869
Approach Delay, s/veh	30.7		14.6			5.5
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		59.3				59.3		20.7
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		46.7				46.7		25.0
Max Q Clear Time (g_c+I1), s		46.3				10.1		14.0
Green Ext Time (p_c), s		0.4				7.4		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	15.9
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1567	401	0	984	947	0
Future Volume (veh/h)	1567	401	0	984	947	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1567	401	0	984	947	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1688	776	0	1441	1441	0
Arrive On Green	0.49	0.49	0.00	0.41	0.81	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1567	401	0	984	947	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	34.1	13.8	0.0	18.3	8.6	0.0
Cycle Q Clear(g_c), s	34.1	13.8	0.0	18.3	8.6	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1688	776	0	1441	1441	0
V/C Ratio(X)	0.93	0.52	0.00	0.68	0.66	0.00
Avail Cap(c_a), veh/h	1846	849	0	1441	1441	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.86	0.00
Uniform Delay (d), s/veh	19.1	13.9	0.0	19.5	5.2	0.0
Incr Delay (d2), s/veh	8.0	0.2	0.0	2.6	2.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.0	6.1	0.0	9.4	4.1	0.0
LnGrp Delay(d),s/veh	27.1	14.1	0.0	22.1	7.2	0.0
LnGrp LOS	C	B		C	A	
Approach Vol, veh/h	1968			984	947	
Approach Delay, s/veh	24.4			22.1	7.2	
Approach LOS	C			C	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		36.7		43.3		36.7		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		28.9		42.9		28.9		
Max Q Clear Time (g_c+I1), s		20.3		36.1		10.6		
Green Ext Time (p_c), s		3.3		3.1		4.5		

Intersection Summary	
HCM 2010 Ctrl Delay	19.7
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	14.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	65	455	70	55	314	25	47	68	67	44	80	31
Future Vol, veh/h	65	455	70	55	314	25	47	68	67	44	80	31
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	65	455	70	55	314	25	47	68	67	44	80	31
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	15.6	13.3	12.9	12.6
HCM LOS	C	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	26%	22%	0%	26%	0%	28%
Vol Thru, %	37%	78%	76%	74%	86%	52%
Vol Right, %	37%	0%	24%	0%	14%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	182	293	298	212	182	155
LT Vol	47	65	0	55	0	44
Through Vol	68	228	228	157	157	80
RT Vol	67	0	70	0	25	31
Lane Flow Rate	182	292	298	212	182	155
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.335	0.52	0.506	0.399	0.331	0.293
Departure Headway (Hd)	6.626	6.518	6.237	6.779	6.549	6.804
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	544	556	583	534	551	530
Service Time	4.638	4.218	3.937	4.49	4.26	4.826
HCM Lane V/C Ratio	0.335	0.525	0.511	0.397	0.33	0.292
HCM Control Delay	12.9	16.1	15.2	13.9	12.5	12.6
HCM Lane LOS	B	C	C	B	B	B
HCM 95th-tile Q	1.5	3	2.8	1.9	1.4	1.2

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	110	863	18	20	679	55	5	2	17	35	0	90
Future Vol, veh/h	110	863	18	20	679	55	5	2	17	35	0	90
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	110	863	18	20	679	55	5	2	17	35	0	90

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	765	0	0	897	0	0	1488	1913	482	1456	1895	398
Stage 1	-	-	-	-	-	-	1108	1108	-	778	778	-
Stage 2	-	-	-	-	-	-	380	805	-	678	1117	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	844	-	-	753	-	-	86	67	530	91	69	601
Stage 1	-	-	-	-	-	-	224	284	-	355	405	-
Stage 2	-	-	-	-	-	-	614	393	-	408	281	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	822	-	-	743	-	-	55	45	512	63	47	585
Mov Cap-2 Maneuver	-	-	-	-	-	-	55	45	-	63	47	-
Stage 1	-	-	-	-	-	-	163	206	-	255	376	-
Stage 2	-	-	-	-	-	-	496	365	-	282	204	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.1	0.4	35.4	64.1
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	142	822	-	-	743	-	-	176
HCM Lane V/C Ratio	0.169	0.134	-	-	0.027	-	-	0.71
HCM Control Delay (s)	35.4	10.1	1.1	-	10	0.2	-	64.1
HCM Lane LOS	E	B	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.6	0.5	-	-	0.1	-	-	4.4

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	86	13	9	105	2	16	2	16	5	0	1
Future Vol, veh/h	1	86	13	9	105	2	16	2	16	5	0	1
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	86	13	9	105	2	16	2	16	5	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	111	0	0	100	0	0	222	225	95	233	230	111
Stage 1	-	-	-	-	-	-	96	96	-	128	128	-
Stage 2	-	-	-	-	-	-	126	129	-	105	102	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1479	-	-	1493	-	-	734	674	962	722	670	942
Stage 1	-	-	-	-	-	-	911	815	-	876	790	-
Stage 2	-	-	-	-	-	-	878	789	-	901	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1474	-	-	1492	-	-	728	667	960	702	663	938
Mov Cap-2 Maneuver	-	-	-	-	-	-	728	667	-	702	663	-
Stage 1	-	-	-	-	-	-	909	813	-	872	783	-
Stage 2	-	-	-	-	-	-	871	782	-	882	809	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.6	9.6	10
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	816	1474	-	-	1492	-	-	733
HCM Lane V/C Ratio	0.042	0.001	-	-	0.006	-	-	0.008
HCM Control Delay (s)	9.6	7.4	0	-	7.4	0	-	10
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	47	7	11	67	11	19	16	21	6	37	8
Future Vol, veh/h	8	47	7	11	67	11	19	16	21	6	37	8
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	47	7	11	67	11	19	16	21	6	37	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	80	0	0	56	0	0	187	171	54	183	169	76
Stage 1	-	-	-	-	-	-	69	69	-	97	97	-
Stage 2	-	-	-	-	-	-	118	102	-	86	72	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1518	-	-	1549	-	-	774	722	1013	778	724	985
Stage 1	-	-	-	-	-	-	941	837	-	910	815	-
Stage 2	-	-	-	-	-	-	887	811	-	922	835	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1515	-	-	1546	-	-	729	710	1010	740	712	983
Mov Cap-2 Maneuver	-	-	-	-	-	-	729	710	-	740	712	-
Stage 1	-	-	-	-	-	-	934	831	-	904	808	-
Stage 2	-	-	-	-	-	-	833	804	-	880	829	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.9	9.8	10.2
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	807	1515	-	-	1546	-	-	748
HCM Lane V/C Ratio	0.069	0.005	-	-	0.007	-	-	0.068
HCM Control Delay (s)	9.8	7.4	0	-	7.3	0	-	10.2
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	54	2	15	64	2	8	13	15	1	4	6
Future Vol, veh/h	1	54	2	15	64	2	8	13	15	1	4	6
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	54	2	15	64	2	8	13	15	1	4	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	67	0	0	56	0	0	158	154	57	169	154	67
Stage 1	-	-	-	-	-	-	57	57	-	96	96	-
Stage 2	-	-	-	-	-	-	101	97	-	73	58	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1535	-	-	1549	-	-	808	738	1009	795	738	997
Stage 1	-	-	-	-	-	-	955	847	-	911	815	-
Stage 2	-	-	-	-	-	-	905	815	-	937	847	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1534	-	-	1549	-	-	793	729	1007	764	729	995
Mov Cap-2 Maneuver	-	-	-	-	-	-	793	729	-	764	729	-
Stage 1	-	-	-	-	-	-	954	846	-	909	806	-
Stage 2	-	-	-	-	-	-	885	806	-	906	846	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.4	9.5	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	841	1534	-	-	1549	-	-	858
HCM Lane V/C Ratio	0.043	0.001	-	-	0.01	-	-	0.013
HCM Control Delay (s)	9.5	7.3	0	-	7.3	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	66	0	21	49	3	54
Future Vol, veh/h	66	0	21	49	3	54
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	0	21	49	3	54

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	69	0	161	69
Stage 1	-	-	-	-	69	-
Stage 2	-	-	-	-	92	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1532	-	848	994
Stage 1	-	-	-	-	954	-
Stage 2	-	-	-	-	944	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1528	-	834	992
Mov Cap-2 Maneuver	-	-	-	-	834	-
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	930	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	982	-	-	1528	-
HCM Lane V/C Ratio	0.058	-	-	0.014	-
HCM Control Delay (s)	8.9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	42	58	8	5	76	5	2	4	3	2	3	41
Future Vol, veh/h	42	58	8	5	76	5	2	4	3	2	3	41
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	42	58	8	5	76	5	2	4	3	2	3	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	83	0	0	67	0	0	259	240	63	241	242	82
Stage 1	-	-	-	-	-	-	147	147	-	91	91	-
Stage 2	-	-	-	-	-	-	112	93	-	150	151	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1514	-	-	1535	-	-	694	661	1002	713	660	978
Stage 1	-	-	-	-	-	-	856	775	-	916	820	-
Stage 2	-	-	-	-	-	-	893	818	-	853	772	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1511	-	-	1534	-	-	645	638	1001	689	637	976
Mov Cap-2 Maneuver	-	-	-	-	-	-	645	638	-	689	637	-
Stage 1	-	-	-	-	-	-	830	752	-	888	816	-
Stage 2	-	-	-	-	-	-	849	814	-	821	749	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.9	0.4	10	9.1
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	728	1511	-	-	1534	-	-	927
HCM Lane V/C Ratio	0.012	0.028	-	-	0.003	-	-	0.05
HCM Control Delay (s)	10	7.5	0	-	7.4	0	-	9.1
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.2

County of San Mateo - Planning and Building Department

ATTACHMENT F

COUNTY OF SAN MATEO
PLANNING AND BUILDING

455 County Center, 2nd Floor
Redwood City, CA 94063
650-599-7310 T
www.planning.smcgov.org

PROJECT FILE

August 21, 2017

Synapse School
Jim Eagan
3375 Edison Way
Menlo Park, CA 94025

Dear Mr. Eagan:

Subject:	**LETTER OF DECISION**
File No.:	PLN2014-00295
Location:	3375, 3355, 3345, 3425 Edison Way, North Fair Oaks
Assessor's Parcel Nos.:	060-042-260 and 060-042-240

On August 9, 2017 the San Mateo County Planning Commission considered a Non-Conforming Use Permit, pursuant to Section 6137 of the San Mateo County Zoning Regulations, and adoption of a Mitigated Negative Declaration, pursuant to the California Environmental Quality Act (CEQA), to expand the existing Synapse School facility, located at 3375 Edison Way, into the existing neighboring buildings at 3355, 3345, and 3425 Edison Way in the unincorporated area of North Fair Oaks. The Non-Conforming Use Permit includes the request for an off-street parking exception to reduce the number of required on-site parking spaces from 144 spaces to 128 spaces.

Based on information provided by staff and evidence presented at the hearing, the Planning Commission adopted the Mitigated Negative Declaration and approved the Non-Conforming Use Permit, County File Number PLN 2014-00295, by making the required findings and adopting the conditions of approval in Attachment A.

Any interested party aggrieved by the determination of the Planning Commission has the right of appeal to the Board of Supervisors within ten (10) business days from such date of determination. The appeal period for this matter will end at **5:00 p.m.** on **August 23, 2017.**

Please direct any questions regarding this matter to Project Planner Summer Burlison at 650-363-1815 or sburlison@smcgov.org.

Sincerely,

Janneth Lujan
Planning Commission Secretary

cc: Department of Public Works
Environmental Health Department
Building Inspection Department
Planning Director, City of Redwood City
Menlo Park Fire Department
Fair Oaks Sewer Maintenance District
Anthony Zanette
North Fair Oaks Community Council

Attachment A

County of San Mateo
Planning and Building Department

FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2014-00295 Hearing Date: August 9, 2017

Prepared By: Summer Burlison
Project Planner

Adopted By: Planning Commission

FINDINGS

Regarding the Environmental Review, Found:

1. That the Initial Study and Mitigated Negative Declaration are complete, correct and adequate and prepared in accordance with the California Environmental Quality Act (CEQA) and applicable State and County Guidelines. An Initial Study and a Mitigated Negative Declaration were prepared and issued with a public review period from March 30, 2017 to April 18, 2017.

2. That, on the basis of the Initial Study, comments received hereto, and testimony presented and considered at the public hearing, there is no substantial evidence that the project will have a significant effect on the environment. The Initial Study and Mitigated Negative Declaration identify potential significant impacts to air quality, hazards and hazardous materials, land use and planning, transportation and traffic, and utilities and service systems. The mitigation measures contained in the Mitigated Negative Declaration have been included as conditions of approval in this attachment. As proposed and mitigated, the project would will not result in any significant environmental impacts.

3. That the mitigation measures identified in the Mitigated Negative Declaration, agreed to by the applicant, placed as conditions on the project, and identified as part of this public hearing, have been incorporated as conditions of project approval.

4. That the Initial Study and Mitigated Negative Declaration reflect the independent judgment of the County.

5. That Mitigation Measure 4 (morning peak hour trip cap), as recommended in the Mitigated Negative Declaration, is equivalently effective at mitigating traffic-related impacts at Middlefield Road/5th Avenue and Middlefield Road/2nd Avenue as Mitigation Measure 8 (staggered school schedule), because the morning peak hour trip cap (Mitigation Measure 4) will achieve the same trip reduction as the staggered school

schedule (Mitigation Measure 8) for these two intersections; and because Mitigation Measure 4 will not cause any potentially significant effect on the environment. Therefore, pursuant to Section 15074.1 of the California Environmental Quality Act (CEQA) Guidelines, Mitigation Measure 8 is eliminated and substituted for by Mitigation Measure 4.

Regarding the Non-Conforming Use Permit, Found:

6. That the establishment, maintenance, and/or conducting of the use will not, under the circumstances of the particular case, result in a significant adverse impact to coastal resources, or be detrimental to the public welfare or injurious to property or improvements in said neighborhood as the school is not proposing any significant operational changes to their current daily operation as a K-8 educational facility, mitigation measures are included as conditions of approval to reduce any traffic-related impacts to a less than significant level for the area, and a majority of the school activities will continue to be conducted indoors so as to not result in excessive noise levels.

   Additionally, given existing parking constraints in the area, surrounding residential parcels, and the existing built-out site conditions, there is no available space within the project site or within 1,000 feet of the project site to accommodate an additional 16 parking spaces for the school's use. However, the school is not expected to generate much parking demand beyond staff and occasional visitors (including parents) as the school will remain kindergarten to 8th grade (K-8), thus not generating any student demand for parking spaces and is sufficient to serve the school's total staff of 58 at full student capacity (260 students). Therefore, the existing off-street parking facilities, as proposed, are as nearly in compliance with the requirements as are reasonable possible and the conducting of the school with 128 off-street parking spaces will not be detrimental to the public welfare or injurious to property or improvements in the neighborhood.

CONDITIONS OF APPROVAL

Current Planning Section

1. The approval applies only to the proposal as described in this report and materials submitted for review and approval by the Planning Commission on August 9, 2017. The Community Development Director may approve minor revisions or modifications to the project if they are found to be consistent with the intent of, and in substantial conformance with, this approval.

2. Within one (1) year from the date of final approval of the Non-Conforming Use Permit, a valid building permit shall be issued and a completed inspection (to the satisfaction of the Building Inspection Section) shall have occurred within 180 days of its issuance, or the Non-Conforming Use Permit approval becomes null and void. Any extension of time shall require the submittal of a written request for permit extension and payment of applicable extension fees sixty (60) days prior to this one (1) year expiration date.

3. The Non-Conforming Use Permit shall be valid for five (5) years from the date of final approval, and shall expire on August 9, 2022. The applicant shall apply for renewal of the Use Permit, and pay applicable renewal fees six (6) months prior to expiration, if continuation of the use is desired. Any change in use shall be required to comply with applicable zoning regulations for this district.

4. Any change in use or intensity not already approved shall require an amendment to the use permit. Amendment to this use permit requires an application for amendment, payment of applicable fees, and consideration at a public hearing.

5. Within four (4) business days of the final approval date for this project, the applicant shall submit an environmental filing fee of $2,216.25, as required under Fish and Game Code Section 711.4, plus a $50.00 recording fee. Thus, the applicant shall submit a check in the total amount of $2,266.25, made payable to "San Mateo County Clerk," to the project planner to file with the Notice of Determination. Please be aware that the Department of Fish and Game environmental filing fee increases starting the 1st day of each new calendar year (i.e., January 1, 2017). The fee amount due is based on the date of payment of the fees.

6. The applicant shall obtain a building permit prior to the start of any tenant improvement work on-site.

7. The project shall comply with all development standards and performance standards of the applicable M-1/Edison/NFO Zoning District.

8. An Underground Service Alert (USA) of the area to mark where the Alameda Pipeline is located is required prior to issuance of a building permit. If the proposed project involves any utility crossing the Alameda Pipeline on Edison Way, then the applicant shall be required to complete the San Francisco Public Utilities Commission's (SFPUC) project review process to address any utility crossing issues early in the design phase and to avoid any unnecessary delays. Information about SFPUC's project review committee can be found at the following link: http://www.sfwater.org/index.aspx?page=450.

9. Noise sources associated with demolition, construction, repair, remodeling, or grading of any real property shall be limited to the hours from 7:00 a.m. to 6:00 p.m. weekdays and 9:00 a.m. to 5:00 p.m. Saturdays. Said activities are prohibited on Sundays, Thanksgiving, and Christmas (San Mateo Ordinance Code Section 4.88.360). Noise levels associated with the approved use shall not exceed the limitations set forth in the County Noise Ordinance and/or Performance Standards of the M-1/Edison/NFO Zoning District.

10. As part of the building permit submittal, the applicant shall clearly identify any proposed noise reducing measures, including but not limited to, living wall areas, artificial turf areas, location of sound blankets, and new tree plantings.

Mitigation Measures from the Mitigated Negative Declaration (changes made to the mitigation measures as presented in the Mitigated Negative Declaration are shown in strike-through and underline format):

11. **Mitigation Measure 1:** Pursuant to the Bay Area Air Quality Management District's CEQA Guidelines (May 2011), the following Air Quality Best Management Practices shall be implemented throughout the duration of construction-related activities on the project site:

    a. Idling times shall be minimized either by shutting equipment or vehicles off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485, of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

    b. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications.

    c. Minimize the idling time of diesel powered construction equipment to two minutes.

12. **Mitigation Measure 2:** All staff members who drive to the school shall be required to park in the school's on-site parking lot.

13. **Mitigation Measure 3:** All 128 on-site parking spaces shall be appropriately striped. Striping marks shall be maintained in a clear and visible manner so that they are easily recognizable to drivers.

14. **Mitigation Measure 4:** Normal operation of the school shall not exceed 275 morning peak hour trips. The morning peak hour is defined as the highest one-hour period between 7:00 a.m. - 9:00 a.m. during which the maximum traffic generated by the school occurs.

    The applicant shall retain a third-party traffic consultant to count the trip generation of the school, which would include counting the school driveways plus counting any school-related traffic that is dropping off students along Edison Way or any of its cross-streets. The third-party consultant will conduct the counts over three (3) weekdays (a Tuesday, Wednesday, and/or Thursday) in October and March of each school year, excluding scheduled school holidays. The trip count shall be the average of the three weekday counts. Concurrent with the trip counts, the third-party traffic consultant shall conduct a queuing analysis for on-street queuing due to driveway back-up at the designated on-site pick-up/
    drop-off points for the school. The data from the traffic counts shall be submitted to the

County of San Mateo Traffic Services and the Current Planning Section of the County of San Mateo Planning and Building Department in a report for review and acceptance. The County may also choose to conduct its own monitoring if desired.

If the monitoring shows that the trip cap is exceeded, then the applicant shall have 30 days to prepare and submit a Transportation Demand Management (TDM) Program that incorporates measures to reduce the number of trips below the trip cap, and shall have an additional 30 days to implement the TDM Program in order to bring the site into compliance with the trip cap. Measures included in the TDM Program may include, but shall not be limited to, staggering start times, adding shuttle buses, initiating a carpooling program, and offering staff incentives to take alternative transportation. A subsequent monitoring will be conducted by the County 30 days following implementation of the TDM Program. If the subsequent monitoring indicates that the site still exceeds the trip cap, then the applicant may need to resort to reducing student enrollment accordingly to bring the site into compliance with the trip cap. Non-compliance evidenced by the subsequent monitoring may also result in review of the use permit by the Planning Commission.

15. **Mitigation Measure 5:** The applicant shall provide, upon request by the County, shuttle bus logs for all shuttle buses serving the school. The shuttle logs shall show the number of students dropped off and picked up at the school site each day.

16. **Mitigation Measure 6:** The maximum student enrollment shall not exceed 260 students. The applicant shall submit an annual report stating the total number of students and staff attending or working at the school prior to the beginning of each school year. Any increase in student enrollment beyond 260 students shall require an amendment to the Non-Conforming Use Permit and shall require an updated Traffic Impact Analysis.

17. **Mitigation Measure 7:** The applicant shall apply for an encroachment permit to install a left-turn refuge lane on Marsh Road, within the current roadway width, to improve the intersection operation. Plans shall be submitted to the Department of Public Works Traffic Services for review and approval.

~~18. **Mitigation Measure 8:** The school shall stagger the start and end times by one hour with 85 students starting one hour earlier during the 7:00 a.m. - 8:00 a.m. hour and ending during the 2:00 p.m. - 3:00 p.m. hour to reduce AM peak hour trips.~~

18. **Mitigation Measure 9:** The school shall provide designated staff or parents to assist in the on-site management of drop-off and pick-up operations.

Menlo Park Fire Protection District

19. The project must comply with all applicable California Building and Fire Codes, and any applicable local amendments.

20. A final fire inspection is required prior to the final building inspection for any associated building permits. Contact Menlo Park Fire Protection District at 650/688-8400 to schedule a final fire inspection. A 48-HOUR NOTICE IS REQUIRED FOR ALL INSPECTIONS.

Fair Oaks Sewer Maintenance District

21. The applicant shall submit building plans to the Fair Oaks Sewer Maintenance District (District) for review when the building permit application is submitted. The plans shall indicate the location of the existing and proposed sewer laterals to the Sewer District main.

22. The District will allow the proposed connection provided all associated fees are paid. The Fair Oaks Sewer Maintenance District may require payment of additional sewer connection fees and sewage treatment capacity fees.

23. The existing Fair Oaks Sewer Maintenance District mains downstream of the proposed lateral connection shall be evaluated to determine if there is sufficient capacity to accommodate the additional sewage demand of the proposed development. The evaluation and design of any resulting upgrades to the District's facilities must be completed and approved by the District prior to final approval of the building plans.

SB:pac - SSBBB0213_WPU.DOCX

County of San Mateo - Planning and Building Department

ATTACHMENT G

ROBERT J. LANZONE
JEAN B. SAVAREE
GREGORY J. RUBENS
CAMAS J. STEINMETZ
KAI RUESS
KIMBERLY L. CHU
JEREMY KIRSHNER

CAMAS J. STEINMETZ, Ext. 225
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KENNETH M. DICKERSON
(1926-2008)
MELVIN E. COHN
(1917-2014)

Of Counsel:
NELLIE ANCEL
JOAN A. BORGER

May 12, 2021

Summer Burlison
San Mateo County
Planning and Building Division
sburlison@smcgov.org

Re: Synapse School Parking Reduction Justification

Via: Email

Dear Ms. Burlison:

This letter supplements the Use Permit Amendment application for Synapse School located at 3375 Edison Way in Menlo Park and supersedes and replaces the earlier letter to you regarding the above subject matter from our architect Stephanie de Raynal.

A. Parking Reduction Request

In connection with its Use Permit Amendment application, Synapse School is requesting a parking exception pursuant to Section 6570.9 of the San Mateo County Zoning Ordinance to reduce the number of on-site parking spaces to 60 spaces with 46 parking spaces in the main parking lot and 14 parking spaces in the parking lot east of Building 4. Based on a parking demand study conducted by Hexagon Transportation Consultants, Inc. (Hexagon), providing a total of 60 parking spaces would adequately accommodate parking demand on-site for the proposed increased enrollment of 310 students. Providing any more parking on this previously developed site would sacrifice precious outdoor and play space necessary for the growth and development of the K-8 grade students. Accordingly, the finding of extenuating and/or unusual circumstances under Section 6570.9 can and should be made to justify granting the requested parking reduction.

B. Background; Current Conditions

As part of its existing Use Permit approval (County File Number PLN 2014-00295), Hexagon was granted a parking exception to reduce the number of required on-site parking spaces from the 144 spaces that were calculated (see below)to 128 spaces with 44 of these spaces designated on turf between Buildings 3 and 4. Because the main parking lot was able to accommodate all of the school's parking demand (as demonstrated by Hexagon Transportation Consultant Inc.'s study discussed below), the parking spaces between Buildings 3 and 4 and east of Building 4 were seldom used. The turfed area between Buildings 3 and 4 is currently used as outdoor classrooms under temporary tents to comply with Covid-19 protocol, as well as an outdoor educational garden. Accordingly, the school currently maintains 84 total striped parking spaces on site with 53 parking spaces in the main parking lot, 26 parking spaces in the faculty parking lot east of Building 4, and 5 parking spaces between Buildings 3 and 4.

As discussed below, only a fraction of the 84 striped spaces were ever utilized. During drop-off and pick-up periods, most of the Kindergarten through 8th grade parents do not park their cars. They utilize the traffic loop which enables them to quickly enter and exit the parking lots without queuing impacts. Additionally, the shuttle service offered by Synapse during pre-covid times further reduced parking demand by reducing the number of students being dropped off at the school by 87 students (33% of the enrollment capacity) and reducing the number of students being picked up at school by 36 students (14% of the enrollment capacity). These reductions are expected to resume once shuttle service resumes post-Covid.

C. County Parking Calculations – Existing Use Permit

As stated on page 6 of the staff report dated August 9, 2017 https://planning.smcgov.org/sites/planning.smcgov.org/files/events/PLN2014-00295_PCC20170809_SRT%20-%20w.Attachments.pdf) the parking requirement for the existing Use Permit was calculated as follows:

County Zoning Regulations for Off-Street Parking				
Building	**Use**	**Measuring Units**	**Parking Factor**	**Required Spaces**
3345 Edison Way	Office Areas	269 sq. ft.	1 / 200 sq. ft.	2
	Classrooms	2	1 / classroom	2
	Extended Classroom/Lab Space	13,002 sq. ft.	1 / 2,000 sq. ft.	7
Subtotal:				11
3355 Edison Way	Office Areas	1,641 sq. ft.	1 / 200 sq. ft.	8
	Classrooms	4	1 / classroom	4
	Extended Classroom/Lab Space	4,493 sq. ft.	1 / 2,000 sq. ft.	3
	Multi-Use Space	4,954 sq. ft.	1 / 100 sq. ft.	50
Subtotal:				65
3375 Edison Way	Office Areas	1,159 sq. ft.	1 / 200 sq. ft.	6
	Classrooms	19	1 / classroom	19
	Extended Classroom/Open Area	1,110 sq. ft.	1 / 2,000 sq. ft.	1
	Multi-Use Space	827 sq. ft.	1 / 100 sq. ft.	9
Subtotal:				35
3425 Edison Way	Office Areas	1,913 sq. ft.	1 / 200 sq. ft.	10
	Classrooms	9	1 / classroom	9
	Multi-Use Space	1,340 sq. ft.	1 / 100 sq. ft.	14
Subtotal:				33
Total Parking Required				**144**
Total Parking Provided				128
Parking Deficiency				(16)

The staff report explains that the above calculations were based on Chapter 3 of the Zoning Ordinance. Below are the applicable provisions we assume were used to derive the above calculations:

SECTION 6119. PARKING SPACES REQUIRED. The number of off-street parking spaces required shall be set forth in the following table:

Schools	1 for each classroom, plus 1 for each 100 sq. ft. in the Auditorium, or any space so used.

Medical or Dental Clinics, Banks, Business Offices, Professional Offices	1 for each 200 sq. ft. of floor area.

All Uses Not Enumerated Above Which Are Permitted in "M" Districts	1 space for each 2 employees on largest shift; in no case less than 1 space for each 2,000 sq. ft. of floor area.

Note however that because the use granted under the Use Permit was for a school, and the office and additional extended classroom/lab/open space is ancillary to and for the support of the school use, we question whether the additional parking calculated for the office space and extended classroom/lab/open space really should have been included in the calculations. If these parking spaces were excluded as we believe they should have been, the total count would have been 107 spaces (not 144 spaces). Accordingly, there would have been no parking deficiency, the parking reduction of 16 spaces would not have been required, and the 127 parking spaces would have been 20 spaces in excess of the 107-space parking requirement.

D. <u>County Parking Calculations – Proposed Use Permit Amendment</u>

Although the school is not proposing to add any additional physical space as part of its Use Permit Amendment, the required parking calculations have almost doubled due to changes in the Zoning Ordinance following the original Use Permit approval in 2017. On July 23, 2019, Sections 6277 - 6277.7 of CHAPTER 17.2 "M-1/EDISON/NFO" DISTRICT (MIXED-USE INDUSTRIAL/EDISON/ NORTH FAIR OAKS DISTRICT were amended by Ordinance No. 4815 on July 23, 2019. The applicable provisions are excerpted below:

<u>CHAPTER 17.2 "M-1/EDISON/NFO" DISTRICT (MIXED-USE INDUSTRIAL/EDISON/ NORTH FAIR OAKS DISTRICT)</u>

<u>SECTION 6277.7. PARKING</u>. Parking Standards shall be as specified in Section 6276.7. Alternative parking approaches, including off-site and shared parking, are allowed subject to the standards and conditions described in Section 6570.9, "Alternative Parking Approaches."

SECTION 6276.7. PARKING. Projects shall provide parking as required by Chapter 3 of the Zoning Regulations, except as provided below.

1. Section 6119, Parking Spaces Required. Section 6119 shall be replaced by Table 1 in this Section 6276.7, which sets forth the minimum number of off-street parking spaces required. Parking spaces required by Table 1 may also be modified by the amounts set forth in the Shared Parking and Off-Site Parking regulations in this Chapter. For uses not listed in Table 1, the provisions of Section 6119 shall apply.

TABLE 1

REQUIRED PARKING

N.	**INSTITUTIONAL AND OTHER**	
	1. All uses listed under the "Institutional Use Classification" in Section 6576.3, Uses	1 space per 400 sq. ft.

Note that the above table references "Section 6576.3, Uses" for the "uses listed under the Institutional Use Classification." However, no such section exists in the Zoning Code. Instead, the below definitions of "Institutional Facilities" and "Institutional Use" elsewhere in the Zoning Ordinance were found which include "schools":

SECTION 6277.2. DEFINITIONS.

17. Institutional Facilities

Schools, religious institutions (facilities or meeting places used for worship or religious instruction including, but not limited to, churches, synagogues, mosques, and temples), municipal buildings, hospitals, or permitted uses of a similar nature.

SECTION 6102. DEFINITIONS. For the purpose of this Part, certain terms used herein are defined as follows:

SECTION 6102.49.1. INSTITUTIONAL USE. Any school, hospital or public works facility.

Applying the 1 space / 400 sq. ft. for institutional uses to the existing school's approximately 76,600 square feet of floor area results in a parking requirement of 192 spaces. This is more than 3 times the parking demand that will be generated by the school based on Hexagon's parking demand study discussed further below.

Schools simply do not generate the same parking demand as the other "institutional uses" such as hospitals, religious institutions, municipal buildings, and public works facilities. Users of these other institutional uses generally drive and park at the institution for the duration of their use unlike K-8 schools such as Synapse who are dropped off and then picked up, typically at the entrance of the school without parking at all. Further, unlike institutions where the number of employees is typically a factor of the available square footage, the number of teachers and staff are a factor of the number of classrooms or enrolled students at the school, not the square footage of the school. Applying the parking requirement for other institutional uses to schools simply does not capture the unique parking demand of schools.

E. Hexagon Parking Demand Study

Based on parking demand counts by Hexagon conducted in November 2019, the maximum number of vehicles parked on site ranged from 37 to 50 vehicles between 8:00 AM and 9:00 AM. The school enrollment was 260 students in November 2019 when the parking counts were conducted. With the proposed increased enrollment from 260 to 310 students (a 19.2% increase), the projected parking demand would range between 44 and 60 spaces (an 19.2% increase in the 37-50 vehicles observed parked on site).

Hexagon anticipated that parents of the 30 proposed preschool students would either park in the loading area in front of Building 2 or park in front of Buildings 1 and 2. Because most parents drop K-8 students without parking, there would be enough parking spaces for the pre-school in the morning. In the afternoon, the pre-school students would be dismissed more than a half hour before the K-8 students, so the parking demand would not overlap. Based on these observations and the anticipated pre-school operations, Hexagon concluded that the proposed 60 parking spaces would be sufficient to accommodate the school's anticipated parking demand.

F. <u>Conclusion</u>

In conclusion and as discussed in detail above, the following extenuating and unusual circumstances support the requested parking reduction to 60 total spaces: (1) the parking demand of schools is unique from other institutional uses; (2) the parking demand of Synapse school in particular (60 spaces) would generate less than one-third of the parking spaces that otherwise are required by the code (192 spaces); and (3) the existing constraints of the previously developed site do not allow for more parking without sacrificing valuable outdoor space that is essential for K-8 students growth and development. Granting the proposed parking reduction will result in a parking capacity that much more accurately reflects the actual parking demand at Synapse school.

Sincerely,

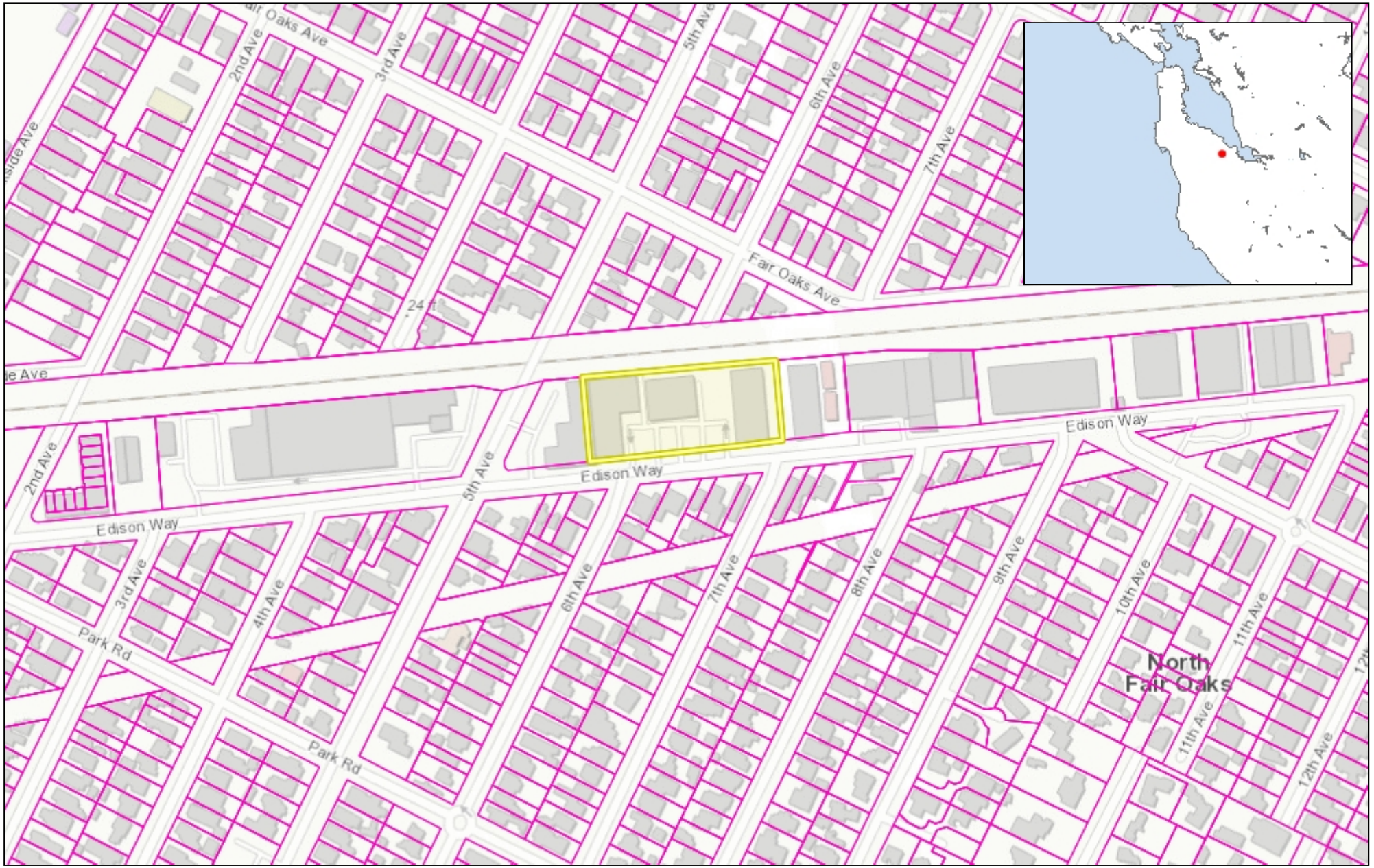
Camas Steinmetz

County of San Mateo - Planning and Building Department

ATTACHMENT B

San Mateo County

County San Mateo, CA



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1: 4,514

San Mateo County

County San Mateo, CA

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1: 4,514

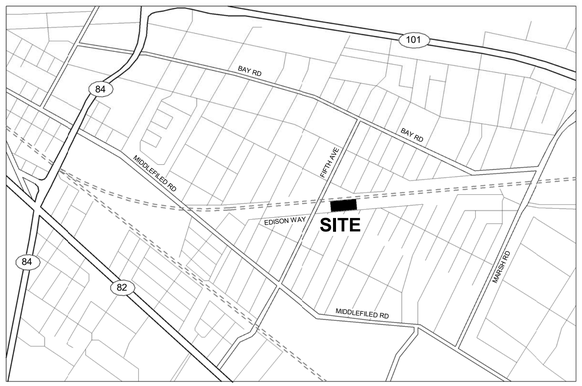
County of San Mateo - Planning and Building Department

ATTACHMENT C

SYNAPSE SCHOOL RENOVATION

3375 EDISON WAY, MENLO PARK

USE PERMIT AMENDMENT APPLICATION



1 LOCATION MAP

3/8" = 1'-0"

DRAWING LIST

SHEET NUMBER	SHEET NAME
CUP APPLICATION	
A01	COVER
A02	SITE PLAN
A03	FLOOR PLANS_BLDG 1
A04	FLOOR PLANS_BLDG 2
A05	ELEVATIONS_BLDG1
A06	ELEVATIONS_BLDG 2
A07	FLOOR PLANS_BLDG 3
A08	FLOOR PLANS_BLDG 4

PROJECT SUMMARY

SCOPE OF WORK INCLUDES:

[BUILDING 1 AND 2]
- DEMOLITION OF ALL EXISTING INTERIOR WALLS, DOORS, AND WINDOWS.
- DEMOLITION OF LIMITED AREA OF EXTERIOR WINDOWS
- CONSTRUCTION OF NEW INTERIOR WALLS, DOORS, AND WINDOWS
- CONSTRUCTION OF NEW EXTERIOR WINDOWS AND DOORS

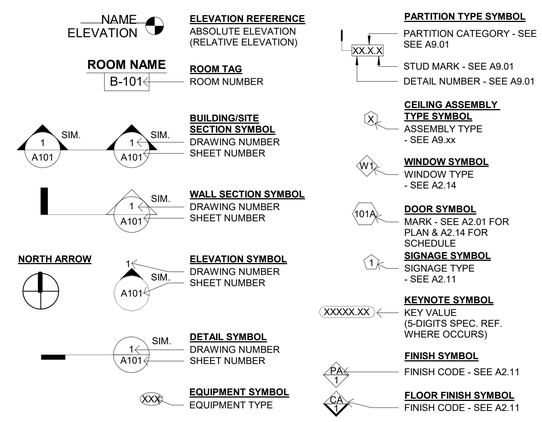
[BUILDING 3]
- CONSTRUCTION OF NEW INTERIOR WALLS AND DOORS TO CREATE PRE-KINDERGARTEN CLASSROOMS

PROJECT LOCATION

3375 EDISON WAY
MENLO PARK, CA 94025

2 BUILDING INFORMATION

1" = 1'-0"



SYMBOLS

12" = 1'-0"

3 GENERAL NOTES

1 : 1

1. EXAMINE THE SITE AND COMPARE IT WITH DRAWINGS. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO THE START OF WORK.
2. THE CONSTRUCTION DOCUMENTS ARE PROVIDED TO ILLUSTRATE THE DESIGN AND GENERAL TYPE OF CONSTRUCTION DESIRED AND IMPLY THE FINEST QUALITY OF CONSTRUCTION MATERIAL AND WORKMANSHIP THROUGHOUT. THE CONTRACTOR SHALL COMPLY WITH THE SPIRIT AS WELL AS THE LETTER IN WHICH THEY WERE WRITTEN.
3. ALL CONSTRUCTION DOCUMENTS ARE COMPLIMENTARY AND WHAT IS CALLED FOR BY ANY WILL BE AS BINDING AS IF CALLED FOR BY ALL.
4. S.E.D. AND S.M.D. FOR LOCATION OF ALL INTERIOR AND EXTERIOR HOUSEKEEPING PADS, VENT, DUCT, CONDUIT, AND SLEEVE PENETRATIONS.
5. PROVIDE AS USED HEREIN SHALL MEAN FURNISH AND INSTALL.
6. PROTECT SITE AND NEW OR EXISTING MATERIALS AND FINISHES FROM DAMAGE WHICH MAY OCCUR FROM CONSTRUCTION DEMOLITION, DUST, WATER ETC. AND PROVIDE AND MAINTAIN TEMPORARY BARRICADE, CLOSURE WALLS ETC. AS REQUIRED TO PROTECT THE PUBLIC DURING THE PERIOD OF CONSTRUCTION. DAMAGE TO NEW AND EXISTING MATERIALS, FINISHES STRUCTURES AND EQUIPMENT SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ARCHITECT.
7. PATCH ALL AREAS DAMAGED DUE TO NEW CONSTRUCTION OR WHERE PENETRATION OF UTILITIES HAS OCCURRED AND BEEN REMOVED. REPAIR ALL DEMOLITION PERFORMED IN EXCESS OF THAT REQUIRED, AT NO COST TO OWNER. PATCH ALL FINISHES TO MATCH EXISTING ADJACENT WHERE NEW CONSTRUCTION MEETS EXISTING.
8. MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DOCUMENTS ON THE SITE DURING ALL PHASES OF CONSTRUCTION, FOR THE USE OF ALL TRADES, AND PROVIDE ALL SUB-CONTRACTORS WITH CURRENT CONSTRUCTION DOCUMENTS AS REQUIRED.
9. REMOVE ALL RUBBISH AND WASTE MATERIALS ON A REGULAR BASIS AND EXERCISE STRICT CONTROL OVER JOB CLEANING TO PREVENT ANY DIRT, DEBRIS OR DUST FROM AFFECTING FINISHED AREA IN OR OUTSIDE SITE.
10. VERIFY ALL DIMENSIONS SHOWN ON DRAWINGS BY TAKING FIELD MEASUREMENTS. PROPER FIT AND ATTACHMENT OF ALL PARTS IS REQUIRED. NOTIFY ARCHITECT OF CONFLICTS PRIOR TO THE START OF WORK. DO NOT SCALE DRAWINGS TO LAY OUT WALL. TYPICAL DIMENSIONS SHOWN ARE TO THE FACE OF STUD, UNLESS OTHERWISE NOTED. ALL DIMENSIONS NOTED "CLEAR" SHALL BE STRICTLY MAINTAINED.
11. THE ARCHITECT HAS NO KNOWLEDGE OF AND SHALL NOT BE HELD LIABLE FOR ANY ASBESTOS OR OTHER HAZARDOUS MATERIAL ON JOB SITE. IF ASBESTOS OR OTHER HAZARDOUS MATERIALS ARE DISCOVERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY ISOLATE THE AFFECTED AREA AND NOTIFY THE OWNER FOR FURTHER INSTRUCTION BEFORE PROCEEDING.
12. ALL MATERIALS TO BE INSTALLED ARE TO BE NEW. DO NOT REUSE REMOVED OR OTHERWISE DEMOLISHED MATERIALS UNLESS DIRECTED BY THE
13. ARCHITECT.

    DIMENSIONS ARE TO FACE OF GWB OR GRID, U.O.N. GRID LINES CORRESPOND TO CENTER OF STUD OR COLUMN, U.O.N.

K2A
ARCHITECTURE + INTERIORS

555 DeHaro Street, Suite 380
San Francisco, CA 94107
tel 415.487.6900
fax 415.487.6909

■ Client

SYNAPSE SCHOOL

■ Project Name

SYNAPSE SCHOOL RENOVATION

3375 EDISON WAY
MENLO PARK, CA 94025

■ Consultants

■ Sheet Name

COVER

■ Revisions

■ Sheet Information

Drawing Scale: As indicated
Drawn By: Author

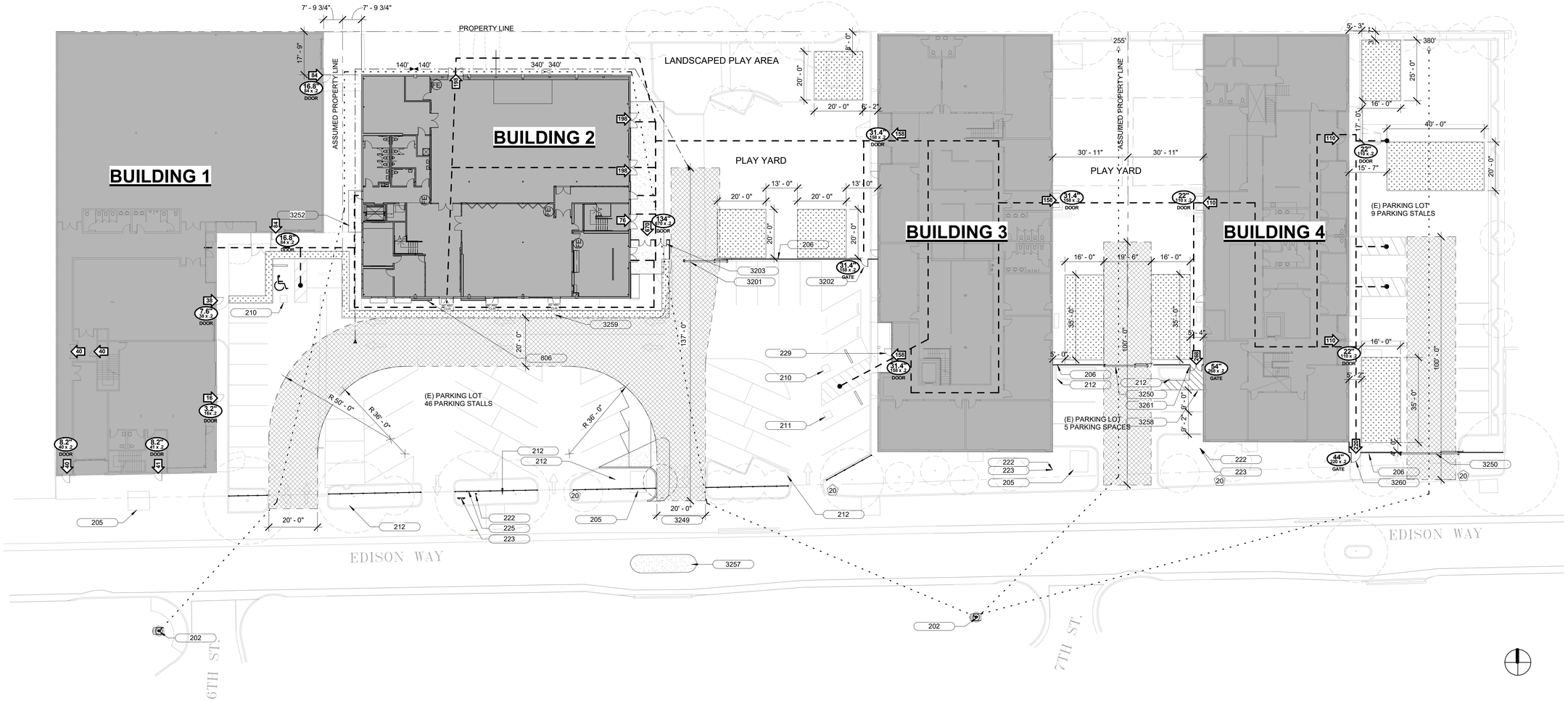
■ Project Information

Date: 4/21/2021
Status: USE PERMIT APPL.
Project Number: 1902

■ Sheet

A01

11/1/2019 9:37:20 AM



1 SITE EGRESS & FIRE ACCESS PLAN
3/64" = 1'-0"

SHEET NOTES

PARKING DEMAND SUMMARY
Parking demand as observed by Hexagon in November 2019: 37 - 50 stalls
Student enrollment in 2019: 260 students
Revised student enrollment capacity: 310 students (19.2% increase)
Parking demand for revised student enrollment capacity: 44 - 60 stalls

PARKING PROPOSED
Building 1 & 2 parking lot: 46 stalls
Building 3 parking lot: 5 stalls
Building 4 parking lot: 9 stalls
Total parking stalls proposed: 60 stalls

2 PARKING DEMAND SUMMARY
1" = 1'-0"

KEYNOTE

KEY VALUE	DESCRIPTION
202	(E) FIRE HYDRANT
205	(E) TRANSFORMER
206	(E) CHAIN LINK FENCE
210	(E) VAN ACCESSIBLE PARKING SPACE
211	(E) ACCESIBLE PARKING
212	(E) PLANTER W 6" CURB
222	(E) PIV
223	(E) FDC
225	(E) CHECK VALVE
229	(E) MAIN ACCESS/ ENTRANCE TO CAMPUS.
806	EMERGENCY ACCESS KEY LOCK BOX, KNOX OR OTHER FIRE DEPARTMENT APPROVED EQUAL. VERIFY LOCATION WITH FIRE MARSHAL.
3201	20" CLEAR WIDTH SLIDING CHAINLINK FIRE ACCESSS GATE W/ FD APPROVED LOCK AND KNOX BOX.
3202	3'-0" ACCESSIBLE CHAIN LINK GATE. PANIC HARDWARE.
3203	6'-0" ACCESSIBLE CHAIN LINK GATE. PANIC HARDWARE.
3249	(N) 20'-0" MIN CLR FIRE ACCESS
3250	(E) CHAIN LINK SLIDING GATE
3252	(N) ELEVATED WALKWAY, S.C.D.
3257	(N) AC PAVING WHERE CONCRETE CURB AND PLANTER HAVE BEEN REMOVED IN PUBLIC RIGHT OF WAY
3258	(N) PAVEMENT STRIPING
3259	(N) TRUNCATED DOME WARNING STRIP. 3'-0" MIN.
3260	(N) 4'-0" ACCESSIBLE CHAIN LINK GATE. PANIC HARDWARE.
3261	(N) 5'-0" ACCESSIBLE CHAIN LINK GATE. PANIC HARDWARE.

LEGEND

- FIRE HYDRANTS
- DISTANCE FROM HYDRANT TO BUILDING PERIMETER; 600' MAX., CFC 507.5.1
- HOSE DISTANCE FROM FIRE ACCESS ROAD OR LANE TO BUILDING PERIMETER;150' MAX., CFC 503.1.1
- OCCUPANT LOAD AT POINT OF EGRESS PATH
- MIN. EGRESS WIDTH:
  32" MIN. @ DOORS (CBC 1010.1.1)
  72" MIN. @ CORRIDORS (CBC 1020.2)
  EGRESS WIDTH FACTOR: (.3) FOR STAIRWAYS & (.2) AT OTHER EGRESS COMPONENTS
  OCCUPANT LOAD AT POINT OF EGRESS PATH
- PROPERTY LINE
- FIRE APPARATUS ACCESS LANE: 20'-0" MIN CLR WIDTH AT STRAIGHT SECTIONS. 25' MIN AT TURNS (25 MIN ID, 50' MIN CLR OD); 13'-6" OVERHEAD CLR. CFC 503.2.1.
- ENTRANCE SIGN "B", PER THE MENLO PARK FIRE PROTECTION DISTRICT APPROVED FIRE LANE SIGNS
- ACCESSIBLE CLEARANCE - DIMENSIONS AS INDICATED . 2% MAX SLOPE ANY DIRECTION
- (E) OUTDOOR OPEN SHELTER
- ACCESSIBLE PARKING

  TOTAL NUMBER OF PARKING SPACES ADJACENT TO BUILDING 2 = 51
  NUMBER OF ACCESSIBLE PARKING STALLS REQUIRED PER CBC TABLE 11B-6: 3
  NUMBER OF VAN-ACCESSIBLE PARKING STALLS PROVIDED: 2
- ACCESSIBLE PATH OF TRAVEL

  ACCESSIBLE PATH OF TRAVEL (POT) AS INDICATED ON PLAN IS A BARRIER-FREE ACCESS POT WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING 1/2" BEVELED AT 1:2 MAX. SLOPE, OR VERTICAL LEVEL CHANGES NOT EXCEEDING 1/4" MAX. AND AT LEAST 48" WIDE. SURFACE IS SLIP-RESISTANT, STABLE, FIRM AND SMOOTH. CROSS SLOPE DOES NOT EXCEED 2% AND SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5% UNLESS OTHERWISE INDICATED.

  ACCESSIBLE PATH OF TRAVEL (POT) SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM, AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM WALL AND ABOVE 27" AND LESS THAN 80". ARCHITECT HAS VERIFIED THAT THERE ARE NO BARRIERS IN THE POT.

K2A ARCHITECTURE + INTERIORS
555 DeHaro Street, Suite 380
San Francisco, CA 94107
tel 415.487.6900
fax 415.487.6909

LICENSED ARCHITECT
STEVEN BENJAMIN KOLM
NO.C15946
EXP. 03/21
STATE OF CALIFORNIA

■ Client
SYNAPSE SCHOOL

■ Project Name
SYNAPSE SCHOOL RENOVATION
3355 EDISON WAY, MENLO PARK CA 94025

■ Consultants

■ Sheet Name
SITE EGRESS & FIRE ACCESS PLAN

■ Revisions

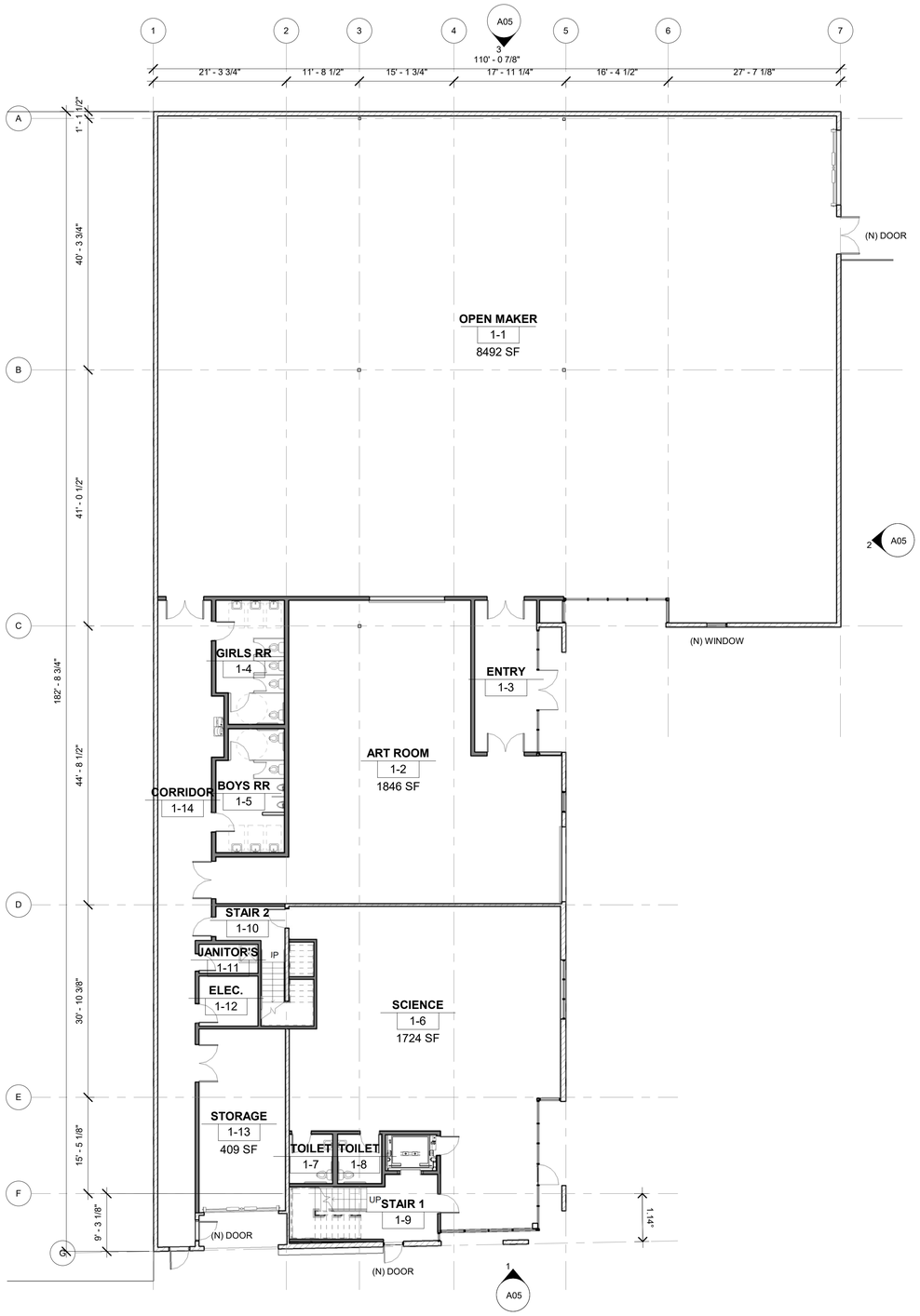
Revision 1	6/8/2020
Revison 2	10/22/2020

■ Sheet Information
Drawing Scale: As indicated
Drawn By: Author

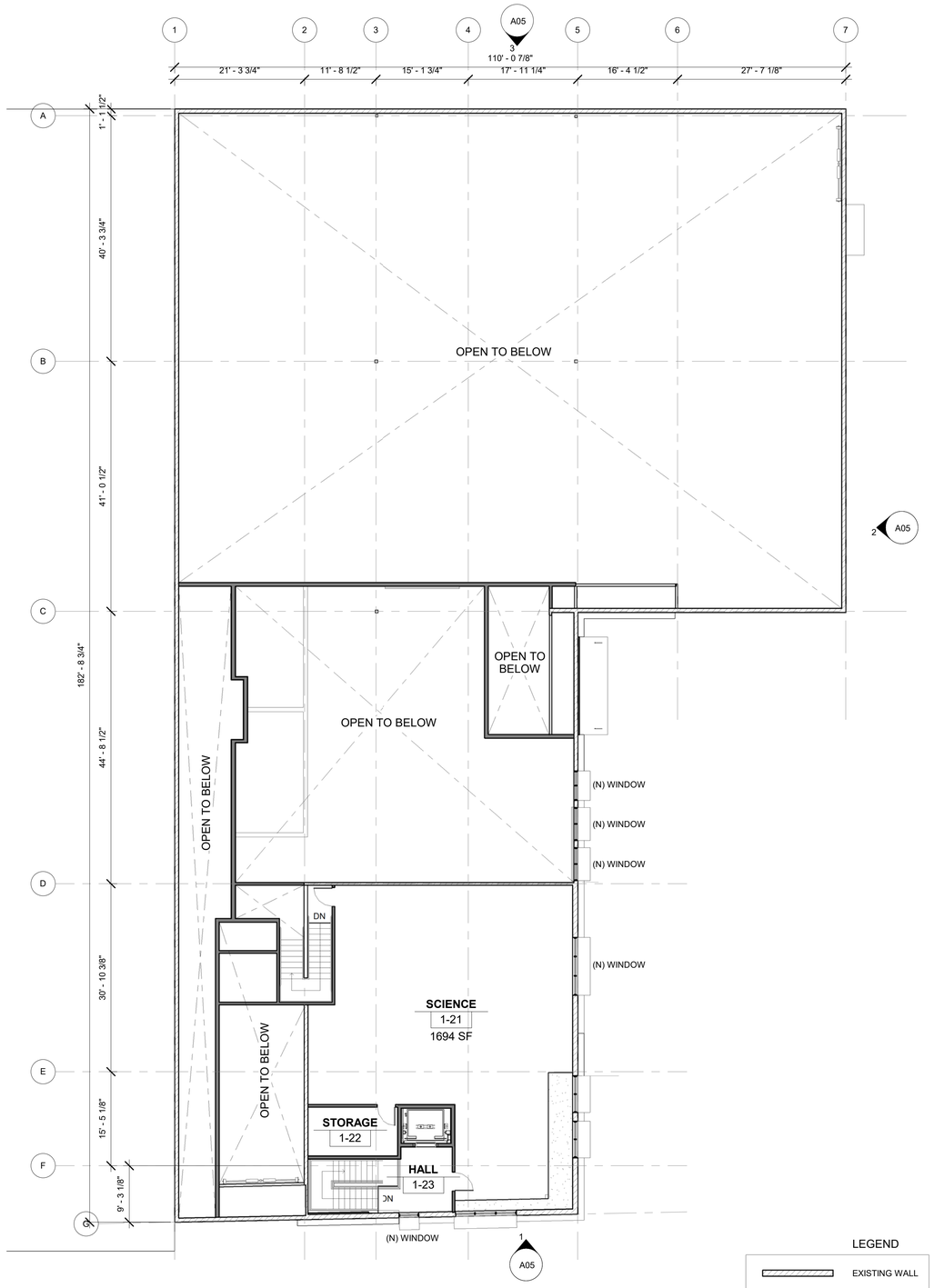
■ Project Information
Date: 4/21/2021
Status: USE PERMIT APPL.
Project Number: 1902

■ Sheet
A02

4/19/2021 1:14:33 PM



1 FLOOR PLAN (BLDG 1) - LEVEL 01
3/32" = 1'-0"



2 FLOOR PLAN (BLDG 1) - LEVEL 02
3/32" = 1'-0"

LEGEND

EXISTING WALL

NEW WALL

11/1/2019 9:37:31 AM

K2A
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■ Client

SYNAPSE SCHOOL

■ Project Name

SYNAPSE SCHOOL
RENOVATION

3375 EDISON WAY
MENLO PARK, CA 94025

■ Consultants

■ Sheet Name

FLOOR PLANS_BLDG 1

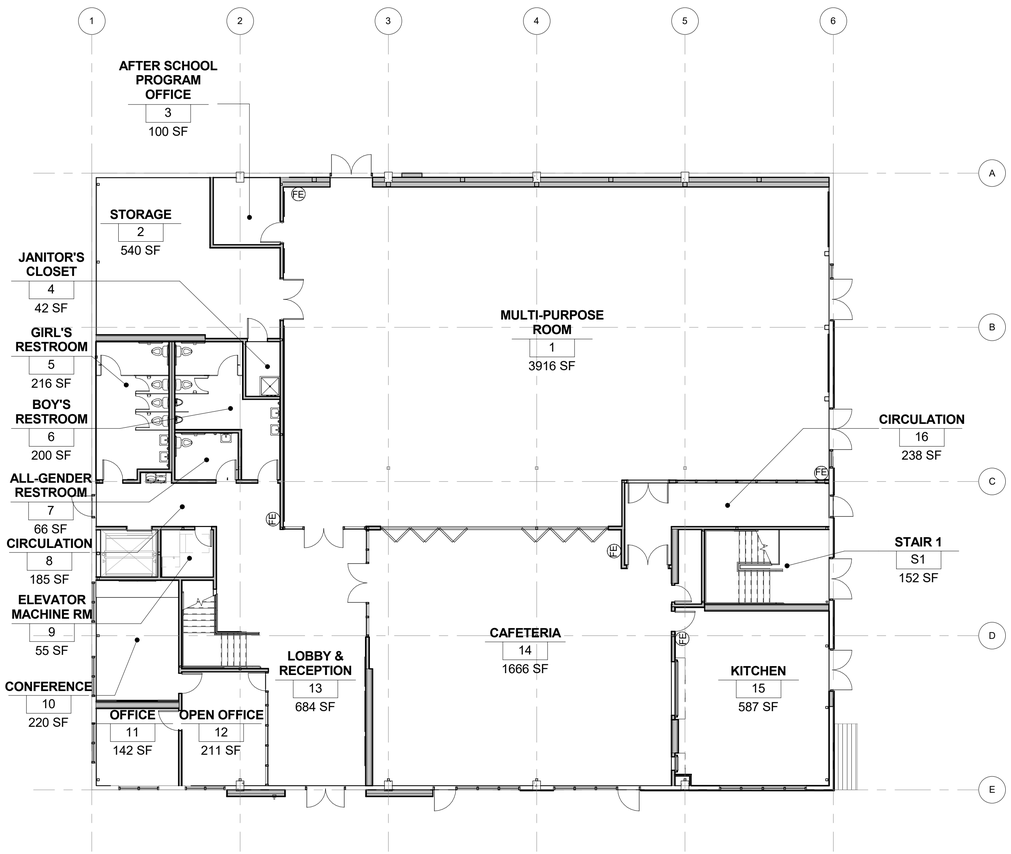
■ Revisions

■ Sheet Information
Drawing Scale: 3/32" = 1'-0"
Drawn By: Author

■ Project Information
Date: 4/21/2021
Status: USE PERMIT APPL.
Project Number: 1902

■ Sheet

A03



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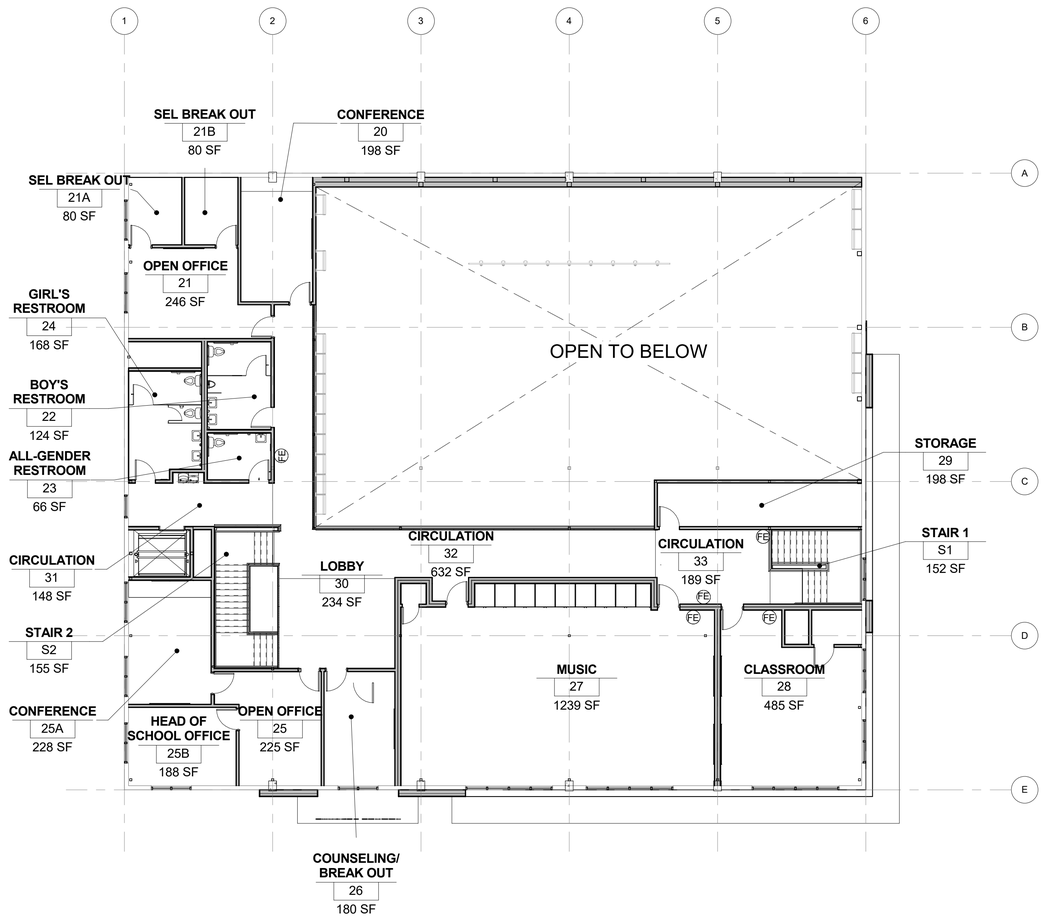

2 FLOOR PLAN - LEVEL 2
3/32" = 1'-0"

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tel 415.487.6900
fax 415.487.6909

■ Client
SYNAPSE SCHOOL

■ Project Name
SYNAPSE SCHOOL RENOVATION
3355 EDISON WAY, MENLO PARK CA 94025

■ Consultants

■ Sheet Name
FLOOR PLANS _BLDG 2

■ Approval Stamp

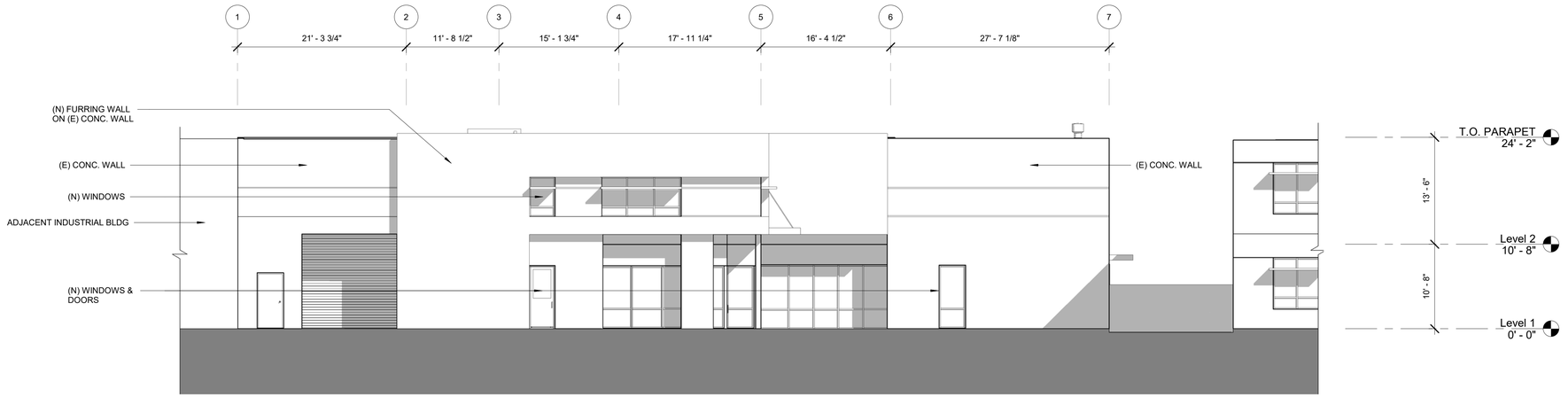
■ Revisions

■ Sheet Information
Drawing Scale: 3/32" = 1'-0"
Drawn By: Author

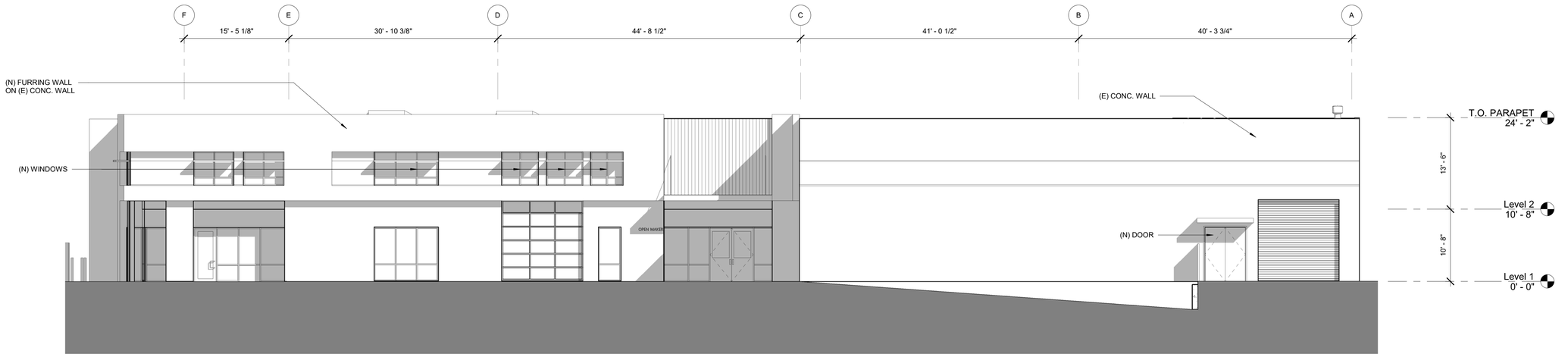
■ Project Information
Date: 1/30/2020
Status: USE PERMIT APPL.
Project Number: 1902

■ Sheet
A04

4/22/2021 4:34:43 PM



1 SOUTH ELEVATION_BLDG 1
1/8" = 1'-0"



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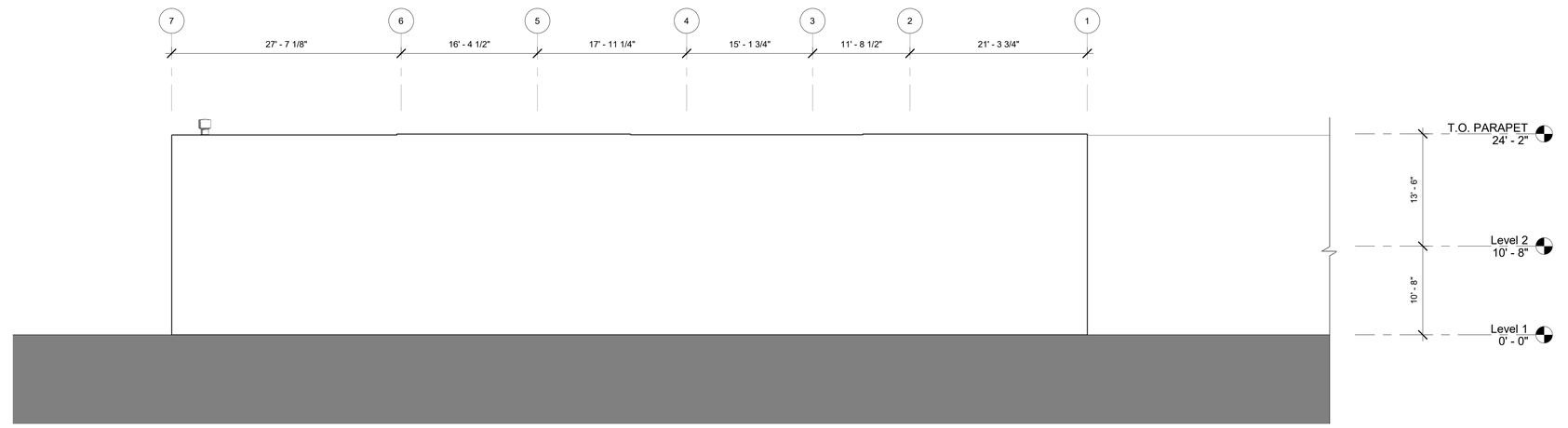

3 NORTH ELEVATION_BLDG 1
1/8" = 1'-0"

11/1/2019 9:37:41 AM

K2A
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+ INTERIORS

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■ Client
SYNAPSE SCHOOL

■ Project Name
SYNAPSE SCHOOL RENOVATION

3375 EDISON WAY
MENLO PARK, CA 94025

■ Consultants

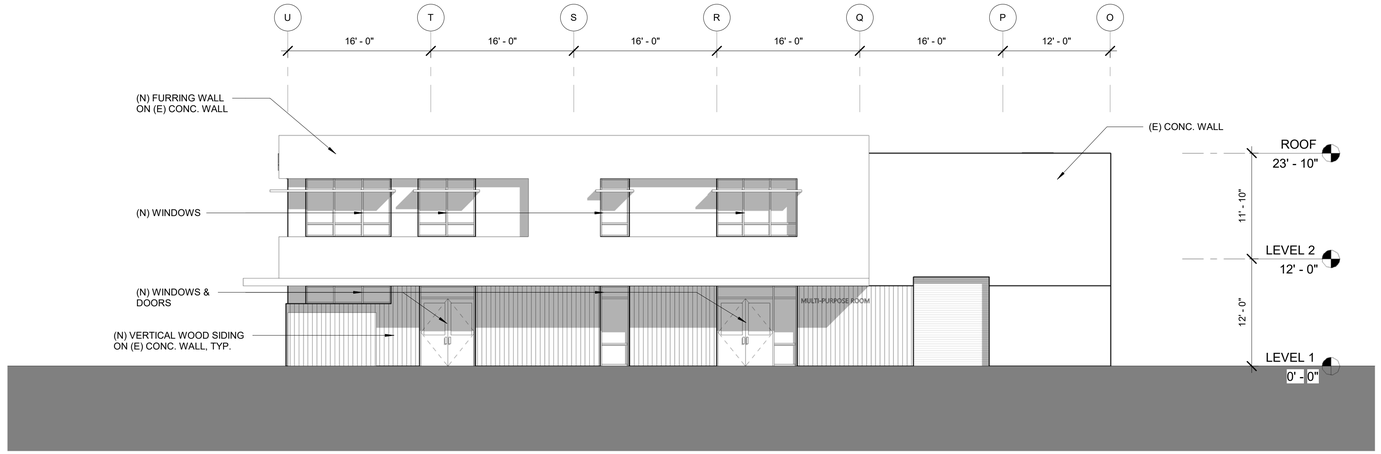
■ Sheet Name
ELEVATIONS_BLDG1

■ Revisions

■ Sheet Information
Drawing Scale: 1/8" = 1'-0"
Drawn By: Author

■ Project Information
Date: 4/21/2021
Status: USE PERMIT APPL.
Project Number: 1902

■ Sheet
A05



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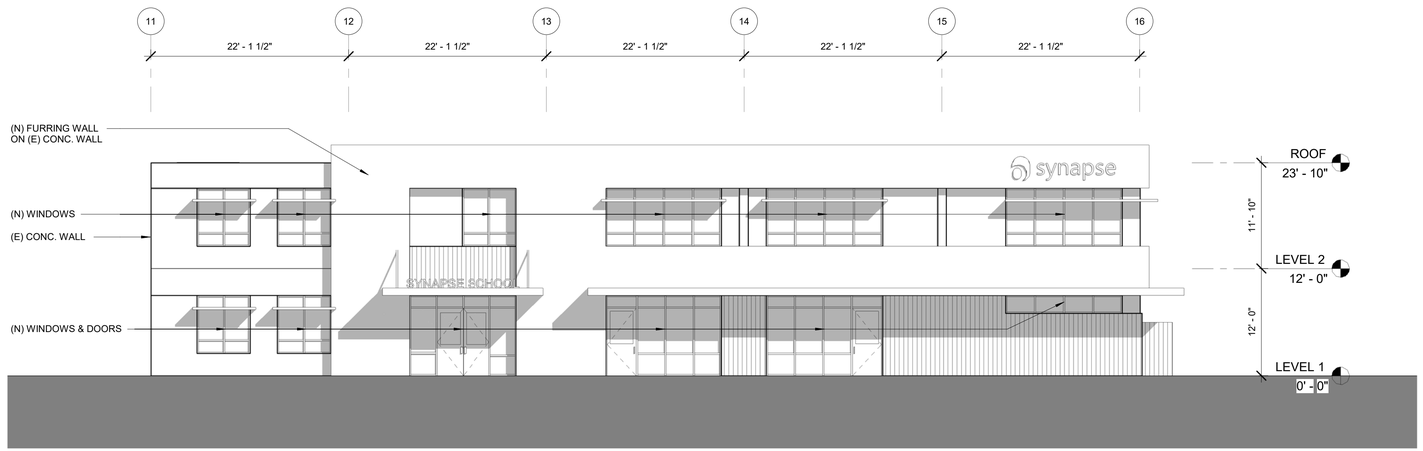

2 SOUTH ELEVATION_BLDG 2
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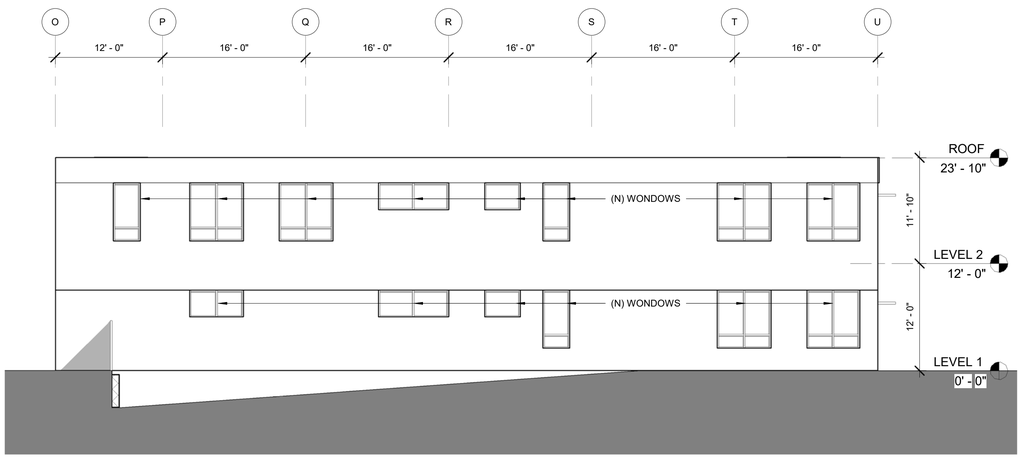

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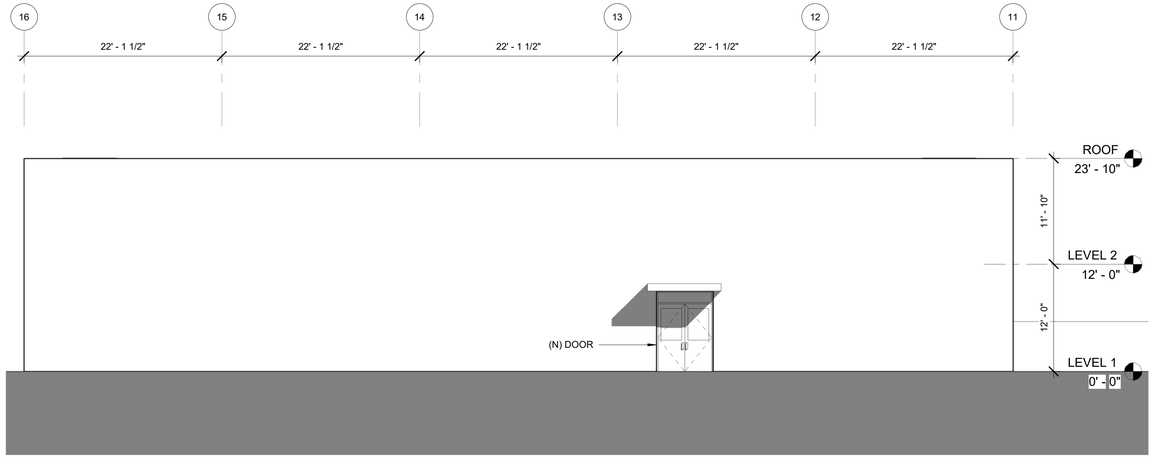

4 NORTH ELEVATION_BLDG 2
1/8" = 1'-0"

11/1/2019 9:37:47 AM

K2A
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fax **415.487.6909**

■ Client
SYNAPSE SCHOOL

■ Project Name
SYNAPSE SCHOOL RENOVATION

3375 EDISON WAY
MENLO PARK, CA 94025

■ Consultants

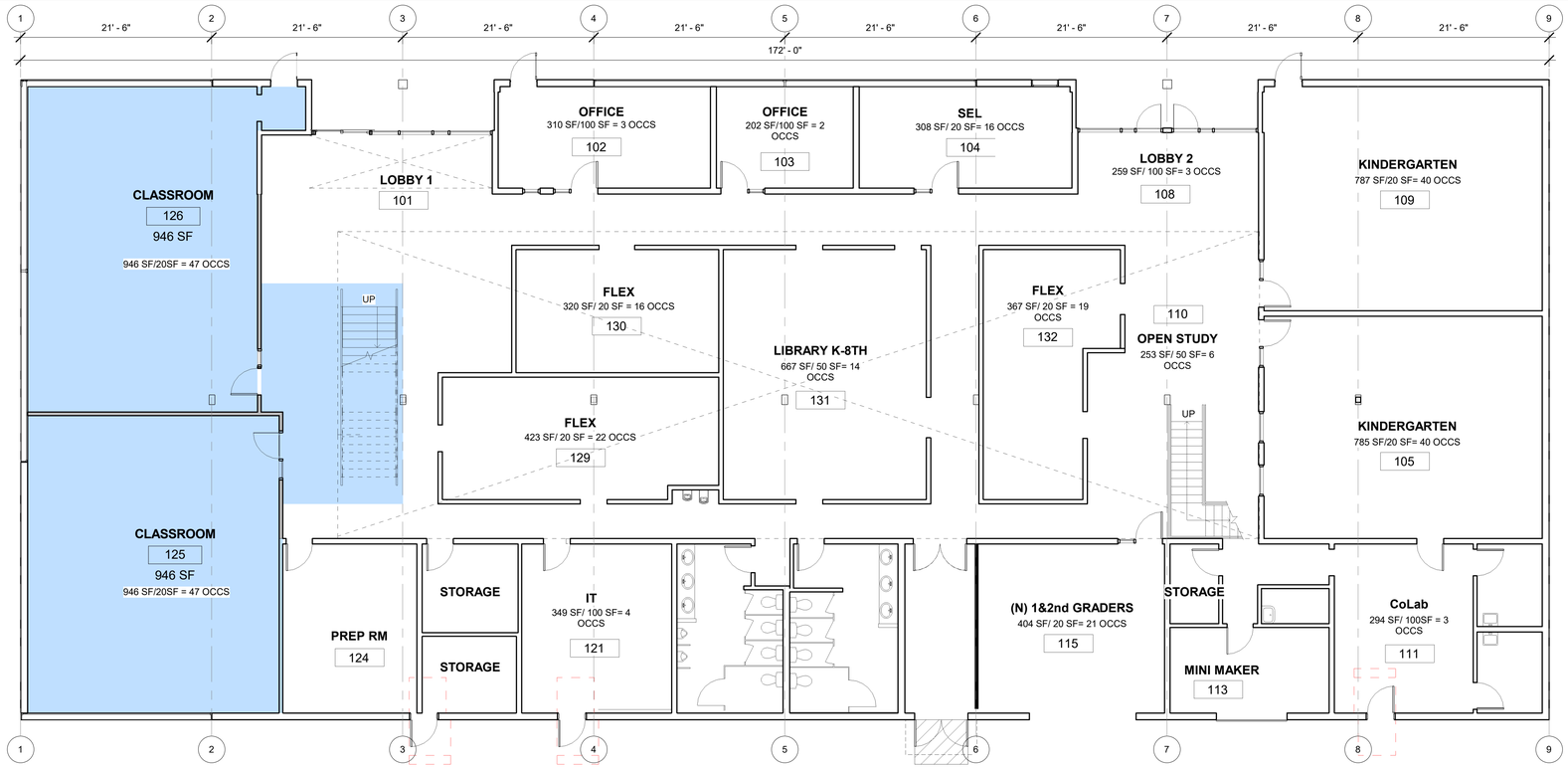
■ Sheet Name
ELEVATIONS_BLDG 2

■ Revisions

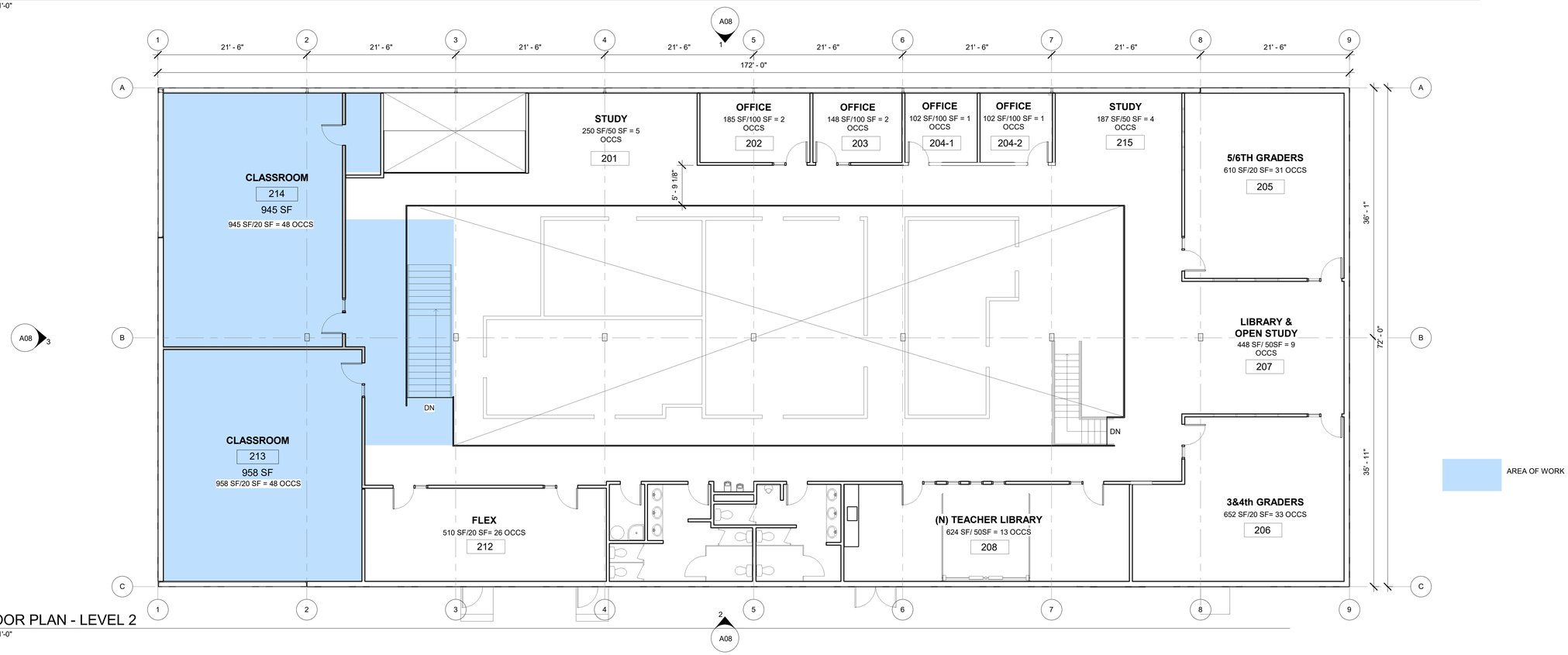
■ Sheet Information
Drawing Scale: 1/8" = 1'-0"
Drawn By: Author

■ Project Information
Date: 4/21/2021
Status: USE PERMIT APPL.
Project Number: 1902

■ Sheet
A06



1 FLOOR PLAN - LEVEL 1
1/8" = 1'-0"



2 FLOOR PLAN - LEVEL 2
1/8" = 1'-0"

12/7/2020 8:47:06 AM

K2A
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■ Client
SYNAPSE SCHOOL

■ Project Name
SYNAPSE SCHOOL RENOVATION BUILDING 3

3375 EDISON WAY, MENLO PARK

■ Consultants

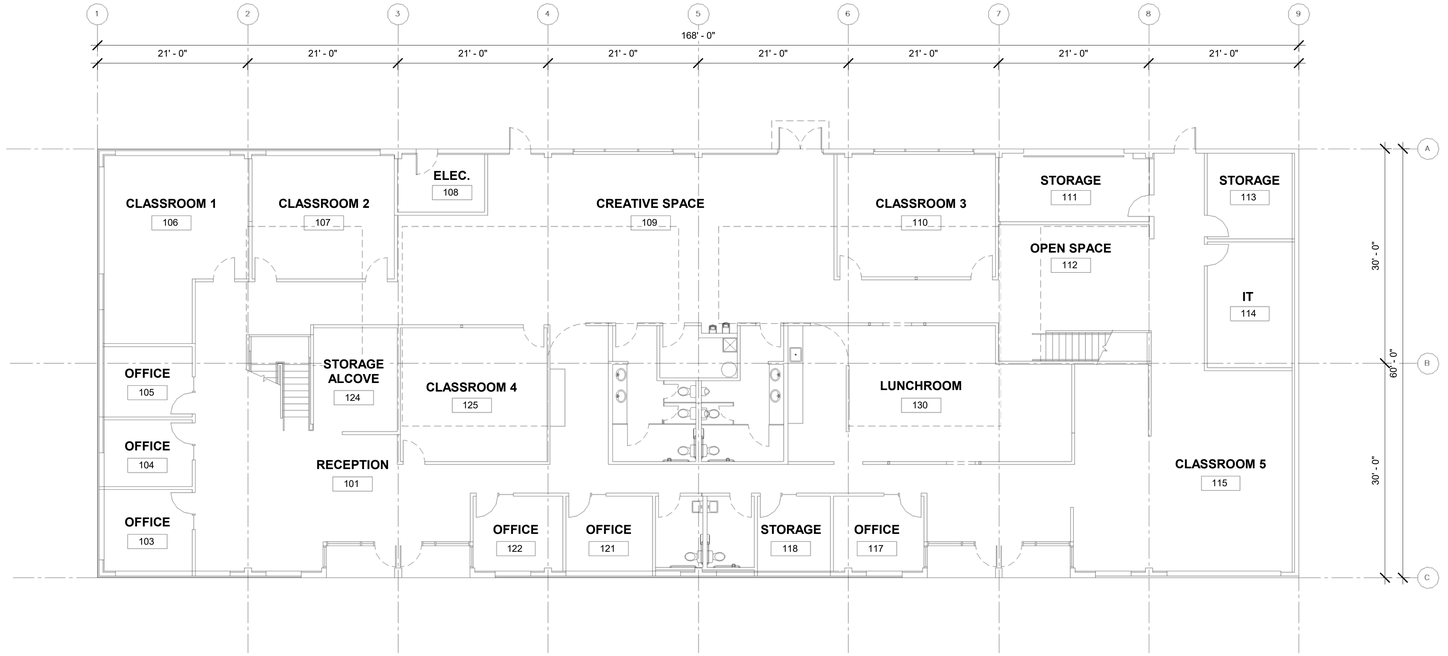
■ Sheet Name
FLOOR PLAN - BLDG 3

■ Revisions

■ Sheet Information
Drawing Scale: 1/8" = 1'-0"
Drawn By: Author

■ Project Information
Date: 4/21/2021
Status: USE PERMIT APPL.
Project Number: 1902

■ Sheet
A07



** NOTE :

NO INTERIOR OR EXTERIOR WORK IS PLANNED

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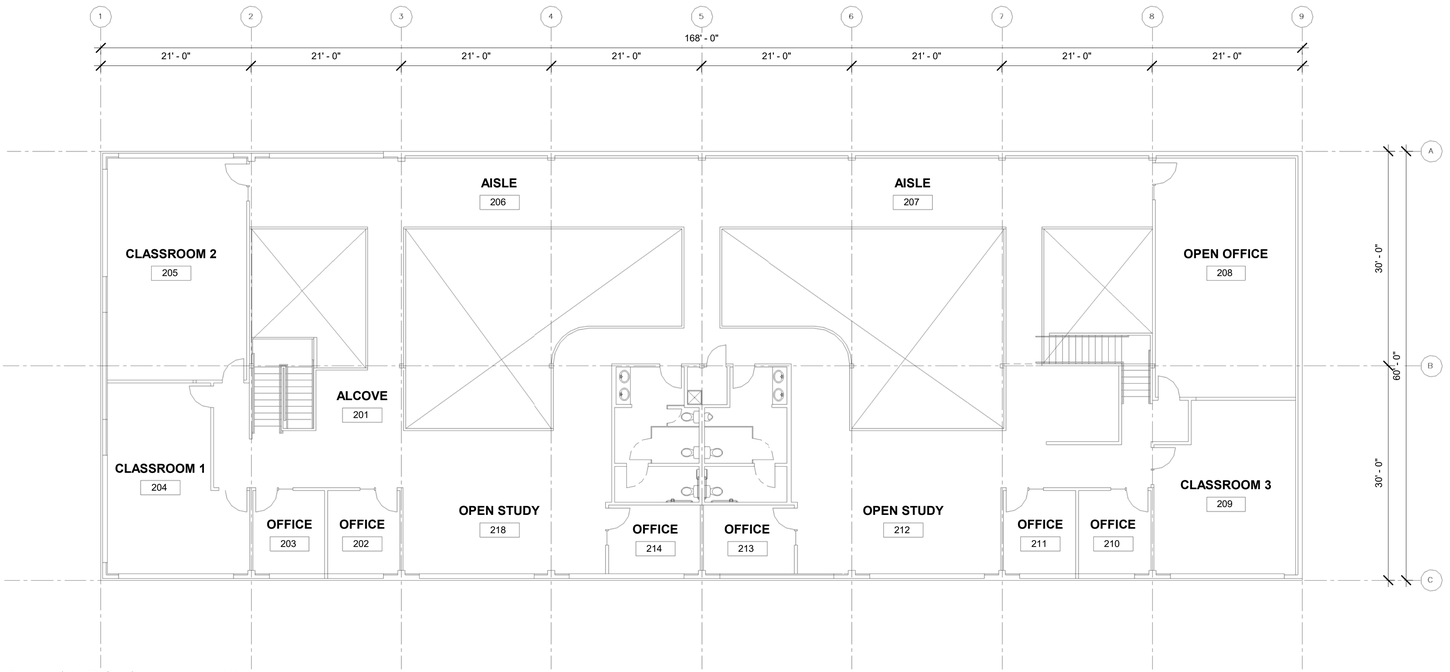
1" = 10'-0"



** NOTE :

NO INTERIOR OR EXTERIOR WORK IS PLANNED

2 FLOOR PLAN (BLDG 4) - LEVEL 02
1" = 10'-0"

11/1/2019 9:37:54 AM

K2A
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+ INTERIORS

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■ Client

SYNAPSE SCHOOL

■ Project Name

SYNAPSE SCHOOL
RENOVATION

3375 EDISON WAY
MENLO PARK, CA 94025

■ Consultants

■ Sheet Name

FLOOR PLANS_BLDG 4

■ Revisions

■ Sheet Information
Drawing Scale: 1" = 10'-0"
Drawn By: Author

■ Project Information
Date: 10/29/19
Status: USE PERMIT APPL.
Project Number: 1902

■ Sheet

A08

County of San Mateo - Planning and Building Department

ATTACHMENT D

COUNTY OF SAN MATEO, PLANNING AND BUILDING DEPARTMENT

ADDENDUM TO THE SYNAPSE SCHOOL EXPANSION PROJECT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION 3375 Edison Way (APNs 060-042-260 and 060-042-240)

FILE No: PLN2014-00295

Owner: 3355 Edison Partners

Location: 3375, 3355, 3345, and 3425 Edison Way, North Fair Oaks

APNs: 060-042-260 (3375, 3355, and 3345 Edison Way) and 060-042-240 (3425 Edison Way)

The County of San Mateo (County) has prepared an Addendum to the Synapse School Expansion Project Initial Study/Mitigated Negative Declaration (IS/MND) pursuant to the California Environmental Quality Act (CEQA) Guidelines. This addendum analyzes the impacts of Amending the Synapse School (school) Non-Conforming Use Permit (PLN2014-00295), specifically the proposal to increase student capacity from 260 to 310 students and reduce on-site parkin from 218 spaces to 60 spaces.

On August 9, 2017 the Planning Commission approved a non-conforming use permit to expand school operation into existing adjacent onsite buildings, increasing enrollment from 219 to 260 students, and reducing parking requirements from 144 spaces to 128 spaces. Additionally, the Synapse School Initial Study/Mitigated Negative Declaration was adopted. The non-conforming use permit established a trip cap of 275 trips and required the school to conduct bi-annual traffic counts to ensure compliance with the cap and to document any traffic impacts on Edison Way. The applicant was required to expand their shuttle program document ridership numbers and install a left turn refuge lane on Marsh Road to improve intersection operation.

In compliance with these mitigation measures/conditions of permit approval, the school installed the refuge lane on Marsh Road. The shuttle program currently has 10 shuttles serving 87 students in the morning and 5 shuttles serving 36 students in the afternoon. Two traffic counts were conducted in 2018 and 2019 as shown in Appendix A of the traffic report prepared by Hexagon traffic consultants. The traffic counts show that the school has remained in compliance with the Use Permit conditions by keeping the AM

peak hour trips to under the required 275 trips with an average of 269 trips in 2018 and 243 trips in 2019.

An updated traffic analysis was prepared by Hexagon Transportation Consultants dated April 21, 2021. The report analyzes the impacts of increasing student capacity and reducing parking. To accommodate the increase in student capacity, the traffic engineer recommended increasing the AM peak hour trip cap to provide a feasible target. Only under cumulative conditions would the added project trips cause in increase in vehicle delays at the intersection of 5th Avenue and Edison Way and 2nd Avenue and Middlefield Road. The traffic study recommends the continued expansion of the shuttle program, staggering pre-school start times, and continued staff monitors on site during drop-off and pick-up times. With the continued implementation of these mitigations, which were approved and implemented with the previous use permit conditions, the level of service impacts at key intersections would be reduced to less than 4 seconds, thus no significant adverse environmental impacts are anticipated.

Parking demand was also studied over the course of 3 days. Thirty (30) spaces would be reserved for pre-school students and a majority of the K-8 students would utilize the drop-off/pick-up area. The traffic study observed a maximum of 50 spaces utilized. To increase space for student activities and increase the drop-off efficiency, key parking spaces were eliminated from the plans. The decrease in parking provided is not anticipated to increase traffic impacts.

After reviewing and confirming the compliance of Synapse School with previously approved conditions and reviewing the updated traffic study (Hexagon, 2021), the County has determined that amendment of the use permit for the enrollment increase and parking reduction will not result in significant traffic impacts at the specified intersections of 5th Avenue and Edison Way and 2nd Avenue and Middlefield Road. Minor modification of “Mitigation Measures 3, 4 and 6” is required to reflect the changes to the project and the recommendations from the updated traffic study as follows:.

> **Mitigation Measure 3**: All ~~128~~ 60 on-site parking spaces shall be appropriately striped. Striping marks shall be maintained in a clear and visible manner so that they are easily recognizable to drivers.
>
> **Mitigation Measure 4:** Normal operation of the school shall not exceed ~~275~~ 298 morning peak hour trips. The morning peak hour is defined as the highest one-hour period between 7:00 a.m. - 9:00 a.m. during which the maximum traffic generated by the school occurs.
>
> The applicant shall retain a third-party traffic consultant to count the trip generation of the school, which would include counting the school driveways plus counting any school-related traffic that is dropping off students along Edison Way or any of its cross-streets. The third-party consultant will conduct the counts over three (3) weekdays (a Tuesday, Wednesday, and/or Thursday) in October and March of each school year, excluding scheduled school holidays. The trip count shall be the

average of the three weekday counts. Concurrent with the trip counts, the third-party traffic consultant shall conduct a queuing analysis for on-street queuing due to driveway back-up at the designated on-site pick-up/

drop-off points for the school. The data from the traffic counts shall be submitted to the County of San Mateo Traffic Services and the Current Planning Section of the County of San Mateo Planning and Building Department in a report for review and acceptance. The County may also choose to conduct its own monitoring if desired.

If the monitoring shows that the trip cap is exceeded the applicant shall have 30 days to prepare and submit a Transportation Demand Management (TDM) Program that incorporates measures to reduce the number of trips below the trip cap, and shall have an additional 30 days to implement the TDM Program to bring the site into compliance with the trip cap. Measures included in the TDM Program may include, but shall not be limited to, staggering start times, adding shuttle buses, initiating a carpooling program, and offering staff incentives to take alternative transportation. A subsequent monitoring will be conducted by the County 30 days following implementation of the TDM Program. If the subsequent monitoring indicates that the site still exceeds the trip cap, then the applicant may shall reduce student enrollment to bring the site into compliance with the trip cap. Non-compliance evidenced by the subsequent monitoring may also result in review of the use permit by the Planning Commission.

Mitigation Measure 6: The maximum student enrollment shall not exceed ~~260~~ 310 students. The applicant shall submit an annual report stating the total number of students and staff attending or working at the school prior to the beginning of each school year. Any increase in student enrollment beyond 260 310 students shall require an amendment to the Non-Conforming Use Permit and shall require an updated Traffic Impact Analysis.

The school will still be required to provide bi-annual traffic counts directly to the County for review. If the school is out of compliance, a Transportation Demand Management Program will be required to bring the site into compliance. If it is determined compliance is not feasible, a reduction in student capacity will be required.

The proposed use permit amendment would not alter the analysis or conclusions of any other portions of the adopted Mitigated Negative Declaration.

The County prepared this Addendum in accordance with Section 15164 of the CEQA Guidelines to evaluate whether the proposed changes to the project would result in any new or more severe significant impacts. Beyond the modifications to mitigation measures identified above, no other changes to the IS/MND are required. The proposed use permit amendment will not result in any new significant environmental effects or

substantial increase in the severity of the prior impacts identified in the IS/MND. Further, there are no changes in circumstances or new information that would otherwise warrant any subsequent environmental review under Public Resources Code Section 21166 or CEQA Guidelines Section 15162. The County has therefore determined that the IS/MND adequately addresses the potential environmental impacts of the proposed use permit amendment, and no further environmental review is necessary.

CEQA Compliance

According to Section 21166 of CEQA and Section 15162 of the State CEQA Guidelines, when an EIR has been certified or a Negative Declaration adopted for a project, no Subsequent EIR or Negative Declaration shall be prepared for the project unless the lead agency determines that one or more of the following conditions are met:

1. Substantial project changes are proposed that will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes would occur with respect to the circumstances under which the project is undertaken that require major revisions to the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance that was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified or the Negative Declaration that was adopted shows any of the following:
    a. The project will have one or more significant effects not discussed in the previous EIR or Negative Declaration;
    b. Significant effects previously examined will be substantially more severe than identified in the previous EIR;
    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponent declines to adopt the mitigation measures or alternatives; or
    d. Mitigation measures or alternatives that are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponent declines to adopt the mitigation measures or alternatives.

Preparation of an Addendum to a Negative Declaration is appropriate when none of the conditions specified in Section 15162 (above) are present and some minor technical changes to the previously certified Initial Study/Negative Declaration are necessary.

After evaluating the changes proposed pursuant to the use permit amendment, the County of San Mateo has determined that: 1) none of the conditions requiring preparation of a subsequent environmental document have occurred, and 2) the circumstances described in Section 15164 of the CEQA Guidelines allowing preparation of an addendum exist, and no further environmental review is required.

References:

Hexagon Transportation Consultants (2021). Synapse School Expansion Project II, Traffic Impact analysis.

COUNTY OF SAN MATEO, PLANNING AND BUILDING DEPARTMENT

NOTICE OF INTENT TO ADOPT
MITIGATED NEGATIVE DECLARATION

A notice, pursuant to the California Environmental Quality Act of 1970, as amended (Public Resources Code 21,000, et seq.), that the following project: *Synapse School Expansion*, when adopted and implemented, will not have a significant impact on the environment.

FILE NO.: PLN 2014-00295 MAR 30 2017

POSTING ONLY

BESZ DE LA VEGA

OWNER: Anthony and Johnny Zanette; 3355 Edison Partners

APPLICANT: Synapse School, Attention: Karen McCown

ASSESSOR'S PARCEL NOS.: 060-042-260 (3375, 3355, and 3345 Edison Way) and 060-042-240 (3425 Edison Way)

LOCATION: 3375, 3355, 3345, and 3425 Edison Way, North Fair Oaks (existing school operates at 3375 Edison Way)

PROJECT DESCRIPTION

The applicant is seeking a Non-Conforming Use Permit to expand the existing Synapse School facility located at 3375 Edison Way into the existing neighboring buildings at 3355, 3345, and 3425 Edison Way in the unincorporated area of North Fair Oaks. The proposed project includes the request for an off-street parking exception as part of the Non-Conforming Use Permit to reduce the number of on-site parking spaces from 144 spaces to 127 spaces. The "project site" is comprised of two parcels, Assessor's Parcel Numbers (APN) 060-042-260 and 060-042-240, totaling approximately 2.6 acres combined.

Synapse School is an existing private elementary and middle school serving grades kindergarten through 8th (K-8) located at 3375 Edison Way in North Fair Oaks. The existing school was established in 2010 under the County's determination that the school use was a compatible use in the applicable light industrial (M-1/Edison/NFO) Zoning District. The existing school operates in a 20,429 sq. ft. two-story building which is one of three freestanding buildings on parcel APN 060-042-260. Current student enrollment at the school is 220 students. The school year runs from August to June and operates during the weekday hours of 8:45 a.m. to 3:15 p.m. - 3:45 p.m.

The proposed project would allow Synapse School to expand into the 15,200 sq. ft. two-story building at 3355 Edison Way, formerly used as a child recreation center (UME), and a 18,036 sq. ft. two-story building at 3345 Edison Way, formerly used as a County storage facility, both located on the same parcel as the existing school building. The project would also allow expansion into a freestanding 17,338 sq. ft. two-story

building at 3425 Edison Way, located on the adjacent parcel to the east, APN 060-042-240. The building at 3425 Edison Way was formerly used for office space. All three additional buildings that Synapse School proposes to occupy are currently vacant. The entire project site is covered by impervious surface, except for a small fenced outdoor play yard along the rear property line, adjacent to building 3375 Edison Way. The proposed project will utilize all existing development covering the project site and does not propose to replace or expand any existing building footprints or paved areas. The expansion will increase the number of classrooms from 19 to 34 with remaining building square footages to be used for activities associated with the school, including administrative offices, lunch rooms, study areas, extended classroom/lab space, and multi-use common areas. Student capacity would be increased to a maximum of 260 students with the proposed expansion. Existing on-site parking consists of a main parking lot on APN 060-042-260 and two secondary parking lots running the length of the buildings at 3375 Edison Way and 3425 Edison Way. There are a total of 5 existing ingress/egress driveways onto the project site from Edison Way. Given the existing as-built conditions of the project site, there is minimal landscaping. However, trees exist along the perimeters of the project site. Exterior building façade changes are limited to upgrades necessary to comply with the current building codes.

The Synapse School will continue to serve grades K-8 with no additional grades proposed to be added by the project. The school proposes a modified daily schedule to mitigate for increased traffic generated by the school's expansion. See Section 16 of this Initial Study for discussion on traffic mitigation measures. The proposed daily schedule will involve staggering the daily start and end times by one hour based on grade levels with a group of grades starting at 7:45 a.m. and ending at 2:15 p.m. - 2:45 p.m., and a second group of grades remaining on the current daily schedule of 8:45 a.m. to 3:15 p.m. - 3:45 p.m. The two existing on-site pick-up/drop-off locations are intended to be maintained, one being at the entrance of the building at 3375 Edison Way and the other one at the rear side of the same building. Synapse School is proposing to utilize one of the secondary on-site parking lots, between the buildings at 3375 and 3425 Edison Way, as an additional outdoor recreation area for students after drop-off and before pick-up hours (as this secondary parking lot accommodates the rear pick-up/drop-off location previously mentioned).

FINDINGS AND BASIS FOR A NEGATIVE DECLARATION

The Current Planning Section has reviewed the initial study for the project and, based upon substantial evidence in the record, finds that:

1. The project will not adversely affect water or air quality or increase noise levels substantially.

2. The project will not have adverse impacts on the flora or fauna of the area.

3. The project will not degrade the aesthetic quality of the area.

4. The project will not have adverse impacts on traffic or land use.

5. In addition, the project will not:

   a. Create impacts which have the potential to degrade the quality of the environment.

   b. Create impacts which achieve short-term to the disadvantage of long-term environmental goals.

   c. Create impacts for a project which are individually limited, but cumulatively considerable.

   d. Create environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.

The County of San Mateo has, therefore, determined that the environmental impact of the project is insignificant.

MITIGATION MEASURES included in the project to avoid potentially significant effects:

Mitigation Measure 1: Pursuant to the Bay Area Air Quality Management District's CEQA Guidelines (May 2011), the following Air Quality Best Management Practices shall be implemented throughout the duration of construction-related activities on the project site:

a. Idling times shall be minimized either by shutting equipment or vehicles off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485, of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

b. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications.

c. Minimize the idling time of diesel powered construction equipment to two minutes.

Mitigation Measure 2: All staff members who drive to the school shall be required to park in the school's on-site parking lot.

Mitigation Measure 3: All 127 on-site parking spaces shall be appropriately striped. Striping marks shall be maintained in a clear and visible manner so that they are easily recognizable to drivers.

Mitigation Measure 4: Normal operation of the school shall not exceed 275 morning peak hour trips. The morning peak hour is defined as the highest one-hour period between 7:00 a.m. - 9:00 a.m. during which the maximum traffic generated by the school occurs.

The applicant shall retain a third-party traffic consultant to count the trip generation of the school, which would include counting the school driveways plus counting any school-related traffic that is dropping off students along Edison Way or any of its cross-streets. The third-party consultant will conduct the counts over three (3) weekdays

(a Tuesday, Wednesday, and/or Thursday) in October and March of each school year, excluding scheduled school holidays. The trip count shall be the average of the three weekday counts. Concurrent with the trip counts, the third-party traffic consultant shall conduct a queuing analysis for on-street queuing due to driveway back-up at the designated on-site pick-up/drop-off points for the school. The data from the traffic counts shall be submitted to the County of San Mateo Public Works Roadway Traffic Services Division and the Current Planning Section of the County of San Mateo Planning and Building Department in a report for review and acceptance. The County may also choose to conduct its own monitoring if desired.

If the monitoring shows that the trip cap is exceeded, then the applicant shall have 30 days to prepare and submit a Transportation Demand Management (TDM) Program that incorporates measures to reduce the number of trips below the trip cap, and shall have an additional 30 days to implement the TDM Program in order to bring the site into compliance with the trip cap. Measures included in the TDM Program may include, but shall not be limited to, staggering start times, adding shuttle buses, initiating a carpooling program, and offering staff incentives to take alternative transportation. A subsequent monitoring will be conducted by the County 30 days following implementation of the TDM Program. If the subsequent monitoring indicates that the site still exceeds the trip cap, then the applicant may need to resort to reducing student enrollment accordingly to bring the site into compliance with the trip cap. Non-compliance evidenced by the subsequent monitoring may also result in review of the use permit by the Planning Commission.

Mitigation Measure 5: The applicant shall provide, upon request by the County, shuttle bus logs for all shuttle buses serving the school. The shuttle logs shall show the number of students dropped off at the school site each day.

Mitigation Measure 6: The maximum student enrollment shall not exceed 260 students. The applicant shall submit an annual report stating the total number of students and staff attending or working at the school prior to the beginning of each school year. Any increase in student enrollment beyond 260 students shall require an amendment to the Non-Conforming Use Permit and shall require an updated Traffic Impact Analysis.

Mitigation Measure 7: The applicant shall install a left-turn refuge lane on Marsh Road, within the current roadway width, to improve the intersection operation.

Mitigation Measure 8: The school shall stagger the start and end times by one hour with 85 students starting one hour earlier during the 7:00 a.m. - 8:00 a.m. hour and ending during the 2:00 p.m. - 3:00 p.m. hour to reduce AM peak-hour trips.

Mitigation Measure 9: The school shall provide designated staff or parents to assist in the on-site management of drop-off and pick-up operations.

RESPONSIBLE AGENCY CONSULTATION

None

INITIAL STUDY

The San Mateo County Current Planning Section has reviewed the Environmental Evaluation of this project and has found that the probable environmental impacts are insignificant. A copy of the initial study is attached.

REVIEW PERIOD: March 30, 2017 through April 18, 2017

All comments regarding the correctness, completeness, or adequacy of this Negative Declaration must be received by the County Planning and Building Department, 455 County Center, Second Floor, Redwood City, no later than **5:00 p.m., April 18, 2017**.

CONTACT PERSON

Summer Burlison
Project Planner, 650/363-363-1815
sburlison@smcgov.org

Summer Burlison, Project Planner

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County of San Mateo
Planning and Building Department

INITIAL STUDY
ENVIRONMENTAL EVALUATION CHECKLIST
(To Be Completed by Planning Department)

1. **Project Title:** Synapse School Expansion

2. **County File Number:** PLN 2014-00295

3. **Lead Agency Name and Address:** County of San Mateo Planning and Building Department, 455 County Center, 2nd Floor, Redwood City, CA 94063

4. **Contact Person and Phone Number:** Summer Burlison, Project Planner; 650/363-1815 or sburlison@smcgov.org

5. **Project Location:** 3375, 3355, 3345, and 3425 Edison Way, North Fair Oaks (existing school operates at 3375 Edison Way)

6. **Assessor's Parcel Numbers and Sizes of Parcel:**

Assessor's Parcel Number	Parcel Size (approx.)	Address
060-042-260	1.98 acres	3375, 3355, 3345 Edison Way
060-042-240	0.64 acres	3425 Edison Way

7. **Project Sponsor's Name and Address:** Synapse School, Attention: Karen McCown, 3375 Edison Way, Redwood City, CA 94063

8. **General Plan Designation:** Industrial Mixed Use

9. **Zoning:** Light Industrial/Edison/North Fair Oaks (M-1/Edison/NFO)

10. **Description of the Project:** The applicant is seeking a Non-Conforming Use Permit to expand the existing Synapse School facility located at 3375 Edison Way into the existing neighboring buildings at 3355, 3345, and 3425 Edison Way in the unincorporated area of North Fair Oaks. The proposed project includes the request for an off-street parking exception as part of the Non-Conforming Use Permit to reduce the number of on-site parking spaces from 144 spaces to 127 spaces. The "project site" is comprised of two parcels, Assessor's Parcel Numbers (APN) 060-042-260 and 060-042-240, totaling approximately 2.6 acres combined. See Section 6 above for corresponding addresses.

    Synapse School is an existing private elementary and middle school serving grades kindergarten through 8th (K-8) located at 3375 Edison Way in North Fair Oaks. The existing school was established in 2010 under the County's determination that the school use was a compatible use in the applicable light industrial (M-1/Edison/NFO) Zoning District. The existing school operates in a 20,429 sq. ft. two-story building which is one of three freestanding buildings on parcel APN 060-042-260. Current student enrollment at the school is

220 students. The school year runs from August to June and operates during the weekday hours of 8:45 a.m. to 3:15 p.m. - 3:45 p.m.

The proposed project would allow Synapse School to expand into the 15,200 sq. ft. two-story building at 3355 Edison Way, formerly used as a child recreation center (UME), and the 18,036 sq. ft. two-story building at 3345 Edison Way, formerly used as a County storage facility, both located on the same parcel as the existing school building. The project would also allow expansion into a freestanding 17,338 sq. ft. two-story building at 3425 Edison Way, located on the adjacent parcel to the east, APN 060-042-240. The building at 3425 Edison Way was formerly used for office space. All three additional buildings that Synapse proposes to occupy are currently vacant. The entire project site is covered by impervious surface, except for a small fenced outdoor play yard along the rear property line, adjacent to the building at 3375 Edison Way. The proposed project will utilize all existing development covering the project site and does not propose to replace or expand any existing building footprints or paved areas. The expansion will increase the number of classrooms from 19 to 34 with remaining building square footages to be used for activities associated with the school, including administrative offices, lunch rooms, study areas, extended classroom/lab space, and multi-use common areas. Student capacity would be increased to a maximum of 260 students with the proposed expansion. Existing on-site parking consists of a main parking lot on APN 060-042-260 and two secondary parking lots running the length of buildings 3375 Edison Way and 3425 Edison Way. There are a total of 5 existing ingress/egress driveways onto the project site from Edison Way. Given the existing as-built conditions of the project site, there is minimal landscaping. However, trees exist along the perimeters of the project site. Exterior building façade changes are limited to upgrades necessary to comply with current building codes.

The Synapse School will continue to serve grades K-8 with no additional grades proposed to be added by the project. The school proposes a modified daily schedule to mitigate for increased traffic generated by the school's expansion. See Section 16 of this Initial Study for discussion on traffic mitigation measures. The proposed daily schedule will involve staggering the daily start and end times by one hour based on grade levels with a group of grades starting at 7:45 a.m. and ending at 2:15 p.m. - 2:45 p.m. and a second group of grades remaining on the current daily schedule of 8:45 a.m. to 3:15 p.m. - 3:45 p.m. The two existing on-site pick-up/drop-off locations are intended to be maintained, one being at the entrance of the building at 3375 Edison Way and the other at the rear side of the same building. Synapse School is proposing to utilize one of the secondary on-site parking lots, between the buildings at 3375 and 3425 Edison Way, as an additional outdoor recreation area for students after drop-off and before pick-up hours (as this secondary parking lot accommodates the rear pick-up/drop-off location previously mentioned).

11. **Surrounding Land Uses and Setting:** The project site is located within the densely developed urban community of North Fair Oaks. The project parcels are among a row of developed parcels zoned M-1/Edison/NFO (Light Industrial/Edison/North Fair Oaks). Surrounding uses include the Southern Pacific Railroad tracks to the adjacent north, with residential development beyond; the Riekes Center (for human enhancement) to the east, with office, research, and technology businesses beyond; a multi-tenant light industrial development to the west, with 5th Avenue and SportsHouse beyond; and single-family residences to the south, across Edison Way.

12. **Other Public Agencies Whose Approval is Required:** None

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or "Significant Unless Mitigated" as indicated by the checklist on the following pages.

	Aesthetics		Climate Change		Population/Housing
	Agricultural and Forest Resources	X	Hazards and Hazardous Materials		Public Services
X	Air Quality		Hydrology/Water Quality		Recreation
	Biological Resources	X	Land Use/Planning	X	Transportation/Traffic
	Cultural Resources		Mineral Resources	X	Utilities/Service Systems
	Geology/Soils		Noise		Mandatory Findings of Significance

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in 5. below, may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:

   a. Earlier Analysis Used. Identify and state where they are available for review.

b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

c. Mitigation Measures. For effects that are "Less Than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources. Sources used or individuals contacted should be cited in the discussion.

1. **AESTHETICS**. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
1.a. Have a significant adverse effect on a scenic vista, views from existing residential areas, public lands, water bodies, or roads?				X
Discussion: The project site is located in the flat, densely developed urban community of North Fair Oaks. The project would utilize existing development on the project parcels with minimal changes to the exterior building facades and site. Therefore, the project would not result in any view changes from the nearby residential area on the south side of Edison Way or adjacent roadway. Furthermore, there are no scenic vistas, public lands, or water bodies within view of the project site. **Source:** Project Location; Project Plans.				
1.b. Significantly damage or destroy scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
Discussion: The project site is located in the flat, densely developed urban community of North Fair Oaks and proposes to utilize existing development on the project parcels. The area does not contain any scenic resources for which the project would have the potential to damage or destroy. **Source:** Project Location; Project Plans.				

1.c.	Significantly degrade the existing visual character or quality of the site and its surroundings, including significant change in topography or ground surface relief features, and/or development on a ridgeline?				X
Discussion: The project site is located in the densely developed urban community of North Fair Oaks. The project parcels consist of flat, developed parcels that are part of the existing built community environment. The project proposes to utilize existing buildings and site improvements with minimal exterior changes. Therefore, the project would not cause degradation of the existing visual character or quality of the site or surrounding area. **Source:** Project Location; Project Plans.					
1.d.	Create a new source of significant light or glare that would adversely affect day or nighttime views in the area?			X	
Discussion: The project proposes to increase student enrollment and staffing, which would generate an increase in traffic associated with the school use. However, the increase in traffic would be incremental and primarily limited to weekday daytime hours along public roadways. Therefore, the project is not expected to introduce significant new sources of light or glare to the area that would affect day or nighttime views. Furthermore, the project proposes to utilize existing development on the project parcels with minimal exterior changes, thus, not to generate any new sources of significant light or glare. **Source:** Project Location; Project Plans.					
1.e.	Be adjacent to a designated Scenic Highway or within a State or County Scenic Corridor?				X
Discussion: According to the County of San Mateo General Plan Scenic Corridors Map, the project site is not adjacent to a designated Scenic Highway or within a State or County Scenic Corridor. **Source:** County of San Mateo General Plan, Scenic Corridors Map.					
1.f.	If within a Design Review District, conflict with applicable General Plan or Zoning Ordinance provisions?				X
Discussion: The project site is not located within a Design Review District, pursuant to the County of San Mateo Zoning Map. **Source:** County of San Mateo, Zoning Map.					
1.g.	Visually intrude into an area having natural scenic qualities?				X
Discussion: The project area does not contain any natural scenic qualities due to the site being located in the flat, densely urbanized community of North Fair Oaks. **Source:** Project Location.					

2.	**AGRICULTURAL AND FOREST RESOURCES**. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forestland, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
2.a.	For lands outside the Coastal Zone, convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
Discussion: The project site is located in a light industrial zoned district of the densely developed urban area and therefore does not involve farmland. **Source:** Project Location; County of San Mateo, Zoning Map.					
2.b.	Conflict with existing zoning for agricultural use, an existing Open Space Easement, or a Williamson Act contract?				X
Discussion: The project site is located in a light industrial zoned district of the densely developed urban area. The project parcels are not encumbered by an open space easement or Williamson Act contract. **Source:** Project Location; County of San Mateo, Zoning Map.					
2.c.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forestland to non-forest use?				X
Discussion: The project site is located in a light industrial zoned district of the densely developed urban area. Therefore, the project would not result in the conversion of Farmland or forestland. **Source:** Project Location; County of San Mateo, Zoning Map.					

2.d.	For lands within the Coastal Zone, convert or divide lands identified as Class I or Class II Agriculture Soils and Class III Soils rated good or very good for artichokes or Brussels sprouts?				X
Discussion: The project site is not located within the coastal zone. **Source:** Project Location; County of San Mateo, Zoning Map.					
2.e.	Result in damage to soil capability or loss of agricultural land?				X
Discussion: The project site is located in a light industrial zoned district and would utilize existing development on the project parcels. The project is not expected to require any temporary or long-term ground disturbing activities that could damage soils. **Source:** Project Plans.					
2.f.	Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? *Note to reader: This question seeks to address the economic impact of converting forestland to a non-timber harvesting use.*				X
Discussion: The project site is located in a light industrial zoned district of the densely developed urban area. Therefore, the project would not conflict with any existing zoning for forestland, timberland, or timberland zoned Timberland Production. **Source:** Project Location; County of San Mateo, Zoning Map.					

3.	**AIR QUALITY**. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
3.a.	Conflict with or obstruct implementation of the applicable air quality plan?			X	

Discussion: The Bay Area 2010 Clean Air Plan (CAP), developed by the Bay Area Air Quality Management District (BAAQMD), is the applicable air quality plan for San Mateo County. The CAP was created to improve Bay Area air quality and to protect public health and the climate by providing a control strategy for reducing ozone, particulate matter, air toxics, and greenhouse gases and established emission control measures to be adopted during between 2010 and 2020.

The project will not conflict with or obstruct the implementation of the BAAQMD's 2010 CAP as the project proposes minimal exterior physical or operational changes. Once completed, the expanded use will generate an increase in traffic; however, the California Air Resources Board (CARB) provides regulation over motor vehicle emissions in the State of California to ensure that operating emissions are minimized in the effort toward reaching attainment for Ozone, among other goals.

Source: Bay Area Air Quality Management District 2010 Clean Air Plan; Project Plans; California Air Resources Board.

3.b.	Violate any air quality standard or contribute significantly to an existing or projected air quality violation?		X		

Discussion: While the project involves minimal exterior building changes and no other site grading/work that would generate dust, the existing buildings will require interior renovation work to convert the building spaces from office, storage, and child recreation area (former uses) to uses associated with the proposed school use areas. During implementation of the project, air emissions will be generated from construction equipment and construction worker vehicles; however, use of construction equipment will be temporary and limited primarily to indoor use.

The BAAQMD has established thresholds of significance for construction emissions. As defined in the BAAQMD's 1999[1] CEQA Guidelines, the BAAQMD does not require quantification of construction emissions due to the number of variables that can impact the calculation of construction emissions. Instead, the BAAQMD emphasizes implementation of all feasible control measures to minimize emissions from construction activities. The BAAQMD provides a list of construction-related control measures that they have determined to significantly reduce construction-related air emissions to a less than significant level. These applicable control measures have been combined into Mitigation Measure 1 below:

Mitigation Measure 1: Pursuant to the Bay Area Air Quality Management District's CEQA Guidelines (May 2011), the following Air Quality Best Management Practices shall be implemented

[1] Thresholds of Significance are from the BAAQMD's 1999 CEQA Guidelines since the BAAQMD's last adopted 2010 Thresholds of Significance are currently under appeal by the BAAQMD with the California Supreme Court related to the BAAQMD's failure to comply with CEQA when adopting the Thresholds. Until this appeal is decided upon, the BAAQMD identifies that lead agencies may continue to rely on the Air District's 1999 Thresholds of Significance and make determinations regarding the significance of an individual project's air quality impacts based on the substantial evidence in the record for that project.

throughout the duration of construction-related activities on the project site:

a. Idling times shall be minimized either by shutting equipment or vehicles off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485, of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

b. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications.

c. Minimize the idling time of diesel powered construction equipment to two minutes.

Furthermore, continued operation and expansion of the school would not result in the violation of an air quality standard. The project proposes to utilize 50,574 sq. ft. of former office, storage, and child recreation space (divided up between three existing buildings) to expand the current school facility that currently operates in a 20,429 sq. ft. building. While the expanded school use will generate an increase in daily traffic (as mentioned in Section 3.a. above), vehicle emissions in California are regulated by the California Air Resources Board. Therefore, the project would not generate a significant increase in operational emission levels that would not violate any air quality standard.

Source: BAAQMD CEQA Guidelines, December 1999; BAAQMD CEQA Guidelines, May 2011; Project Plans; California Air Resources Board.

3.c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?		X		

Discussion: The Bay Area Air Basin is designated as non-attainment for Ozone, Particulate Matter (PM_{10}), and Particulate Matter - Fine ($PM_{2.5}$)[2], according to the BAAQMD. Therefore, any increase in these criteria pollutants is significant. Implementation of the project will generate temporary increases in these criteria pollutants due to construction vehicle emissions and use of construction equipment for renovation work proposed for the existing buildings. However, planning such increases would be temporary and localized. Mitigation Measure 1 in Section 3.b. will minimize increases in non-attainment criteria pollutants generated from construction-related emissions to a less than significant level.

Source: BAAQMD Air Quality Standards and Attainment Status, URL (2017); Project Plans.

3.d.	Expose sensitive receptors to significant pollutant concentrations, as defined by BAAQMD?		X		

[2] On January 9, 2013, the Environmental Protection Agency (EPA) issued a final rule determining that the Bay Area attains the 24-hour PM2.5 national standard. However, despite this action by the EPA, the Bay Area will continue to be designated as "non-attainment" until the Air District submits a "re-designation request" and a "maintenance plan" to the EPA, and the EPA approves the proposed re-designation.

Discussion: According to the BAAQMD, sensitive receptors are defined as facilities and land uses that include members of the population that are particularly sensitive to the effects of air pollutants (i.e., children, the elderly, and people with illnesses), such as schools, hospitals, and residential areas. By definition, the students attending the school are considered sensitive receptors, as are the residents in the neighborhood. However, construction-related activities associated with renovating the existing buildings for school use will occur during the summer months while school is out of session and will be primarily limited to interior work within the buildings. Furthermore, see staff's discussion in Section 3.b. above regarding increased construction-related traffic and the proposed mitigation to reduce construction-related air emissions to a less than significant level. **Source:** BAAQMD CEQA Guidelines, May 2011; Project Plans.				
3.e.	Create objectionable odors affecting a significant number of people?				X
Discussion: Implementation of the project requires the interior renovation of existing buildings for the proposed (expanded) school use with minimal exterior work to generate objectionable odors. Furthermore, the long-term operation of the school will not generate any odors that could affect significant numbers of people in the area. **Source:** Project Plans; Project Location.					
3.f.	Generate pollutants (hydrocarbon, thermal odor, dust or smoke particulates, radiation, etc.) that will violate existing standards of air quality on-site or in the surrounding area?		X		
Discussion: See staff's discussion in Section 3.b. and 3.c. above. **Source:** See referenced sources in Section 3.b. and 3.c. above.					

4.	**BIOLOGICAL RESOURCES**. Would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
4.a.	Have a significant adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X

Discussion: The project site is in a light industrial zoned district of the densely developed urban community of North Fair Oaks. The project parcels are surrounded by light industrial and residential development. Given the existing built-environment of the North Fair Oaks area and upon review of the County's General Plan Sensitive Habitats Map, there are no sensitive habitats on the project site or in the near vicinity. Furthermore, the project proposes to utilize the existing built conditions of the project parcels and will not modify the existing development footprints.

Source: County of San Mateo General Plan, Sensitive Habitats Map; Project Location.

4.b.	Have a significant adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X

Discussion: There are no riparian habitats or other sensitive natural communities located on the project site. See staff's discussion in Section 4.a. above.

Source: County of San Mateo General Plan, Sensitive Habitats Map; Project Location.

4.c.	Have a significant adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X

Discussion: There are no wetlands located on the project site or within the project vicinity as the project site is located in a densely urbanized community and the project parcels are entirely built-out.

Source: Project Location.

4.d.	Interfere significantly with the movement of any native resident or migratory fish or wildlife species or with established native resident migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X

Discussion: The project site is located in a densely developed urban community. Given the existing built-environment of the surrounding area, the project would not interfere with the movement of any fish or wildlife species or corridors, nor is the project in the vicinity of any wildlife nursery sites. Furthermore, see staff's discussion in Section 4.a. above.

Source: Project Location.

4.e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (including the County Heritage and Significant Tree Ordinances)?				X
Discussion: The project site is located in a densely urbanized area and contains no biological resources as the entire project parcels contain development. The project proposes to utilize existing development on the project parcels and does not propose the removal of any trees. **Source:** Project Location; Project Plans.					
4.f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, other approved local, regional, or State habitat conservation plan?				X
Discussion: There are no adopted Habitat Conservation Plans, Natural Conservation Community Plans, or other approved local, regional, or State habitat conservation plans for the project site or nearby vicinity. **Source:** California Department of Fish and Wildlife, Habitat Conservation Planning, California Regional Conservation Plans Map.					
4.g.	Be located inside or within 200 feet of a marine or wildlife reserve?				X
Discussion: The project is not located inside or within 200 feet of a marine or wildlife reserve. **Source:** U.S. Fish and Wildlife Services, National Wildlife Refuge System Locator.					
4.h.	Result in loss of oak woodlands or other non-timber woodlands?				X
Discussion: The project site does not support oak woodlands or other non-timber woodlands as the project site is located in a densely developed urban community. **Source:** Project Location; Project Plans.					

5. CULTURAL RESOURCES. Would the project:				
	Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
5.a. Cause a significant adverse change in the significance of a historical resource as defined in CEQA Section 15064.5?				X
Discussion: The project will not cause an adverse change in any historical resource as the project proposes to utilize existing on-site development that was constructed within the last 25 years. Furthermore, the project sites and existing buildings are not listed on any local or state historical registers. **Source:** Project Location; Project Plans; San Mateo County General Plan, Overview Background and Issues, Chapter 5: Historical and Archaeological Resources; California State Parks Office of Historic Preservation.				
5.b. Cause a significant adverse change in the significance of an archaeological resource pursuant to CEQA Section 15064.5?				X
Discussion: The project will not cause an adverse change in any archaeological resource as the project proposes to utilize existing on-site development that was constructed within the last 25 years. Furthermore, no new ground disturbance is necessary to implement or operate the proposed project. **Source:** Project Location; Project Plans; San Mateo County General Plan, Overview Background and Issues, Chapter 5: Historical and Archaeological Resources.				
5.c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
Discussion: The project parcels are entirely developed urban lots in a densely urbanized area. The project does not include any ground disturbing activities that would have the potential to destroy a paleontological resource or site or unique geological feature. **Source:** Project Location; Project Plans.				
5.d. Disturb any human remains, including those interred outside of formal cemeteries?				X
Discussion: The project parcels are entirely developed urban lots in a densely urbanized area. The project does not include any ground disturbing activities that would have the potential to uncover any human remains. **Source:** Project Location; Project Plans.				

6.	**GEOLOGY AND SOILS**. Would the project:				
		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
6.a.	Expose people or structures to potential significant adverse effects, including the risk of loss, injury, or death involving the following, or create a situation that results in:				
	i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other significant evidence of a known fault? *Note: Refer to Division of Mines and Geology Special Publication 42 and the County Geotechnical Hazards Synthesis Map.*			X	

Discussion: The San Andreas Fault system is the nearest significant fault to the project site. An earthquake on this fault system would have the potential to generate intense seismic shaking in the entire San Francisco Bay region including at the project site. According to review of the State Division of Mines and Geology Special Studies Zones Map, the project site is not located in or near a mapped Alquist-Priolo Earthquake Fault Zone or special study area where fault rupture is likely to occur. The project proposes to continue use of a K-8 school and allow for expansion of the school into three (3) existing neighboring buildings that were formerly used for office, storage, and child recreation. Since the project is considered to change the occupancy classification of the existing buildings, seismic upgrades will be required in compliance with the California Building Code. Furthermore, the project itself is not expected to generate rupture of an earthquake fault. Therefore, no further mitigation is required beyond compliance with the California Building Code.

Source: State of California, Division of Mines and Geology, Special Studies Zones Map, Palo Alto Quadrangle, July 1, 1974; Project Plans.

ii. Strong seismic ground shaking?			X	

Discussion: See staff's discussion in Section 6.a.i. above.

Source: See referenced sources in Section 6.a.i. above.

iii. Seismic-related ground failure, including liquefaction and differential settling?			X	

Discussion: According to a geotechnical report of the project site prepared by BAGG Engineers, the project site is located in a liquefaction hazard zone where the effects of liquefaction could result in up to 1.2 inches of ground settlement. Furthermore, BAGG Engineers estimates differential settlements to be approximately 2/3 the total settlement between columns during a design level seismic event. That being said, the geotechnical report identifies that the structural engineer should

confirm that the existing foundations and building structures can accommodate such movements. All proposed renovation work is required to obtain a building permit. The building permit plan check process will ensure that the structural engineer has accounted for the identified differential settlement associated with the project site. **Source:** Geotechnical Engineering Investigation, BAGG Engineers, April 2016.				
iv. Landslides?				X
Discussion: The project parcels have been designated as areas with Landslide Susceptibility I based on information gathered from the U.S. Geological Survey. Such areas have the lowest susceptibility to soil instability and a decreased potential for occurrences of landslides. Furthermore, the project parcels are in a flat, urbanized area where landslides are not a concern. **Source:** United States Geological Survey, Landslide Susceptibility Map (for San Mateo County); Project Location.				
v. Coastal cliff/bluff instability or erosion? *Note to reader: This question is looking at instability under current conditions. Future, potential instability is looked at in Section 7 (Climate Change).*				X
Discussion: The project site is not located on a coastal cliff or bluff. **Source:** Project Location.				
6.b. Result in significant soil erosion or the loss of topsoil?				X
Discussion: The project proposes to utilize existing development on the project parcels. No ground disturbing construction-related activities are proposed that would result in soil erosion or the loss of topsoil. **Source:** Project Plans.				
6.c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, severe erosion, liquefaction or collapse?			X	
Discussion: Despite the project parcels being in a flat, developed area, the project site consists of expansive soils and is in a liquefaction hazard zone making the project site subject to differential settlement as discussed in Section 6.a.iii. All proposed renovation work is required to obtain a building permit. The building permit plan check process will ensure that the existing buildings are in compliance with the recommendations of the applicable geotechnical report and the California Building Codes relative to expansive soils and liquefaction such that the project is not impacted by, or result in impacts from, expansive soils or liquefaction. **Source:** Geotechnical Engineering Investigation, BAGG Engineers, April 2016.				

6.d.	Be located on expansive soil, as noted in the 2010 California Building Code, creating significant risks to life or property?			X	

Discussion: The County of San Mateo is in a geological area that contains expansive soils such as clay loam and alluvial fans. Particularly, the project site consists of clay and sandy soils. All proposed renovation work is required to obtain a building permit. The building permit plan check process will ensure that the existing buildings are modified, as necessary, to resist the effects of expansive soils.

Source: Geotechnical Engineering Investigation, BAGG Engineers, April 2016.

6.e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X

Discussion: The project parcels will continue to be served by the Fair Oaks Sewer Maintenance District, managed by the County of San Mateo Department of Public Works (DPW). Therefore, the project does not require the use of a septic system or alternative wastewater disposal system. Furthermore, the County Department of Public Works has provided conditional approval of the project.

Source: Project Location; County of San Mateo Department of Public Works, Fair Oaks Sewer Maintenance District.

7.	**CLIMATE CHANGE**. Would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
7.a.	Generate greenhouse gas (GHG) emissions (including methane), either directly or indirectly, that may have a significant impact on the environment?			X	

Discussion: The project will generate a temporary increase in GHG emissions from construction vehicles and equipment. However, any such emissions would be limited to a short duration of time during construction. Construction vehicles are subject to California Air Resources Board emission standards, and the construction equipment will primarily be used indoors for the renovation of existing buildings. Furthermore, Mitigation Measure 1 in Section 3.b. will help to further minimize any temporary increases in GHG emissions during construction. Furthermore, as discussed in Section 3.a. and 3.b. above, operation of the school will generate an increase in traffic; however, the California Air Resources Board (CARB) provides regulation over motor vehicle emissions in the State of California to ensure that operating emissions are minimized.

Source: Bay Area Air Quality Management District 2010 Clean Air Plan; Project Plans; California Air Resources Board.

7.b.	Conflict with an applicable plan (including a local climate action plan), policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X

Discussion: The County of San Mateo's adopted Energy Efficiency Climate Action Plan (EECAP) provides strategies for reducing GHG emissions to eleven areas of focus including Residential Energy Efficiency, Commercial and Industrial Energy Efficiency, Green Building Ordinance, Renewable Energy, Transportation, Alternative Fuels, Waste Diversion, Water Efficiency, Sustainable Agriculture Practices, Off-Road Technology, and Sequestration. Of these categories, the project includes reuse of the existing buildings by renovating them from their former uses as office, storage, and child recreation to uses in support of the school's expansion (i.e., classrooms, lab space, administrative offices). Building renovations will require to be in compliance with mandatory California Green Building Standards and California Energy Codes. Additionally, the project proposes to continue and expand the use of school shuttles for students and staff to reduce vehicle miles traveled and to continue encouraging carpooling. The reduced number of on-site parking spaces (127) relative to the number of parking spaces required (144), pursuant to the County's Parking Regulations (*Chapter 3 of the County's Zoning Regulations*), and the limited availability of street parking along Edison Way during business hours indirectly encourage students and staff to use alternative modes of transportation, such as school shuttles or carpool. Therefore, the project will not conflict with applicable plans adopted for the purpose of reducing GHG emissions.

Source: County of San Mateo Energy Efficiency Climate Action Plan; Project Plans.

7.c.	Result in the loss of forestland or conversion of forestland to non-forest use, such that it would release significant amounts of GHG emissions, or significantly reduce GHG sequestering?				X

Discussion: The project site is located in a light industrial zoned district of the densely developed North Fair Oaks community and therefore will not have any impact on forestlands.

Source: Project Location.

7.d.	Expose new or existing structures and/or infrastructure (e.g., leach fields) to accelerated coastal cliff/bluff erosion due to rising sea levels?				X

Discussion: The project site is not located near a coastal cliff or bluff. Furthermore, based on bayshore inundation maps prepared as part of the County of San Mateo Sea Change Program that considers the potential for both shoreline overtopping and sea level rise, the project site will not be affected by, or have any impact on, sea level rise.

Source: Project Location; County of San Mateo Sea Change, Bayshore Inundation Maps.

7.e.	Expose people or structures to a significant risk of loss, injury or death involving sea level rise?				X
Discussion: See staff's discussion in Section 7.d. above. **Source:** See referenced sources in Section 7.d. above.					
7.f.	Place structures within an anticipated 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
Discussion: The project site is not located within a 100-year flood hazard area. **Source:** Federal Emergency Management Agency, Flood Insurance Rate Map, Community Panel 06081C0302E, effective October 16, 2012.					
7.g.	Place within an anticipated 100-year flood hazard area structures that would impede or redirect flood flows?				X
Discussion: See staff's discussion in Section 7.f. above. **Source:** See referenced source in Section 7.f. above.					

8.	**HAZARDS AND HAZARDOUS MATERIALS**. Would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
8.a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (e.g., pesticides, herbicides, other toxic substances, or radioactive material)?			X	
Discussion: The project proposes to renovate existing buildings that were formerly used for office, storage, and child recreation to accommodate expansion of the existing school use located at 3375 Edison Way. The buildings that will be utilized for the school's expansion were constructed in the early 1990s, when friable asbestos products and lead-based paint were not commonly used in construction. Therefore, the proposed building renovations are not expected to involve the transport, use, or dispose of hazardous materials. It is expected that the school would use and store cleaning and maintenance supplies for the facilities; however, any such supplies would be limited in quantity and are expected to be commonly used supplies for general cleaning and maintenance purposes. Therefore, the project's long-term operation would not result in the introduction of significantly hazardous materials.				

Source: Project Plans; County of San Mateo Permit Records.					
8.b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X
Discussion: See staff's discussion in Section 8.a. above and Section 8.d. below. **Source:** See referenced sources in Section 8.a. above and Section 8.d. below.					
8.c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
Discussion: Despite the project site's existing and proposed use as a school, the school will not emit any hazardous emissions. See staff's discussion in Section 8.a. above. **Source:** Project Plans.					
8.d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
Discussion: The project site is not considered a hazardous material site, according to the latest Hazardous Waste and Substance Site List posted by the California Department of Toxic Substances Control (mandated by Government Code Section 65962.5). Furthermore, according to review of the State Water Resources Control Board GeoTracker which tracks regulatory data and databases for Leaking Underground Storage Tanks (LUST) cleanup sites, Cleanup Program Sites (formerly known as Spills, Leaks, Investigations, and Cleanups sites), and Land Disposal Sites among other types of potentially hazard sites, the nearest open cleanup site (for soil and groundwater contamination) is over 1,000 ft. to the east of the project parcels. Therefore, the project will not be located on a hazardous materials site. **Source:** California Department of Toxic Substances Control, Hazardous Waste and Substances Site List; State Water Resources Control Board, GeoTracker.					
8.e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area?				X
Discussion: The project site is not located within an airport land use plan or within 2 miles of a public airport. **Source:** Project Location.					

8.f.	For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area?				X
Discussion: The project site is not located within the vicinity of any known private airstrip. **Source:** Project Location.					
8.g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		X		
Discussion: The project consists of the continued operation of an existing K-8 private school, along with the school's expansion into additional existing buildings on private property. The project does not propose any changes to the footprint of the existing development. While the proposed school expansion will result in an increase in traffic as student enrollment and staffing increases, a traffic impact analysis for the project has been completed and mitigation measures recommended to reduce any traffic-related impacts to a less than significant level for the area, thus, reducing any physical interferences with emergency response or evacuation plans for the area to a less than significant level. See Section 16 for discussion of traffic impacts and recommended mitigation measures. **Source:** Project Plans; Final Traffic Impact Analysis for Synapse School Expansion, prepared by Hexagon Transportation Consultants, Inc., dated January 19, 2016.					
8.h.	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X
Discussion: The project site is in the densely urbanized area of North Fair Oaks and therefore not in close proximity to any wildlands. **Source:** Project Location.					
8.i.	Place housing within an existing 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
Discussion: The project area is not located within a 100-year flood hazard area and does not propose any housing. **Source:** County of San Mateo General Plan, Natural Hazards Map; Federal Emergency Management Agency, Flood Insurance Rate Map, Community Panel 06081C0302E, effective October 16, 2012.					

8.j.	Place within an existing 100-year flood hazard area structures that would impede or redirect flood flows?				X
Discussion: See staff's discussion in Section 8.i. above. **Source:** See referenced sources in Section 8.i. above.					
8.k.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
Discussion: According to FEMA flood maps and the County's General Plan Natural Hazards Map, the project parcels are not within an area that could be impacted by flooding as a result of the failure of a dam or levee. **Source:** Project Location; County of San Mateo General Plan, Natural Hazards Map; Federal Emergency Management Agency, Flood Insurance Rate Map, Community Panel 06081C0302E, effective October 16, 2012.					
8.l.	Inundation by seiche, tsunami, or mudflow?				X
Discussion: According to the San Mateo County General Plan Natural Hazards Map, the project parcels are not located in a tsunami or seiche inundation area. Furthermore, the project parcels are located in a flat, densely developed urban area where mudflows or landslides are not considered hazards of concern. **Source:** San Mateo County General Plan, Natural Hazards Map; Project Location.					

9.	**HYDROLOGY AND WATER QUALITY**. Would the project:				
		Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
9.a.	Violate any water quality standards or waste discharge requirements (consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical stormwater pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash))?				X

Discussion: The project does not introduce any new impervious surface areas to the project parcels. Therefore, the project would not violate any water quality standards or discharge requirements of the County's Drainage Policy or Municipal Regional Stormwater Permit as there will be no changes to the existing footprints of development or to any existing drainage patterns or facilities. **Source:** Project Plans; County of San Mateo Drainage Policy; County of San Mateo Municipal Regional Stormwater Permit.					
9.b.	Significantly deplete groundwater supplies or interfere significantly with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				X
Discussion: The project parcels are served by public water service from the California Water Service Company. The project proposes no changes to the existing developed parcels that would have any impact on groundwater. **Source:** Project Plans; Project Location.					
9.c.	Significantly alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in significant erosion or siltation on- or off-site?				X
Discussion: The project proposes no alterations to the existing drainage pattern of the site or area as the existing project parcels are completely covered with impervious surface and no changes to the built site conditions are proposed. **Source:** Project Plans.					
9.d.	Significantly alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or significantly increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?				X
Discussion: See staff's discussion in Section 9.c. above. **Source:** See referenced source in Section 9.c. above.					

9.e.	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide significant additional sources of polluted runoff?				X
Discussion: The project proposes no changes to the existing development conditions of the site or to the existing drainage patterns. **Source:** Project Plans.					
9.f.	Significantly degrade surface or ground-water water quality?				X
Discussion: The project proposed no changes to existing drainage patterns on the project site or in the vicinity. Furthermore, the project will utilize existing development which will continue to be served by the California Water Service Company. Therefore, the project will not have any impact on groundwater water quality. **Source:** Project Plans.					
9.g.	Result in increased impervious surfaces and associated increased runoff?				X
Discussion: See staff's discussions in Section 9.a. and 9.c. above. **Source:** See referenced sources in Section 9.a. and 9.c. above.					

10.	**LAND USE AND PLANNING**. Would the project:				
		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
10.a.	Physically divide an established community?				X
Discussion: The project site is located along a row of developed parcels zoned light industrial where existing uses include office, research, warehouse, indoor sports, and student education and enrichment. Furthermore, the project proposes to utilize existing development, part of which is already being used as a school facility. Therefore, the project will not physically divide an established community. **Source:** Project Plans; Project Location.					

10.b.	Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?		X		

Discussion: According to the North Fair Oaks (NFO) Community Plan, the land use designation for the project parcels is Industrial Mixed Use which allows a medium to high density of land uses, primarily focused on industrial uses while allowing a mix of secondary commercial, public, and institutional uses (such as schools/training and sports facilities). Zoning for the project parcels is Light Industrial/Edison/North Fair Oaks (M-1/Edison/NFO) which currently does not allow for primary or middle school uses. Since adoption of the NFO Community Plan in 2011, the County has been completing a phased rezoning of the community's neighborhoods in order to provide consistency between the more recent land use designations identified in the NFO Community Plan and the older zoning designations. The Edison Way corridor zoning update, which includes the project parcels, is expected to commence in 2018 and is expected to accommodate school uses. Until such time, the existing Synapse School facility is considered a non-conforming use[3] as it was permitted by the County to locate at its current location, 3375 Edison Way, in 2010 under a determination that the school use was compatible with the land uses allowed in the M-1/Edison/NFO Zoning District.

Pursuant to Chapter 4 of the County Zoning Regulations pertaining to Zoning Non-Conformities, the expansion of a non-conforming use is subject to a non-conforming use permit. In order to grant a non-conforming use permit, the applicable decision making body (i.e., Planning Commission) must make the finding that the establishment, maintenance and/or conducting of the use will not, under the circumstances of the particular case, result in a significant adverse impact to coastal resources, or be detrimental to the public welfare or injurious to property or improvements in said neighborhood. The proposed project includes the request for a non-conforming use permit. Therefore, no mitigation is required.

The project also includes the request for a reduction in off-street parking spaces as part of the non-conforming use permit. Based on the application of off-street parking standards stipulated in Chapter 3 of the County Zoning Regulations for the four buildings that will be used to accommodate the expanded school, the number of required off-street parking spaces is 144. The existing developed project parcels provide 127 off-street parking spaces, thereby generating a deficiency of 17 parking spaces. After implementation of the proposed project, the school will remain K-8, thus not generating any student demand for parking spaces. Furthermore, at full student capacity (260 students), the school expects to have a total staff of 58, including 47 full-time staff and 11 part-time staff. A Memorandum to the Traffic Impact Analysis, dated July 22, 2016 and prepared by Hexagon Transportation Consultants, Inc., estimated that approximately 10 staff members would participate in the school shuttle program, thus, potentially reducing staff's parking demand. Nonetheless, at full staff, a total of 58 of the 127 provided parking spaces would be filled; thus, leaving 69 parking spaces available on-site for visitors or other uses. Given that the school serves young children, K-8, parking demand temporarily increases during morning drop-off and afternoon pick-up. Otherwise, the school is not expected to generate much parking demand beyond staff and occasional visitors (including parents). Therefore, Synapse is proposing to use the parking area between the 3425 Edison and 3375 Edison buildings for outdoor activities after morning drop-off and before afternoon pick-up. In order to ensure that sufficient parking is provided to serve the school,

[3] A non-conforming use, pursuant to Section 6132(14) of the County of San Mateo Zoning Regulations, is defined as any legal land use that does not conform with the uses permitted by the zoning regulations currently in effect.

the following mitigation measures are proposed: **Mitigation Measure 2:** All staff members who drive to the school shall be required to park in the school's on-site parking lot. **Mitigation Measure 3:** All 127 on-site parking spaces shall be appropriately striped. Striping marks shall be maintained in a clear and visible manner so that they are easily recognizable to drivers. **Source:** North Fair Oaks Community Plan; County of San Mateo Zoning Regulations and Map; County of San Mateo Permit Records; Memorandum to the Traffic Impact Analysis, prepared by Hexagon Transportation Consultants, Inc., dated July 22, 2016; Project Plans.				
10.c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?				X
Discussion: The project would not conflict with any habitat conservation plan or natural community conservation plan. **Source:** California Department of Fish and Wildlife, Habitat Conservation Planning, California Regional Conservation Plans Map.					
10.d.	Result in the congregating of more than 50 people on a regular basis?		X		
Discussion: The project will result in the congregation of more than 50 people on a regular basis during the school year (August through June) as the project is proposed to increase student enrollment to 260; current student enrollment is approximately 220. The land use designation for the project parcels is Industrial Mixed Use which allows a medium to high density of land uses, including institutional uses such as schools/training and sports facilities. The intensity of use for the K-8 school has the potential to generate parking and traffic impacts to the area. See staff's discussion in Section 10.b. and Section 16. which includes further discussion on the potential impacts and the recommended mitigation measures related to increased parking and traffic associated with the project. **Source:** Project Plans; See referenced sources in Section 10.b. and Section 16.				
10.e.	Result in the introduction of activities not currently found within the community?				X
Discussion: The project involves an expansion of the existing K-8 school facility located at 3375 Edison Way into the neighboring buildings at 3355, 3345, and 3425 Edison Way. Therefore, the project does not introduce activities not currently found within the community. **Source:** Project Plans.					
10.f.	Serve to encourage off-site development of presently undeveloped areas or increase development intensity of already developed areas (examples include the introduction of new or expanded public utilities, new industry, commercial facilities or recreation activities)?				X

Discussion: The project involves the expansion of an existing private K-8 school. The school is located in a densely urbanized community and serves a relatively small population of the overall regional area. The project includes converting existing buildings formerly used for storage, office, and child recreation into additional school facility uses. Thus, the project will not encourage off-site development of any undeveloped areas or increase development intensities of already developed areas. **Source:** Project Location; Project Plans.				
10.g. Create a significant new demand for housing?				X
Discussion: The project would not create a significant new demand for housing as the project involves the expansion of a private K-8 school that serves a relatively small population of the overall existing regional area. **Source:** Project Location; Project Plans.				

11. MINERAL RESOURCES. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
11.a. Result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State?				X
Discussion: The project parcel does not contain any known mineral resources, according to the Mineral Resources Map of the County's General Plan. **Source:** San Mateo County General Plan, Mineral Resources Map.				
11.b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X
Discussion: See staff's discussion in Section 11.a. above. **Source:** See referenced source in Section 11.a. above.				

12. NOISE. Would the project result in:				
	Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
12.a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	

Discussion: The project will generate short-term noise associated with construction-related activities; however, such noises will be temporary, where volume and hours are regulated by Section 4.88.360 (*Exemptions*) of the County Noise Ordinance.

The County's Noise Ordinance prohibits the generation of exterior noise levels at receiving residences from exceeding 55 dBA in any cumulative 30-minute period of any daytime hour (7:00 a.m. to 10:00 p.m.) to 70 dBA in any 1-minute period of any daytime hour. Additionally, the project parcels are located in a designated Noise Impact Area, defined as those areas experiencing noise levels of 60 Community Noise Equivalent Level (CNEL) or greater, according to the County of San Mateo General Plan, Community Noise Map.

The majority of school activities will continue to be conducted indoors and therefore, not result in noise levels in excess of any established noise standards. The school does provide on-site outdoor recreational areas; however, such existing areas are located at the rear of the project site, adjacent to the railroad tracks, or within the confines of areas gated from the Edison Way roadway and residential properties on the opposite side of Edison Way. Existing outdoor recreation areas will continue to be utilized; however, given the nature of the school use and schedule, outdoor activities that could generate increased noise levels in the area would be limited to short periods of time during weekday daytime hours when residents are typically at work. Additionally, the adjacent Southern Pacific Railroad tracks (to the north) and Edison Way (to the south) provide buffers to the residential neighborhoods beyond, while institutional/industrial land uses are located on the adjacent east and west sides of the project parcels. Therefore, the project is not expected to generate noise or expose persons to noise in excess of any established standards.

Source: County of San Mateo General Plan, Community Noise Map; County of San Mateo Noise Ordinance; Project Plans.

12.b. Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?			X	

Discussion: Exterior construction work associated with the implementation of the project will be limited as the project proposes to utilize existing buildings and site improvements. However, construction activities may generate ground-borne vibration or noise levels, but any such vibration or levels would be temporary and localized to the project site so as to not result in a significant impact to persons or the area.

Source: Project Plans.

12.c. A significant permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
Discussion: The project is not expected to cause a significant permanent increase in ambient noise levels in the area as a majority of the school activities occurs indoors and the project proposes a minimal increase in student capacity (40 students) from the school's current enrollment capacity. Furthermore, see staff's discussion in Section 12.a. above. **Source:** Project Plans; See referenced sources in Section 12.a. above.				
12.d. A significant temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
Discussion: Throughout the duration of construction, a temporary increase in ambient noise levels associated with an active construction site would be generated. However, such noise levels would be limited to construction hours and level standards regulated by the County's Noise Ordinance for construction. Therefore, any temporary increases will be less than significant. **Source:** County of San Mateo Noise Ordinance.				
12.e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, exposure to people residing or working in the project area to excessive noise levels?				X
Discussion: The project is not located within an area regulated by an airport land use plan or within 2 miles of a public airport. **Source:** Project Location.				
12.f. For a project within the vicinity of a private airstrip, exposure to people residing or working in the project area to excessive noise levels?				X
Discussion: The project is not located within the vicinity of any known private airstrip. **Source:** Project Location.				

13.	**POPULATION AND HOUSING**. Would the project:				
		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
13.a.	Induce significant population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
Discussion: The project involves the expansion of an existing private K-8 school. The school is located in a densely urbanized community, will utilize existing development, and serves a relatively small population of the overall regional area. Current student enrollment is 220 students and the project proposes to increase enrollment to 260 students. Thus, the project will not induce significant population growth.					
Source: Project Plans.					
13.b.	Displace existing housing **(including low- or moderate-income housing)**, in an area that is substantially deficient in housing, necessitating the construction of replacement housing elsewhere?				X
Discussion: The project proposes to utilize existing office/industrial developed parcels to accommodate the expansion of an existing K-8 private school. Therefore, no housing will be displaced by the project.					
Source: Project Location; Project Plans.					

14.	**PUBLIC SERVICES**. Would the project result in significant adverse physical impacts associated with the provision of new or physically altered government facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
		Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
14.a.	Fire protection?				X
14.b.	Police protection?				X
14.c.	Schools?				X
14.d.	Parks?				X

14.e. Other public facilities or utilities (e.g., hospitals, or electrical/natural gas supply systems)?				X

Discussion: The project proposes to expand an existing K-8 private school into existing neighboring buildings and will not involve any new or physically altered government facilities or increase the need for new or physically altered government facilities.

Source: Project Plans.

15. RECREATION. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
15.a. Increase the use of existing neighborhood or regional parks or other recreational facilities such that significant physical deterioration of the facility would occur or be accelerated?				X

Discussion: The project will provide on-site (indoor and outdoor) recreational areas for students and therefore will not result in an increase in use of any neighborhood or regional parks or other recreational facilities that could cause significant deterioration of the facility.

Source: Project Plans.

15.b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

Discussion: The project does not involve recreational facilities beyond what will be provided on-site for students. Any provided on-site recreational facilities will utilize existing development.

Source: Project Plans.

16. TRANSPORTATION/TRAFFIC. Would the project:				
	Potentially Significant Impacts	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
16.a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?		X		

Discussion: A Traffic Impact Analysis (TIA) for the project has been prepared to comply with transportation requirements of the County of San Mateo, Redwood City, Town of Atherton, City of Menlo Park, and the California Department of Transportation (Caltrans), as key intersections of study for the project included intersections within these jurisdictions. Of 26 key intersections studied, 4 will be significantly impacted by project-related traffic due to increased vehicle delay. These impacted intersections and the recommended mitigation measures to reduce the impacts to a less than significant level are discussed in Section 16.d. One additional intersection, Middlefield Road and Woodside Road (State Route 84), is part of the San Mateo County Congestion Management Program (CMP) network; however, the project will not have any impact to the level of service of this intersection, as described in Section 16.b. Furthermore, the project will not add more than 100 peak hour vehicle trips to the CMP network.

The TIA also analyzes queuing at 5 key intersections in the area, as identified in Section 16.d. below. With the exception of the Bay Road/Woodside Road intersection, the turn pockets were determined to be adequate to accommodate the estimated maximum queues under existing, background, and cumulative conditions. Queuing impacts to the Bay Road/Woodside Road intersection were determined to be minimal as the project trips would increase the queue by less than one vehicle. See Section 16.d. for further discussion and the recommended mitigation measures that will reduce project-related traffic impacts to a less than significant level.

Source: Final San Mateo County Congestion Management Program, 2015, City/County Association of Governments of San Mateo County; Final Traffic Impact Analysis for Synapse School Expansion Project, prepared by Hexagon Transportation Consultants, Inc., dated January 19, 2016; Memorandum to the Traffic Impact Analysis, prepared by Hexagon Transportation Consultants, Inc., dated July 22, 2016.

16.b. Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the County congestion management agency for designated roads or highways?				X

Discussion: The project is estimated to add fewer than 100 peak hour vehicle trips to the San Mateo County Congestion Management Program's (CMP) network. Furthermore, the project is not identified to have any impacts to the level of service standards or travel demand measures of Middlefield Road and Woodside Road (State Route 84), which is the only identified key intersection for the project that is included in the CMP network.

Source: Final San Mateo County Congestion Management Program, 2015, City/County Association of Governments of San Mateo County; Final Traffic Impact Analysis for Synapse School Expansion Project, prepared by Hexagon Transportation Consultants, Inc., dated January 19, 2016.

16.c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in significant safety risks?				X

Discussion: The project will not have any impacts on air traffic patterns as the expansion of the school will utilize existing development and does not involve air traffic.

Source: Project Plans.

16.d. Significantly increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		X		

Discussion: The Traffic Impact Analysis (TIA), prepared by Hexagon Transportation Consultants, Inc. (Hexagon), for the project provides analysis on intersection level of service impacts and queuing impacts that would be generated by the project, which have the potential to increase roadway hazards. The following summarizes the conclusions from the TIA and identifies the recommended mitigation measures to reduce any significant impacts to a less than significant level.

INTERSECTION LEVEL OF SERVICE IMPACTS

Hexagon studied 26 intersections in the North Fair Oaks Community to determine intersection level of service impacts under cumulative plus project conditions. Of the 26 studied intersections, 4 are determined to be significantly impacted due to an increase in vehicle delay. Below identifies the 4 impacted intersections and the recommended mitigation measures to reduce the impacts to a less than significant level.

Edison Way and 5th Avenue

Based on a Memorandum from Hexagon, dated July 22, 2016, Synapse School proposes to reduce impacts to the Edison Way and 5th Avenue intersection by the implementation of a school shuttle program to reduce vehicle trips generated by the school. The shuttle program is available for both students and staff for morning drop-offs and afternoon pick-ups. The shuttle program, along with carpooling, would reduce vehicle trips generated by the increased student capacity and mitigate the impact at the Edison Way and 5th Avenue intersection to a less than significant level provided AM

peak hour trips do not exceed 275 trips. Therefore, the following mitigation measure is recommended to ensure that the project does not exceed 275 AM peak hour trips:

Mitigation Measure 4: Normal operation of the school shall not exceed 275 morning peak hour trips. The morning peak hour is defined as the highest one-hour period between 7:00 a.m. - 9:00 a.m. during which the maximum traffic generated by the school occurs.

The applicant shall retain a third-party traffic consultant to count the trip generation of the school, which would include counting the school driveways plus counting any school-related traffic that is dropping off students along Edison Way or any of its cross-streets. The third-party consultant will conduct the counts over three (3) weekdays (a Tuesday, Wednesday, and/or Thursday) in October and March of each school year, excluding scheduled school holidays. The trip count shall be the average of the three weekday counts. Concurrent with the trip counts, the third-party traffic consultant shall conduct a queuing analysis for on-street queuing due to driveway back-up at the designated on-site pick-up/drop-off points for the school. The data from the traffic counts shall be submitted to the County of San Mateo Public Works Roadway Traffic Services Division and the Current Planning Section of the County of San Mateo Planning and Building Department in a report for review and acceptance. The County may also choose to conduct its own monitoring if desired.

If the monitoring shows that the trip cap is exceeded, then the applicant shall have 30 days to prepare and submit a Transportation Demand Management (TDM) Program that incorporates measures to reduce the number of trips below the trip cap, and shall have an additional 30 days to implement the TDM Program in order to bring the site into compliance with the trip cap. Measures included in the TDM Program may include, but shall not be limited to, staggering start times, adding shuttle buses, initiating a carpooling program, and offering staff incentives to take alternative transportation. A subsequent monitoring will be conducted by the County 30 days following implementation of the TDM Program. If the subsequent monitoring indicates that the site still exceeds the trip cap, then the applicant may need to resort to reducing student enrollment accordingly to bring the site into compliance with the trip cap. Non-compliance evidenced by the subsequent monitoring may also result in review of the use permit by the Planning Commission.

Mitigation Measure 5: The applicant shall provide, upon request by the County, shuttle bus logs for all shuttle buses serving the school. The shuttle logs shall show the number of students dropped off at the school site each day.

Mitigation Measure 6: The maximum student enrollment shall not exceed 260 students. The applicant shall submit an annual report stating the total number of students and staff attending or working at the school prior to the beginning of each school year. Any increase in student enrollment beyond 260 students shall require an amendment to the Non-Conforming Use Permit and shall require an updated Traffic Impact Analysis.

Fair Oaks Avenue and Marsh Road

In order to reduce the project impacts at the Fair Oaks Avenue and Marsh Road intersection to a less than significant level, which requires improving the level of service at this intersection to a Level of Service (LOS) C, the following mitigation measure is recommended:

Mitigation Measure 7: The applicant shall install a left-turn refuge lane on Marsh Road, within the current roadway width, to improve the intersection operation.

Middlefield Road and 5th Avenue and Middlefield Road and 2nd Avenue

In order to reduce the project impacts at the Middlefield Road and 5th Avenue intersection and Middlefield Road and 2nd Avenue intersection to a less than significant level, which requires improving the average and worst movement delays at these intersection to a less than 4-second increase from no-project conditions, the following mitigation measure is recommended:

Mitigation Measure 8: The school shall stagger the start and end times by one hour with

85 students starting one hour earlier during the 7:00 a.m. - 8:00 a.m. hour and ending during the 2:00 p.m. - 3:00 p.m. hour to reduce AM peak-hour trips.

VEHICLE QUEUING IMPACTS

Hexagon analyzed vehicle queuing at five intersections to determine whether the project would significantly increase vehicle queues beyond the capacity of the turn pockets at the following intersections:

1. El Camino Real (State Route 82) and 5th Avenue
2. Bay Road and Woodside Road (State Route 84)
3. Middlefield Road and Woodside Road (State Route 84)
4. US 101 northbound off-ramp and Marsh Road
5. US 101 southbound *off-ramp and Marsh Road*

With the exception of the Bay Road/Woodside Road intersection, the turn pockets were determined to be adequate to accommodate the estimated maximum queues under existing, background, and cumulative conditions.

The queueing analysis found that the southbound left-turn queue at the Bay Road/Woodside Road intersection would exceed the vehicle storage capacity during the AM peak hour under cumulative no-project conditions. However, the project trips would only increase the queue by less than one vehicle. Therefore, the project would result in a minimal increase in vehicle queuing impacts at the Bay Road/Woodside Road intersection. To monitor queuing associated with the proposed project over the long-term, Mitigation Measure 4, above, requires that an annual queuing analysis be submitted to the County for review and acceptance.

Additionally, in order to ensure that vehicle queuing on-site is minimized during drop-off and pick-up, the following mitigation measure is recommended:

Mitigation Measure 9: The school shall provide designated staff or parents to assist in the on-site management of drop-off and pick-up operations.

Source: Final Traffic Impact Analysis for Synapse School Expansion Project, prepared by Hexagon Transportation Consultants, Inc., dated January 19, 2016; Memorandum to the Traffic Impact Analysis, prepared by Hexagon Transportation Consultants, Inc., dated July 22, 2016.

16.e.	Result in inadequate emergency access?				X

Discussion: The project does not propose any changes to existing access onto the project parcels for emergency services. Furthermore, the Menlo Park Fire Protection District has reviewed the project and provided conditional approval.

Source: Project Plans; Menlo Park Fire Protection District.

16.f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				X
Discussion: The project does not require or propose any new, or existing, public transit, bicycle, or pedestrian facilities. Given that the project will utilize existing development, and includes continued use and potential expansion of a private shuttle program for students and staff, the project will not conflict with any adopted policies or decrease the performance or safety of any facilities. **Source:** Project Plans.				
16.g. Cause noticeable increase in pedestrian traffic or a change in pedestrian patterns?			X	
Discussion: The project proposes an incremental increase in student population with the expansion of facilities. Current enrollment at the school is 220, where the maximum enrollment under the proposed project will be 260. While it is expected that any local students, or staff, may walk to the school, any change in pedestrian traffic would be minimal. **Source:** Project Plans.				
16.h. Result in inadequate parking capacity?		X		
Discussion: See staff's discussion in Section 10.b. above. **Source:** See referenced sources in Section 10.b. above.				

17. UTILITIES AND SERVICE SYSTEMS. Would the project:				
	Potentially Significant Impacts	***Significant Unless Mitigated***	***Less Than Significant Impact***	***No Impact***
17.a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
Discussion: The project parcels are served by the Fair Oaks Sewer Maintenance District, which is managed and regulated by the County of San Mateo Department of Public Works (DPW). Thus, wastewater treatment for the project parcels are not regulated by the Regional Water Quality Control Board. Furthermore, the Fair Oaks Sewer Maintenance District has provided conditional approval of the project. **Source:** Project Location; County Department of Public Works, Fair Oaks Sewer Maintenance District.				

17.b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
Discussion: The project parcels will continue to be served by the Fair Oaks Sewer Maintenance District (via the County of San Mateo Department of Public Works) and the California Water Service Company, both of which have provided (conditional) approval of the project. While the County Department of Public Works has indicated that the existing downstream sewer mains must be evaluated to determine if there is sufficient capacity to accommodate any additional sewage demand for the proposed project, such evaluation would be required at the building permit stage, and there is no expectation that any potential upgrades to the sewer district's facilities would result in any significant environmental effects given that the service district area consists of a densely urbanized community. **Source:** Project Plans; California Water Service Company; County Department of Public Works, Fair Oaks Sewer Maintenance District.				
17.c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
Discussion: See staff's discussion in Section 9.a. above. **Source:** See referenced sources in Section 9.a. above.				
17.d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
Discussion: The project parcels will continue to be served by the California Water Service Company, who has provided approval of the project with no conditions. **Source:** Project Plans; California Water Service Company.				
17.e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
Discussion: See staff's discussion in Section 17.b. above. **Source:** See referenced sources in Section 17.b. above.				

17.f.	Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	

Discussion: The County of San Mateo has contracted with Recology to provide solid waste service for the North Fair Oaks area, which includes the project parcels. The County's contract with Recology runs through 2020. Recology transfers solid waste pick-up to Shoreway Recycling and Disposal Center. Shoreway Recycling and Disposal Center then distributes the waste materials as applicable, including recycling of qualified materials when feasible and transferring unrecyclable materials to the Ox Mountain Landfill. While the project may result in an increase in solid waste disposal, any such increase will be minimal given the incremental increase in students from the school's current operating capacity. Therefore, the project will not result in a significant increase in solid waste.

Source: Recology San Mateo County; Project Plans.

17.g.	Comply with Federal, State, and local statutes and regulations related to solid waste?				X

Discussion: The California Integrated Waste Management Act directs local agencies to divert the amount of solid waste that is being disposed of into landfills by maximizing the use of feasible source reduction, recycling, and composting. As discussed in Section 17.f. above, Shoreway Recycling and Disposal Center transports recyclable materials to specialized processing facilities with residual waste being transferred to the Ox Mountain Landfill. Shoreway Recycling and Disposal Center's function in the solid waste disposal process for the North Fair Oaks area, which includes the project parcels, increases efforts for recycling and helps to decrease the amount of solid waste that is being diverted to the landfill.

Source: California Integrated Waste Management Act of 1989.

17.h.	Be sited, oriented, and/or designed to minimize energy consumption, including transportation energy; incorporate water conservation and solid waste reduction measures; and incorporate solar or other alternative energy sources?				X

Discussion: The project will utilize existing buildings to accommodate an expansion of the Synapse School. While minimal exterior improvements are needed, interior renovation of the buildings will be necessary to change their former use as storage, office, and child recreation to school-related use. As such, any proposed renovation work will be required to comply with mandatory requirements under the California Green Building Standards Code as well as with California Energy Codes.

Source: Project Plans.

17.i.	Generate any demands that will cause a public facility or utility to reach or exceed its capacity?		X		

Discussion: The project parcels will continue to be served by municipal water and sewer. The project has been reviewed by the California Water Service Company and the Fair Oaks Sewer Maintenance District, who have provided (conditional) approvals. In addition, while the project will generate additional traffic, a traffic impact analysis prepared by Hexagon Transportation Consultants, Inc. has concluded that any increases in traffic can be mitigated to a less than significant level, subject to recommended Mitigation Measures 4-8. See Section 16. above. Furthermore, the County Department of Public Works has reviewed and conditionally approved the traffic impact analysis and recommended mitigation measures.

Source: Project Location; See referenced sources in Section 16. above.

18.	MANDATORY FINDINGS OF SIGNIFICANCE.	*Potentially Significant Impacts*	*Significant Unless Mitigated*	*Less Than Significant Impact*	*No Impact*
18.a.	Does the project have the potential to degrade the quality of the environment, significantly reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		

Discussion: As discussed in Section 4., the project will not result in any biological impacts as the project site is in a light industrial zoned district of the densely developed urban community of North Fair Oaks. The project parcels are surrounded by light industrial and residential development and the project proposes to utilize the existing built conditions of the project parcels. The project does have the potential to result in significant traffic impacts according to a Traffic Impact Analysis prepared for the project; however, Mitigation Measures 4-8 are recommended to reduce such impacts to a less than significant level, as discussed in Section 16.

Source: Subject Document.

18.b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			X	
Discussion: The project proposes to expand an existing private K-8 school in an urban community that has been designated to support medium to high density land uses including industrial, commercial, and institutional uses. The project will utilize past development on the project site and propose an incremental increase in school population. While the project will not generate any significant increase in demand on public services, the project has the potential to generate significant traffic impacts in a community that lacks adequate circulation and parking facilities. However, a Traffic Impact Analysis for the project, which considers cumulative plus project conditions, identifies that the traffic impacts generated from the project can be reduced to a less than significant level with proper mitigation. Therefore, Mitigation Measures 2-9 are recommended to minimize traffic and parking-related impacts associated with the project to a less than significant level. **Source:** Subject Document.				
18.c. Does the project have environmental effects which will cause significant adverse effects on human beings, either directly or indirectly?		X		
Discussion: As identified through this document, the project could result in environmental impacts that could both directly and indirectly cause impacts on human beings, including temporary air quality impacts and traffic and parking impacts; see Sections 3., 8., 10., 16., and 17. However, the implementation of the recommended mitigation measures included in this document will adequately reduce any potential impacts to a less than significant level. **Source:** Subject Document.				

RESPONSIBLE AGENCIES. Check what agency has permit authority or other approval for the project.

AGENCY	YES	NO	TYPE OF APPROVAL
U.S. Army Corps of Engineers (CE)		X	
State Water Resources Control Board		X	
Regional Water Quality Control Board		X	
State Department of Public Health		X	

AGENCY	YES	NO	TYPE OF APPROVAL
San Francisco Bay Conservation and Development Commission (BCDC)		X	
U.S. Environmental Protection Agency (EPA)		X	
County Airport Land Use Commission (ALUC)		X	
CalTrans		X	
Bay Area Air Quality Management District		X	
U.S. Fish and Wildlife Service		X	
Coastal Commission		X	
City		X	
Sewer/Water District:		X	
Other:		X	

MITIGATION MEASURES

	Yes	No
Mitigation measures have been proposed in project application.	X	
Other mitigation measures are needed.	X	

The following measures are included in the project plans or proposals pursuant to Section 15070(b)(1) of the State CEQA Guidelines:

Mitigation Measure 1: Pursuant to the Bay Area Air Quality Management District's CEQA Guidelines (May 2011), the following Air Quality Best Management Practices shall be implemented throughout the duration of construction-related activities on the project site:

a. Idling times shall be minimized either by shutting equipment or vehicles off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485, of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

b. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications.

c. Minimize the idling time of diesel powered construction equipment to two minutes.

Mitigation Measure 2: All staff members who drive to the school shall be required to park in the school's on-site parking lot.

Mitigation Measure 3: All 127 on-site parking spaces shall be appropriately striped. Striping marks shall be maintained in a clear and visible manner so that they are easily recognizable to drivers.

Mitigation Measure 4: Normal operation of the school shall not exceed 275 morning peak hour trips. The morning peak hour is defined as the highest one-hour period between 7:00 a.m. -

9:00 a.m. during which the maximum traffic generated by the school occurs.

The applicant shall retain a third-party traffic consultant to count the trip generation of the school, which would include counting the school driveways plus counting any school-related traffic that is dropping off students along Edison Way or any of its cross-streets. The third-party consultant will conduct the counts over three (3) weekdays (a Tuesday, Wednesday, and/or Thursday) in October and March of each school year, excluding scheduled school holidays. The trip count shall be the average of the three weekday counts. Concurrent with the trip counts, the third-party traffic consultant shall conduct a queuing analysis for on-street queuing due to driveway back-up at the designated on-site pick-up/drop-off points for the school. The data from the traffic counts shall be submitted to the County of San Mateo Public Works Roadway Traffic Services Division and the Current Planning Section of the County of San Mateo Planning and Building Department in a report for review and acceptance. The County may also choose to conduct its own monitoring if desired.

If the monitoring shows that the trip cap is exceeded, then the applicant shall have 30 days to prepare and submit a Transportation Demand Management (TDM) Program that incorporates measures to reduce the number of trips below the trip cap, and shall have an additional 30 days to implement the TDM Program in order to bring the site into compliance with the trip cap. Measures included in the TDM Program may include, but shall not be limited to, staggering start times, adding shuttle buses, initiating a carpooling program, and offering staff incentives to take alternative transportation. A subsequent monitoring will be conducted by the County 30 days following implementation of the TDM Program. If the subsequent monitoring indicates that the site still exceeds the trip cap, then the applicant may need to resort to reducing student enrollment accordingly to bring the site into compliance with the trip cap. Non-compliance evidenced by the subsequent monitoring may also result in review of the use permit by the Planning Commission.

Mitigation Measure 5: The applicant shall provide, upon request by the County, shuttle bus logs for all shuttle buses serving the school. The shuttle logs shall show the number of students dropped off at the school site each day.

Mitigation Measure 6: The maximum student enrollment shall not exceed 260 students. The applicant shall submit an annual report stating the total number of students and staff attending or working at the school prior to the beginning of each school year. Any increase in student enrollment beyond 260 students shall require an amendment to the Non-Conforming Use Permit and shall require an updated Traffic Impact Analysis.

Mitigation Measure 7: The applicant shall install a left-turn refuge lane on Marsh Road, within the current roadway width, to improve the intersection operation.

Mitigation Measure 8: The school shall stagger the start and end times by one hour with 85 students starting one hour earlier during the 7:00 a.m. - 8:00 a.m. hour and ending during the 2:00 p.m. - 3:00 p.m. hour to reduce AM peak-hour trips.

Mitigation Measure 9: The school shall provide designated staff or parents to assist in the on-site management of drop-off and pick-up operations.

DETERMINATION (to be completed by the Lead Agency).

On the basis of this initial evaluation:

_____ I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared by the Planning Department.

X I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because of the mitigation measures in the discussion have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.

_____ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

[signature]
(Signature)

3/30/17 — Date

Project Planner — (Title)

ATTACHMENTS:

A. Vicinity Map/Project Location
B. Site Plan
C. Floor Plan, 3425 Edison Way
D. Floor Plan, 3375 Edison Way
E. Elevation Plans, 3375 Edison Way (exterior changes proposed)
F. Floor Plan, 3355 Edison Way
G. Floor Plan, 3345 Edison Way
H. Final Traffic Impact Analysis for Synapse School Expansion, prepared by Hexagon Transportation Consultants, Inc., dated January 19, 2016 (*available at the County of San Mateo Planning and Building Department)*
I. Memorandum for Alternative Mitigation for Synapse School Expansion, prepared by Hexagon Transportation Consultants, Inc., dated July 22, 2016 (*available at the County of San Mateo Planning and Building Department)*

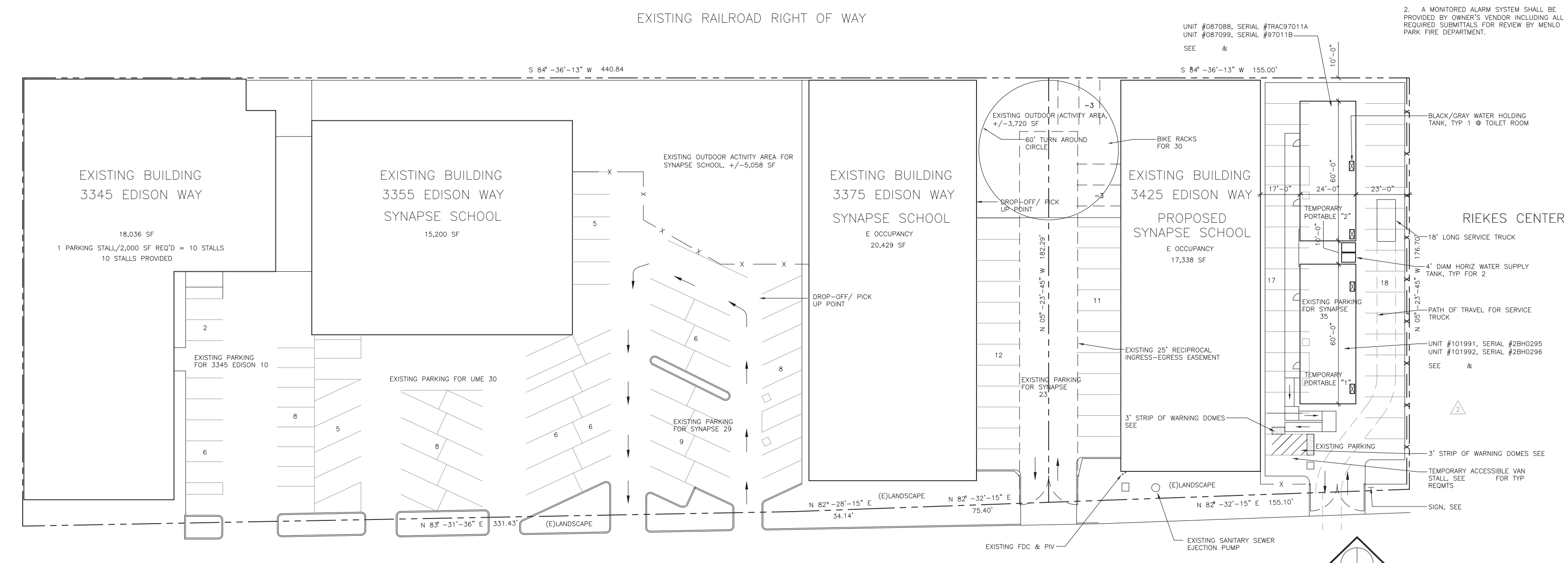
SSB:jlh – SSBBB0134_WJH.DOCX
Initial Study Checklist 10.17.2013.docx

ATTACHMENT A

NOTES:

1. REFER TO PORTABLES SUPPLIER'S DRAWINGS FOR SPECIFICS BUILDINGS, RAMPS, HANDRAILS, & LANDINGS.

2. A MONITORED ALARM SYSTEM SHALL BE PROVIDED BY OWNER'S VENDOR INCLUDING ALL REQUIRED SUBMITTALS FOR REVIEW BY MENLO PARK FIRE DEPARTMENT.



SITE PLAN

1" = 20' - 0"

PROJECT NORTH

PROJECT DESCRIPTION

REMODEL OF AN EXISTING BUILDING AT 3425 EDISON TO ACCOMODATE AN INDEPENDANT K-8 SCHOOL. WORK INCLUDES: UPGRADE OF ACCESSIBLE SITE FEATURES & ACCESS; UPGRADES TO THE EXISTING TOILET ROOMS; PROVISION OF NEW STAFF TOILET ROOMS; AND MINOR INTERIOR REMODELING AS SHOWN ON THE DRAWINGS.

DUE TO CHANGE IN OCCUPANCY WORK MAY ALSO INCLUDES SEISMIC UPGRADE OF THE EXISTING STRUCTURE. THIS MAY INVOLVE CLOSING UP EXISTING WINDOW OPENINGS IN TWO CONCRETE PANELS AS SHOWN ON THE DRAWINGS.

PROJECT SUMMARY

OCCUPANCY	PRIMARILY E WITH MINOR B OCCUPANCIES
CONSTRUCTION TYPE	III-B, FIRE SPRINKLERED
NUMBER OF STORIES	TWO (AT EACH BUILDING)
EXISTING BUILDING AREAS:	
3345 EDISON	
FIRST FLOOR:	15,612 SF
SECOND FLOOR:	2,423 SF
TOTAL:	18,035 SF
3355 EDISON	
FIRST FLOOR:	10,176 SF
SECOND FLOOR:	5,024 SF
TOTAL:	15,200 SF
3375 EDISON	
FIRST FLOOR:	12,153 SF
SECOND FLOOR:	8,276 SF
TOTAL:	20,429 SF
3425 EDISON	
FIRST FLOOR:	9,858 SF
SECOND FLOOR:	7,480 SF
TOTAL:	17,338 SF

ALLOWABLE BUILDING AREA IS 29,000 SF FOR 3425 BASED ON 14,500 SF ALLOWED PER FLOOR. REFERENCE IS MADE TO CBC TABLE 503 & SECTION 506.4.1.

APPLICABLE CODES:

2013 EDITIONS; CALIFORNIA BUILDING, MECH, ELEC, PLUMB, FIRE, ENERGY & GREEN BLDG CODES.
CURRENT COUNTY OF SAN MATEO ORDINANCES

REQUIRED PARKING UNDER PLANNING DEPT CRITERIA:

3345 EDISON:	
+/- 269 SF OF OFFICE @ 200SF PER STALL =	2 STALLS
2 CLASSROOMS @ 1 STALL PER =	2 STALLS
+/-13,002 SF OF EXTENDED CLASSROOM @ 1 STALL PER 2,000 SF =	7 STALLS
+/- 2,012 SF OF STORAGE, UTILITY, TOILET RMS, STAIRS, LOBBY	0 STALLS
SUB-TOTAL REQUIRED =	11 STALLS
3355 EDISON:	
+/- 1,641 SF OF OFFICE @ 200SF PER STALL =	8 STALLS
+/- 4,954 SF OF MULTI-USE SPACE @ 100SF PER STALL =	50 STALLS
2,162 SF STORAGE, TOILET RMS, STAIRS, LOBBY	0
4 CLASSROOMS @ 1 STALL PER =	4 STALLS
+/-4,493 SF OF EXTENDED CLASSROOM @ 1 STALL PER 2,000 SF =	3 STALLS
SUB-TOTAL REQUIRED =	65 STALLS
3375 EDISON:	
+/- 1,159 SF OF OFFICE @ 200SF PER STALL =	6 STALLS
+/- 827 SF OF MULTI-USE SPACE @ 100SF PER STALL =	9 STALLS
19 CLASSROOMS @ 1 STALL PER =	19 STALLS
+/- 1,110 SF OF EXTENDED CLASSROOM/OPEN AREA @ 1 STALL PER 2,000 SF =	1 STALLS
SUB-TOTAL REQUIRED =	35 STALLS
3425 EDISON:	
+/- 1,913 SF OF OFFICE @ 200SF PER STALL =	10 STALLS
+/- 1,340 SF OF MULTI-USE SPACE @ 100SF PER STALL =	14 STALLS
9 CLASSROOMS @ 1 STALL PER = STALLS	9
SUB-TOTAL REQUIRED =	33 STALLS
TOTAL REQUIRED =	144 STALLS
TOTAL PROVIDED @ 3345, 3355, 3375 & 3425 :	127 STALLS

111 STANDARD FULL SIZE STALLS
6 ACCESSIBLE STALLS

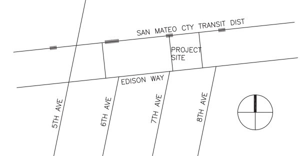
REQUIRED PARKING UNDER DEPT OF PUBLIC WORKS CRITERIA:

SYNAPSE REQMTS @ .25 STALLS PER STUDENT x 260 =	65 STALLS
3345 WAREHOUSE FACILITY @ .5 STALLS/1000SF x 18,036SF =	9 STALLS
TOTAL REQUIRED =	75 STALLS

TOTAL PARKING PROVIDED FOR ALL 4 BUILDINGS = 127 STALLS
TOTAL AREA OF BUILDINGS = 71,002 SF
PARKING REQUIRED PER FUTURE RATIO OF 1/750SF = 95 STALLS

Google earth — feet 1000 / meters 400

AREA PLAN WITHIN 500' OF SITE



VICINITY MAP

NTS

DRAWING SHEET INDEX

ARCHITECTURAL

P-0	GENERAL INFO & SITE PLAN
P-1	3425 EDISON EXISTING FLOOR PLANS
P-2	3425 EDISON PROPOSED FLOOR PLANS
P-3	3425 EDISON BUILDING ELEVATIONS
P-4	3375 EDISON FLOOR PLANS
P-5	3375 EDISON BUILDING ELEVATIONS
P-6	3355 EDISON FLOOR PLANS
P-7	3345 EDISON FLOOR PLANS

Tenant Improvements for
Synapse School
3345, 3355, 3375 & 3425 Edison Way
Menlo Park California

CRJ Architects, Inc.
Architecture and Planning
2596 Bay Road, Suite C, Redwood City, CA 94063
Telephone: 650-780-9560

LICENSED ARCHITECT — No. C015444 — Exp. 8-31-2017 — STATE OF CALIFORNIA

NO	DATE	REVISIONS
	7/7/2014	USE PERMIT SUBMITTAL
	12/2/2014	PORTABLE REVISION
	3/30/15	Client changes
	1/5/16	PARKING CALC UPDATE
	5/13/16	Pkg calc update
	12/13/16	Addition of 3345 Edison

Site Plan

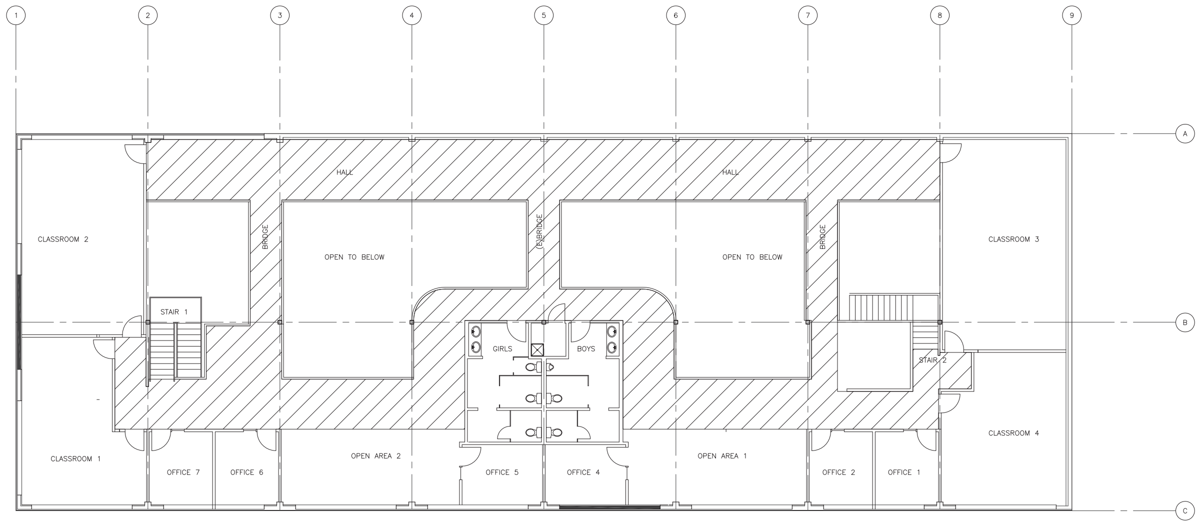
BY: AA
JOB: 13-114
DATE: 2/19/2014

P-0

SHT. 1 OF 8

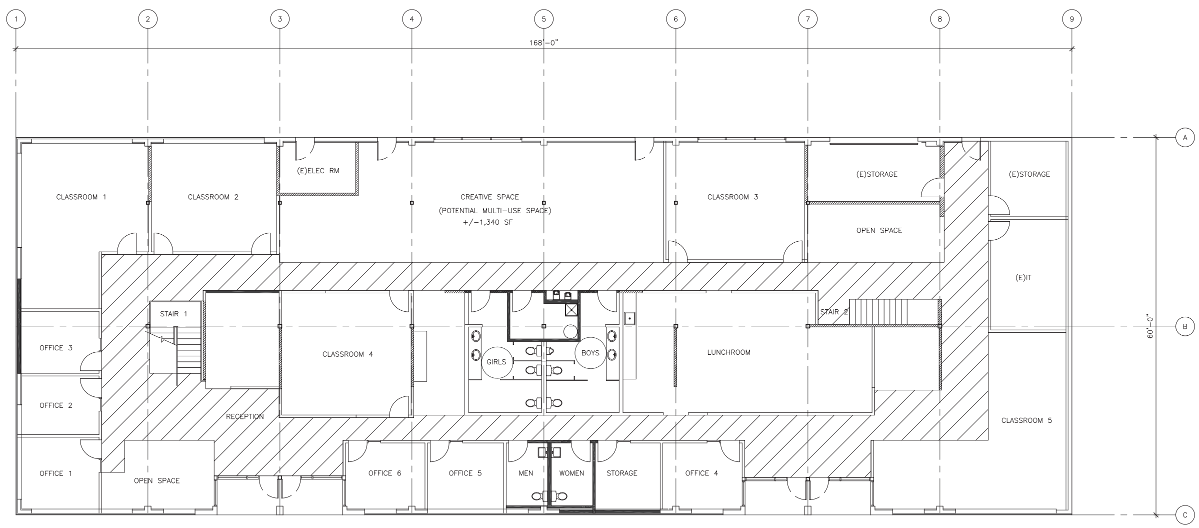
ATTACHMENT B

CIRCULATION SPACE



SECOND FLOOR; 7,480 SF

SECOND FLOOR



FIRST FLOOR; 9,858 SF

FIRST FLOOR

PROJECT NORTH

CONCEPTUAL FLOOR PLANS

1/8" = 1' - 0"

5

NO	DATE	REVISIONS
	12/13/16	Addition of 3345 Edison
	7/17/2014	USE PERMIT SUBMITTAL

Proposed Improvements for
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3345, 3355, 3375 & 3425 Edison Way
Menlo Park California

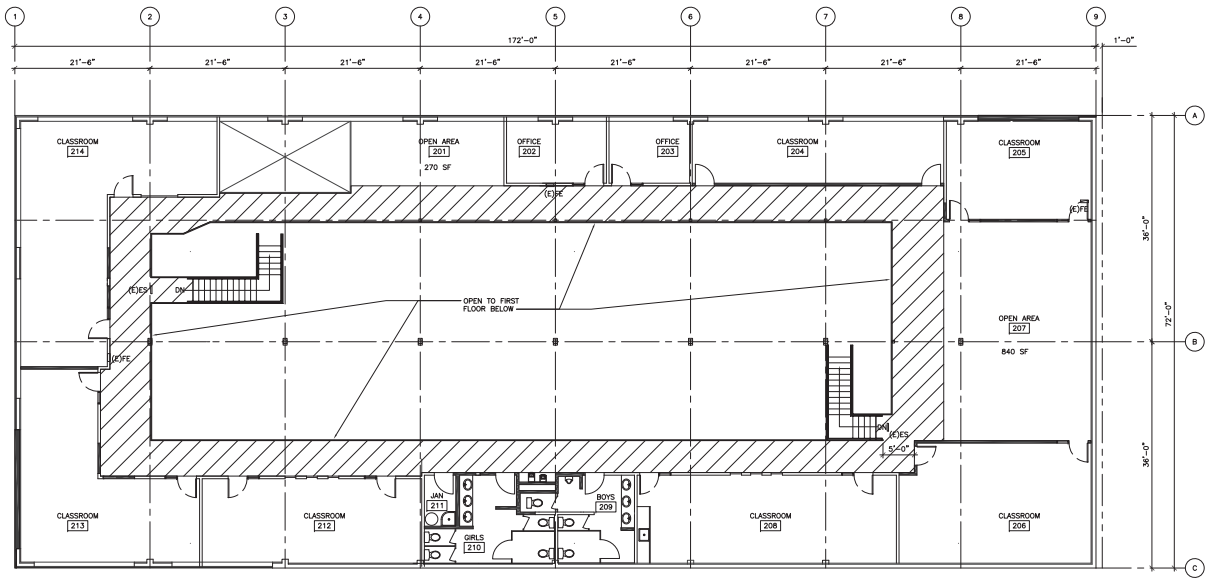
CRJ Architects, Inc.
Architecture and Planning
2596 Bay Road, Suite C, Redwood City, CA 94063

Conceptual
Floor Plans
3425 Edison

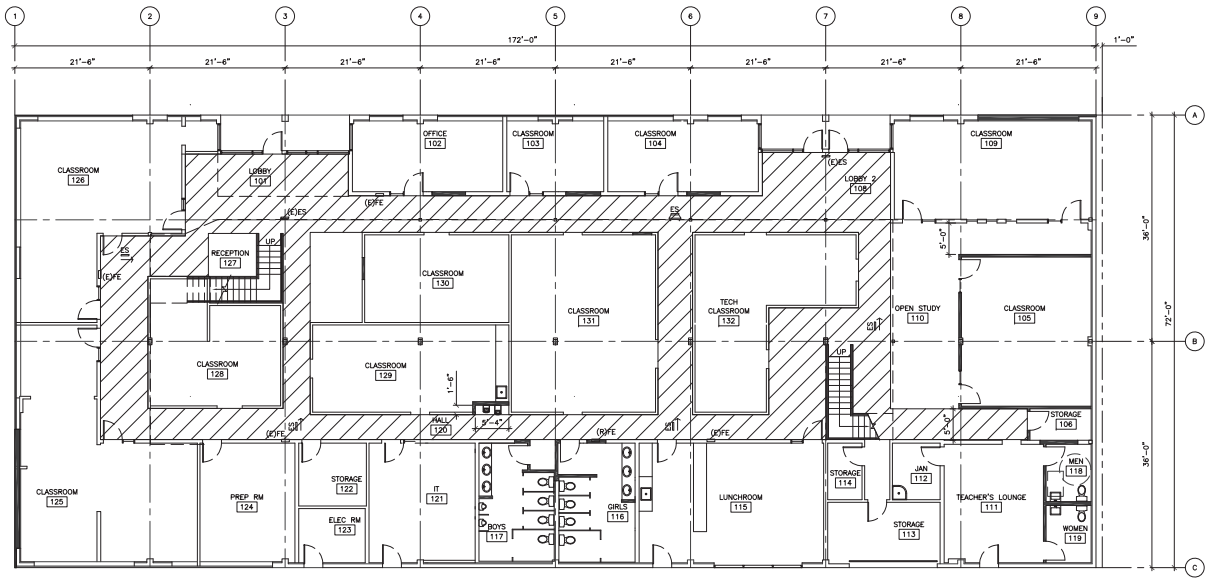
BY: AA
JOB: 13-114
DATE: 2/19/2014

P-2

ATTACHMENT C



SECOND FLOOR



FIRST FLOOR

PROJECT NORTH

1/8" = 1' - 0"

FLOOR PLANS

Proposed Improvements for
Synapse School
3345, 3355, 3375 & 3425 Edison Way
Menlo Park
California

CRJ Architects, Inc.
Architecture and Planning
2596 Bay Road, Suite C, Redwood City, CA 94063
Telephone: (650) 299-2600

Floor Plans
3375 Edison

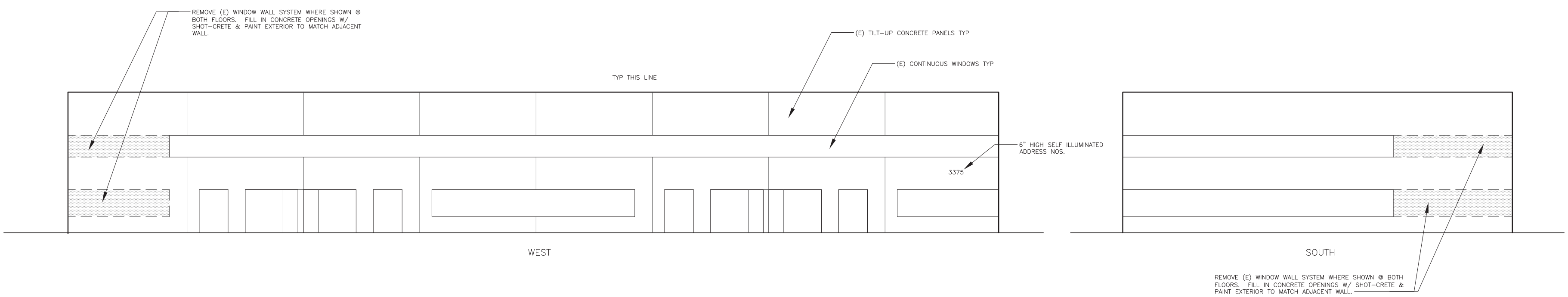
BY: AA
JOB: 13-114
DATE: 2/19/2014

P-4

SHT 3 OF 3

REVISIONS

ATTACHMENT D



BUILDING ELEVATIONS

1/8" = 1' - 0"

NO	DATE	REVISIONS
1	7/17/2014	USE PERMIT SUBMITTAL

LICENSED ARCHITECT
KIM ALAN ANDRESS
No. C015444
Exp. 8-31-2017
STATE OF CALIFORNIA

Proposed Improvements for
Synapse School
3345, 3355, 3375 & 3425 Edison Way
Menlo Park California

CRJ Architects, Inc.
Architecture and Planning
2596 Bay Road, Suite C, Redwood City, CA 94063
Telephone: 650-780-9560

Building
Elevations
3375 Edison

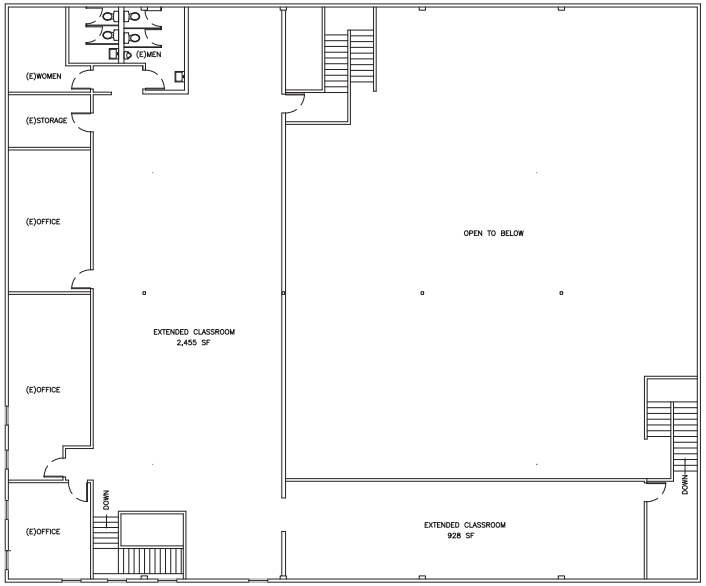
BY: AA
JOB: 13-114
DATE: 2/19/2014

P-5

SHT. 6 OF 8

REVISIONS 1

ATTACHMENT E



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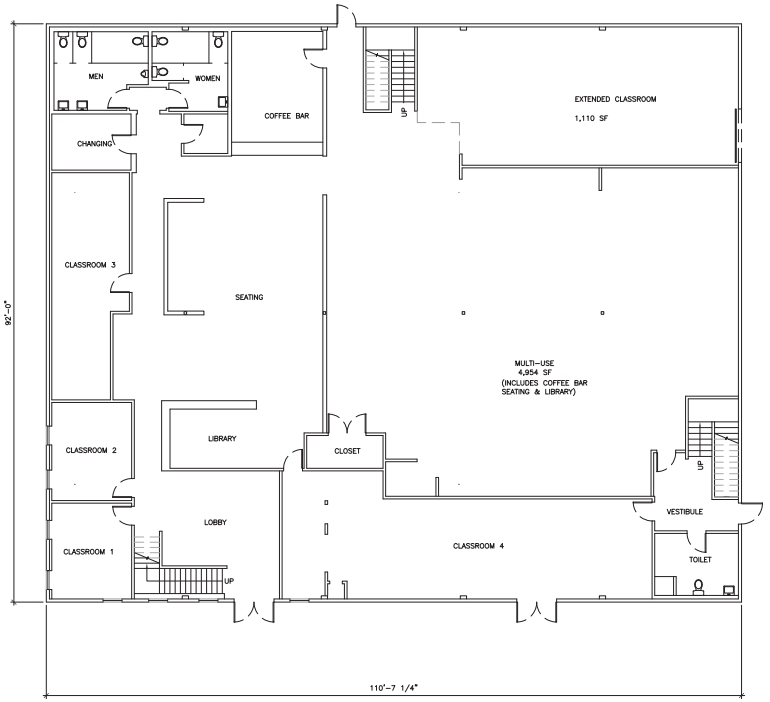


FIRST FLOOR

PROJECT NORTH

EXISTING FLOOR PLANS

1/8" = 1'-0"

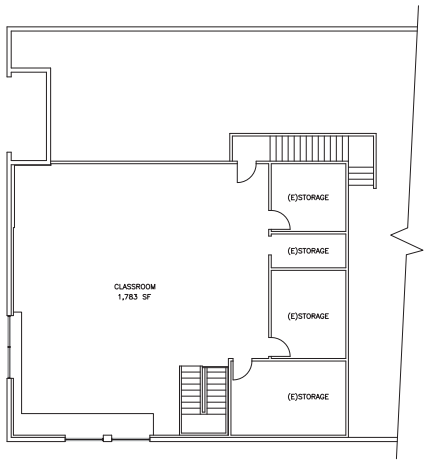
Tenant Improvements for
Synapse School
3345, 3355, 3375 & 3425 Edison Way
Menlo Park
California

CRJ Architects, Inc.
Architecture and Planning
2580 Bay Road, Suite 4 Redwood City, CA 94063
Telephone: 650-780-9560

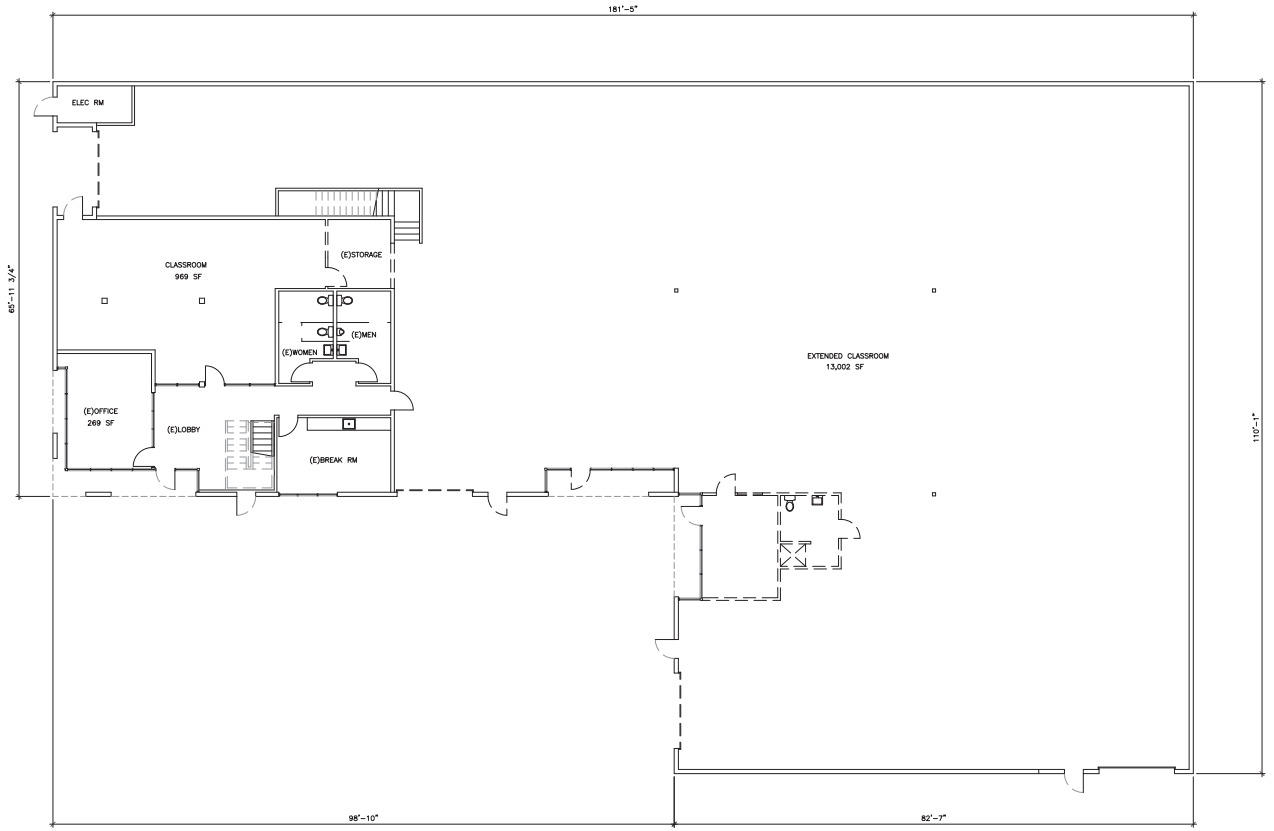
3355 Edison
Floor Plans

P-6

ATTACHMENT F



SECOND FLOOR



FIRST FLOOR

PROJECT NORTH

EXISTING FLOOR PLANS

1/8" = 1'-0"

Tenant Improvements for
Synapse School
3345, 3355, 3375 & 3425 Edison Way
Menlo Park
California

CRJ Architects, Inc.
Architecture and Planning
2596 Bay Road, Suite C, Redwood City, CA 94063
Telephone: 650-701-2560

EXISTING 3345 EDISON FLOOR PLANS

BY: AA
JOB: 13-114.01
DATE: 12/13/2016

P-7

SHT. ___ OF ___

REVISIONS

ATTACHMENT G

County of San Mateo - Planning and Building Department

ATTACHMENT E

HEXAGON TRANSPORTATION CONSULTANTS, INC.

Synapse School Expansion Project II

Trafic Impact Analysis

Prepared for:

Synapse School

April 21, 2021

Hexagon Transportation Consultants, Inc.
Hexagon Office: 4 N. Second Street, Suite 400
San Jose, CA 95113
Phone: 408.971.6100
Hexagon Job Number: 18GB41
Client Name: Jim Eagen, Synapse School

Table of Contents

Appendices

List of Tables

List of Figures

Executive Summary

This report presents the results of the traffic impact analysis (TIA) for the proposed expansion of Synapse School, a K-8 school on 3375 Edison Way in San Mateo County, CA. The school proposes to increase enrollment from the permitted 260 students to 310 students. Of the proposed 310 students, 30 students would be pre-school students. There would be no changes to the building square footage. The 2018 - 2019 enrollment was 254 K-8 students.

As part of the existing conditional use permit (CUP), the school is permitted to have up to 260 students and is required to comply with a trip cap of 275 morning peak-hour trips. The school currently implements a shuttle program to reduce the vehicle trips generated by the school and to comply with the trip cap. The school complied with the trip cap requirement based on the results of the trip monitoring conducted in October 2018 and 2019.

Project Trip Estimates

Based on the trip generation counts at the school, at the beginning of the school day (AM peak hour between 8:00 and 9:00 AM) the trip generation rate for the existing school was calculated to be 1.08 trips per student. At the end of the school day (school PM peak hour between 3:00 and 4:00 PM), the trip generation rate was calculated to be 0.8 trips per student. The trip rates account for the shuttle program that is being implemented at the school.

With the expansion, the school would increase the enrollment to 310 students. Of the 310 students, 30 students would be pre-school students that would start at the same hour as K-8 students and would be dismissed at 2:00 PM. Pre-school students would not take shuttles. The school expects that one third of pre-school students to carpool with siblings, so the 20 non-carpooling pre-school students (two thirds of 30 pre-school students) are expected to generate 40 AM peak-hour trips (20 non-carpooling students x 2 trips per student) and would not generate any school PM peak-hour trips. Therefore, a rate of 1.33 trips per student was calculated for the pre-school students (40 trips / 30 students). The school trips for the 280 K-8 students were estimated using the trip generation rates observed for the current school. The proposed expansion is estimated to generate an increase of 68 AM peak-hour trips and 21 school PM peak-hour trips.

Intersection Level of Service Impacts

Table ES-1 summarizes the results of the peak-hour intersection level of service analysis under the following conditions: existing (Chapter 2), existing plus project (Chapter 3), background (Chapter 4), background plus project (Chapter 5), cumulative no-project and cumulative plus project (Chapter 6) conditions.

Under existing and background conditions, the added project trips would not cause the study intersections that operate unacceptably under no-project conditions to exceed the applicable significance impact thresholds or cause the study intersections that operate acceptably under no-project conditions to exceed the applicable level of service standards. Therefore, the project would not result in a significant traffic impact under existing plus project conditions or background plus project conditions.

Under cumulative conditions, the added project trips would cause an increase in vehicle delay exceeding the applicable significance impact thresholds at the following intersections:

- 5th Avenue and Edison Way (San Mateo County)
- 2nd Avenue and Middlefield Road (San Mateo County)

Recommended Project Mitigation

The following mitigation measures are proposed to mitigate the project's impacts. Table ES-1 summarizes the intersection levels of service at impacted intersections with the mitigation measure.

- **Trip Cap of 298 AM Peak-Hour Trips:** In order to avoid the project impacts at the 5th Avenue/Edison Way and 2nd Avenue/Middlefield Road intersections under cumulative plus project conditions, the school should implement measures, including staggering the pre-school start time to 9:15 AM, to reduce the AM peak hour trips generated by the school from 343 trips to 298 trips. The trip cap would improve the average and worst movement delays at these two intersections to less than a 4-second increase from no-project conditions. Staggering the pre-school start time is also expected to reduce the peak parking demand and improve the drop-off operations because there would be fewer students arriving during the peak drop-off period. With the staggering schedule, the school would provide care and accommodations to preschool students who arrive early with siblings before the preschool program starts.

Bicycles, Pedestrians, and Transit

Similar to existing conditions, most students would be dropped off at school, with very few students walking or bicycling to school. Most of the residential streets in the vicinity of the school have no sidewalks. Therefore, it would not be safe for the younger students to walk to school. Although the streets do not have bike lanes, the low volumes and travel speeds on the neighborhood streets are conducive to bicycling.

Site Access and Circulation

The review of site access and circulation focuses on the evaluation of drop-off/pick-up operations in the main parking lot in front of Buildings 1, 2, and 3. The main parking lot is configured with a loading area in front of Building 2. All drop-off/pick-up vehicles enter the parking lot via the driveway in front of Building 3, drop off/pick-up students in front of Building 2, and exit the parking lot via the driveway next to Building 1. Parents that choose to park and walk students to the school use the middle driveways to enter and exit the parking lot. There are staff members in the loading area to manage the drop-off/pick-up traffic.

In the morning, the drop-off vehicle queue occasionally extended out of the parking lot by one to five vehicles, which occurred in the westbound shoulder/parking lane and did not block westbound traffic on Edison Way. Most of the time, the drop-off traffic moved efficiently and smoothly within the parking lot. Parents were not observed to drop off students on Edison Way.

In the afternoon, the school implements an informing system to speed up the pick-up operations. Upon arrival, parents inform the staff at the driveway who then inform the staff inside the building to bring out each student. The pick-up vehicle moves forward to the loading area, while waiting for the student to be brought out. Observations show that the pick-up traffic moved efficiently and smoothly within the parking lot with the informing system, and the pick-up vehicle queue did not extend to Edison Way.

The proposed expansion would increase the enrollment by up to 50 students (30 pre-school students and 20 K-8 students). The pre-school parents would utilize the loading area in front of Building 2. Parents would also park in front of Buildings 1 and 2. The current traffic management practice would continue to be implemented to move the drop-off/pick-up traffic within the parking lot. However, because the drop-off vehicle queue was observed to back up to Edison Way occasionally by one to five vehicles in the morning, the enrollment increase would potentially worsen the vehicle queuing condition on Edison Way. Therefore, it is recommended the school assign more staff members in the drop-off areas and in the parking lot to ensure drop-off/pick-up traffic moves efficiently on site and to prevent vehicle queuing on Edison Way. During the peak drop-off/pick-up periods, the school should also assign a staff member at the inbound driveway to monitor the inbound vehicle queueing condition at the driveway and coordinate with staff in the loading area and parking lot to quickly move the inbound traffic if the vehicle queue extends to Edison Way.

Parking

As part of the existing conditional use permit (CUP), the school is required to provide 128 on-site parking spaces. Following the CUP approval, approximately 44 of these spaces were designated and striped on turf between Buildings 3 and 4. However, because the actual parking demand is only 37-50 parking spaces (as discussed below) and the main parking lot was able to accommodate this parking demand, the parking spaces between Buildings 3 and 4 and east of Building 4 were seldom used. This turfed area between Buildings 3 and 4 is currently used as outdoor classrooms under temporary tents to comply with Covid-19 protocol, as well as an outdoor educational garden. Accordingly, the school currently maintains 84 striped parking spaces on site with 53 parking spaces in the main parking lot, 26 parking spaces in the faculty parking lot east of Building 4, and 5 parking spaces between Buildings 3 and 4.

Per the San Mateo County Zoning Ordinance Section 6276.7, the school would be required to provide 192 parking spaces. The school is applying for a parking exception as part of the CUP amendment submittal to reduce this requirement to 60 parking spaces with 46 parking spaces in the main parking lot, 5 parking spaces between Buildings 3 and 4, and 9 parking spaces in the parking lot east of Building 4. Based on parking demand counts conducted on in November 2019, the maximum number of vehicles parked on site ranged from 37 to 50 vehicles between 8:00 AM and 9:00 AM. The school enrollment was 260 students in November 2019 when the parking counts were conducted. With the proposed enrollment of 310 students, the projected parking demand would be 44 to 60 spaces (an 19.2% increase). Therefore, the parking demand for the 310-student enrollment would be much lower than the 192 parking spaces required by Zoning Ordinance Section 6276.7 and also lower than the current 84 striped parking spaces provided. Accordingly, the proposed 60 parking spaces proposed would adequately accommodate the school's parking demand.

During the morning drop-off period, most parents drop off K-8 students without parking. In the afternoon, some parents parked in the parking lot or on Edison Way to pick up students at the school buildings. While there are available parking spaces in the parking lot, some parents were observed to park on Edison Way (and walk to the school to pick up students) to avoid interaction with the pick-up traffic.

For the proposed 30 pre-school students, it is anticipated that parents would either park in the loading area in front of Building 2 or park in front of Buildings 1 and 2. It is expected that some of the parking spaces would be reserved for the pre-school during morning drop off and afternoon pick up hours. Because most parents drop K-8 students without parking, there would be enough parking spaces for the pre-school in the morning. In the afternoon, the pre-school students would be dismissed more than a half hour before the K-8 students, so the parking demand would not overlap.

Based on these observations and the anticipated pre-school operations, the proposed 60 parking spaces would be sufficient to accommodate the school's anticipated parking demand. If the parking exception is not granted to the extent requested, the school would consider relying on their existing reciprocal parking agreement with Sports House at 3151 Edison Way to meet its remaining parking requirement.

Table ES-1
Intersection Level of Service Summary

				Existing				Existing + Project				Background				Background + Project				Cumulative				Cumulative + Project			
				Average[1]		Worst[2]		Average[1]		Worst[2]		Average[1]		Worst[2]		Average[1]		Worst[2]		Average[1]		Worst[2]		Average[1]		Worst[2]	
ID	Intersection (Jurisdiction)	Control	Peak Hour	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS
1	2nd Ave and Edison Wy	AWSC	AM	9.1	A	9.8	A	9.2	A	9.9	A	9.3	A	9.9	A	9.3	A	10.0	A	10.3	B	11.4	B	10.3	B	11.4	B
	(San Mateo County)		PM	8.5	A	8.9	A	8.5	A	8.9	A	8.8	A	9.4	A	8.9	A	9.4	A	9.1	A	9.6	A	9.1	A	9.7	A
2	5th Ave and Edison Wy	AWSC	AM	18.3	C	24.9	C	20.1	C	28.1	D	18.3	C	24.9	C	20.1	C	28.1	D	**39.5**	**E**	**64.8**	**F**	**45.5**	**E**	**78.0**	**E**
			Mitigated AM[5]																					***41.0***	***E***	***68.4***	***E***
	(San Mateo County)		PM	18.8	C	25.0	C	19.3	C	25.8	D	18.8	C	25.0	C	19.3	C	25.8	D	**38.5**	**E**	**64.2**	**F**	**40.3**	**E**	**68.1**	**F**
3	Fair Oaks Ave and Edison Wy	OWSC	AM			9.5	A			9.6	A			9.5	A			9.6	A			9.7	A			9.8	A
	(San Mateo County)		PM			9.4	A			9.4	A			9.4	A			9.4	A			9.5	A			9.6	A
4	Fair Oaks Ave and Marsh Rd	OWSC	AM			16.9	C			17.3	C			18.0	C			18.4	C			19.0	C			19.5	C
	(San Mateo County)		PM			18.8	C			18.9	C			20.4	C			20.5	C			21.7	C			21.9	C
5	5th Ave and Semicircle Rd	Signal	AM	7.3	A	10.1	A	7.3	A	10.2	B	7.2	A	10.1	B	7.3	A	10.2	B	14.6	B	22.6	C	14.7	B	22.8	C
	(San Mateo County)		PM	5.4	A	8.7	A	5.4	A	8.7	A	5.4	A	8.8	A	5.4	A	8.8	A	9.0	A	12.0	B	9.0	A	12.1	B
6	5th Ave and Middlefield Rd	Signal	AM	24.9	C	36.8	D	25.5	C	37.0	D	25.4	C	36.7	D	26.1	C	37.2	D	36.0	D	49.3	D	37.8	D	51.2	D
	(San Mateo County)		PM	26.2	C	37.4	D	26.4	C	37.6	D	26.4	C	38.2	D	26.6	C	38.3	D	37.6	D	52.8	D	38.1	D	53.3	D
7	Marsh Rd and Middlefield Rd	Signal	AM	29.3	C			29.5	C			32.6	C			32.8	C			32.7	C			32.9	C		
	(Atherton)		PM	32.1	C			32.2	C			34.0	C			34.0	C			38.3	D			38.4	D		
8	Marsh Rd and Bay Rd	Signal	AM	24.1	C			24.2	C			25.2	C			25.3	C			25.6	C			25.7	C		
	(Menlo Park)		PM	33.2	C			33.2	C			32.2	C			32.2	C			33.5	C			33.5	C		
9	5th Ave and El Camino Real	Signal	AM	19.2	B	34.3	C	19.4	B	34.6	C	19.4	B	34.3	C	19.6	B	34.6	C	25.7	C	43.9	D	26.2	C	45.4	D
	(San Mateo County)		PM	19.7	B	31.9	C	19.8	B	32.0	C	19.9	B	32.2	C	20.0	B	32.5	C	26.5	C	43.0	D	26.7	C	43.4	D
10	Marsh Rd and Florence St	Signal	AM	37.9	D			37.8	D			36.4	D			36.5	D			39.5	D			39.5	D		
	(Menlo Park)		PM	39.0	D			39.0	D			39.0	D			39.0	D			41.6	D			41.6	D		
11	5th Ave and Bay Rd	AWSC	AM	30.6	D			30.9	D			34.3	D			34.7	D										
	(Redwood City)		PM	29.1	D			29.2	D			**36.1**	**E**			**36.3**	**E**										
		Signal[4]	AM																	19.5	B			20.2	C		
			PM																	13.4	B			13.4	B		
12	Woodside Rd and Bay Rd	Signal	AM	**81.2**	**F**			**81.7**	**F**			**124.7**	**F**			**125.2**	**F**			**90.6**	**F**			**91.7**	**F**		
	(Redwood City)		PM	47.1	D			47.2	D			**95.1**	**F**			**95.2**	**F**			**122.7**	**F**			**122.9**	**F**		
13	Woodside Rd and Middlefield Rd	Signal	AM	41.9	D			42.2	D			43.9	D			44.1	D			**117.1**	**F**			**117.6**	**F**		
	(Redwood City/CMP)		PM	35.3	D			35.3	D			35.0	D			35.1	D			**127.3**	**F**			**127.6**	**F**		
14	Marsh Rd and US 101 NB Off-ramp	Signal	AM	17.6	B			17.6	B			25.0	C			25.1	C			19.8	B			19.9	B		
	(Menlo Park)		PM	13.5	B			13.5	B			13.8	B			13.9	B			15.8	B			15.9	B		
15	Marsh Rd and US 101 SB Off-ramp	Signal	AM	17.4	B			17.4	B			19.0	B			19.1	B			19.5	B			19.6	B		
	(Menlo Park)		PM	17.8	B			17.8	B			17.9	B			17.9	B			19.7	B			19.7	B		
16	2nd Ave and Bay Rd	AWSC	AM	12.7	B			12.8	B			13.7	B			13.8	B			28.3	D			28.7	D		
	(Redwood City)		PM	12.6	B			12.6	B			14.2	B			14.3	B			14.1	B			14.2	B		
17	2nd Ave and Middlefield Rd	TWSC	AM			**40.9**	**E**			**43.2**	**E**			**46.0**	**E**			**48.9**	**E**			**155.5**	**F**			**167.3**	**F**
			Mitigated AM[5]																							***159.1***	***F***
	(San Mateo County)		PM			26.3	D			26.3	D			**57.9**	**F**			**58.5**	**F**			**62.7**	**F**			**64.1**	**F**
18	San Benito Ave and Fair Oaks Ave	TWSC	AM			11.9	B			12.2	B			11.9	B			12.2	B			12.6	B			12.9	B
	(San Mateo County)		PM			9.7	A			9.7	A			9.7	A			9.7	A			9.9	A			10.0	B
19	Palmer Ln and Fair Oaks Ave	TWSC	AM			11.5	B			11.6	B			11.5	B			11.6	B			12.1	B			12.3	B
	(San Mateo County)		PM			9.9	A			9.9	A			9.9	A			9.9	A			10.1	B			10.2	B
20	Holbrook Ln and Fair Oaks Ave	TWSC	AM			10.7	B			10.8	B			10.7	B			10.8	B			11.1	B			11.2	B
	(San Mateo County)		PM			9.3	A			9.3	A			9.3	A			9.3	A			9.4	A			9.5	A

ID	Intersection (Jurisdiction)	Control	Peak Hour	Existing				Existing + Project				Background				Background + Project				Cumulative				Cumulative + Project			
				Average[1]		Worst[2]		Average[1]		Worst[2]		Average[1]		Worst[2]		Average[1]		Worst[2]		Average[1]		Worst[2]		Average[1]		Worst[2]	
				Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS
21	18th Ave and Bay Rd	OWSC[3]	AM			9.3	A			9.3	A			9.3	A			9.3	A			10.1	B			10.1	B
	(San Mateo County)		PM			8.7	A			8.7	A			8.7	A			8.7	A			8.9	A			8.9	A
22	14th Avee and Fair Oaks Ave	TWSC	AM			10.8	B			11.0	B			10.8	B			11.0	B			11.3	B			11.5	B
	(San Mateo County)		PM			9.8	A			9.8	A			9.8	A			9.8	A			10.0	B			10.0	B

Notes:

AWSC = all-way stop controlled intersection; TWSC = two-way stop controlled intersection; OWSC = one-way stop controlled intersection.
1. Average intersection delay and LOS are reported for signalized and all-way stop controlled intersections.
2. Worst movement delay and LOS are reported for signalized and unsignalized intersections in the San Mateo County.
3. The intersection of 18th Ave and Bay Rd is yield controlled for the northbound appporach, but analyzed as an OWSC.
4. Signalization is anticipated to be in place by the cumulative year as identified in the 2012 Update to the Redwood City Transportation Impact Mitigation Fee.
5. The mitigation measure is to expand the school's shuttle program to meet the AM trip cap of 298 trips.
Bold indicates a substandard level of service.
Bold indicates a significant impact.

1. Introduction

This report presents the results of the traffic impact analysis (TIA) for the proposed expansion of Synapse School, a K-8 school on 3375 Edison Way in San Mateo County, CA (see Figure 1). The school proposes to increase enrollment from the permitted 260 students to 310 students. Of the proposed 310 students, 30 students would be pre-school students. There would be no changes to the building square footage. The 2018 - 2019 enrollment was 254 K-8 students. Access to the school is provided via driveways off Edison Way (see Figure 2).

The current school schedule is 8:15 - 8:45 AM for the morning drop-off, 3:15 - 3:30 PM for the lower school pick-up, and 3:30 - 3:45 PM for the middle school pick-up. On Friday, the pick-up schedule is 2:30 - 2:45 PM for the lower school and 2:45 - 3:00 PM for the middle school. The proposed pre-school would start at 8:15 - 8:45 AM and end at 2:00 PM.

As part of its existing conditional use permit (CUP), the school is permitted to have up to 260 students and is required to comply with a trip cap of 275 morning peak-hour trips. The school currently implements a shuttle program to reduce the vehicle trips generated by the school and to comply with the trip cap. The school conducted trip monitoring in October 2018 and 2019. There were 254 and 260 students enrolled during the 2018 and 2019 trip monitoring, respectively. The school complied with the trip cap requirement based on the trip monitoring results. The trip monitoring results are included in Appendix A.

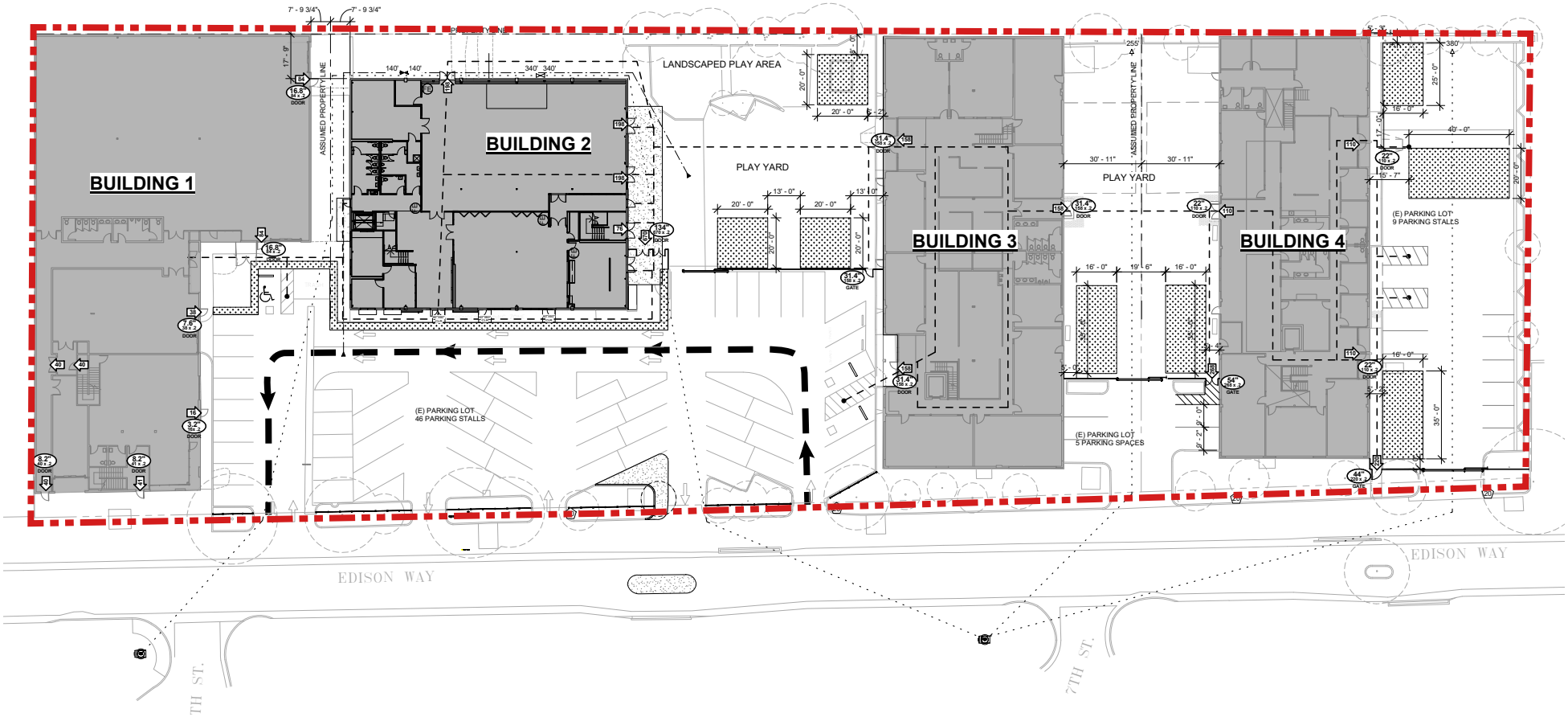
It should be noted that any future expansion of the school and or increase in enrollment beyond 310 students would require re-evaluation of the traffic conditions and an amendment to the traffic study.

Scope of Study

The traffic study was conducted for the purpose of identifying potential transportation impacts related to the project. The potential impacts of the project were evaluated in accordance with the standards set forth by the County of San Mateo, Redwood City, City of Menlo Park, and Town of Atherton. The project would generate fewer than 100 peak-hour vehicle trips; therefore, an analysis of impacts on state routes and routes of regional significance in accordance with the City/County Association of Governments of San Mateo County (C/CAG)'s Congestion Management Program (CMP) guidelines is not required.

Figure 1
Site Location and Study Intersections

HEXAGON



LEGEND

= Synapse School Boundary

= Drop-Off / Pick-Up Path

Figure 2
Synapse School Site and Drop-Off/Pick-Up Circulation

HEXAGON

NORTH
Not to Scale

The traffic analysis included an analysis of weekday AM (7:00 - 9:00 AM) and school PM (2:00 - 4:00 PM) peak-hour traffic conditions and determined the traffic impacts of the proposed development on 22 key intersections in the vicinity of the new school site. The 2:00 - 4:00 PM peak period was selected to account for traffic levels encountered during typical school pick-up activity occurring during this time period.

Thirteen of the study intersections are under the jurisdiction of the County of San Mateo, 4 are located in Redwood City, 4 are located in Menlo Park, and one is located in Atherton. The study intersections are identified below.

1. 2nd Avenue and Edison Way (San Mateo County)
2. 5th Avenue and Edison Way (San Mateo County)
3. Fair Oaks Avenue and Edison Way (San Mateo County)
4. Fair Oaks Avenue and Marsh Road (San Mateo County)
5. 5th Avenue and Semicircle Road (San Mateo County)
6. 5th Avenue and Middlefield Road (San Mateo County)
7. Marsh Road and Middlefield Road (Atherton)
8. Marsh Road and Bay Road (Menlo Park)
9. 5th Avenue and El Camino Real (SR 82) (San Mateo County)
10. Mash Road and Florence Street (Menlo Park)
11. 5th Avenue and Bay Road (Redwood City)
12. Woodside Road (SR 84) and Bay Road (Redwood City)
13. Woodside Road (SR 84) and Middlefield Road (Redwood City)
14. Marsh Road and US 101 Northbound Off-ramp (Menlo Park)
15. Marsh Road and US 101 Southbound Off-ramp (Menlo Park)
16. 2nd Avenue and Bay Road (Redwood City)
17. 2nd Avenue and Middlefield Road (San Mateo County)
18. San Benito Avenue and Fair Oaks Avenue (San Mateo County)
19. Palmer Lane and Fair Oaks Avenue (San Mateo County)
20. Holbrook Lane/17th Avenue and Fair Oaks Avenue (San Mateo County)
21. 18th Avenue and Bay Road (San Mateo County)
22. 14th Avenue and Fair Oaks Avenue (San Mateo County)

Traffic conditions were evaluated for the following scenarios:

- ***Existing Conditions.*** Existing intersection volumes were obtained from manual turning-movement counts conducted in September 2018. New traffic count data are contained in Appendix B.

- ***Existing Plus Project Conditions.*** Existing plus project traffic volumes were estimated by adding to existing traffic volumes the trips associated with the project. Existing plus project conditions were evaluated relative to existing conditions in order to determine potential project impacts according to the level of service policy for each jurisdiction based on the location of each study intersection.

- ***Background Conditions*.** Background traffic volumes were estimated by adding to existing traffic volumes the projected volumes from approved but not yet constructed developments in the vicinity of the project. Lists of approved but not yet constructed developments were provided by the Cities of Redwood City and Menlo Park.

- ***Background Plus Project Conditions.*** Background plus project traffic volumes were estimated by adding to background traffic volumes the trips associated with the project. Background plus

project conditions were evaluated relative to background conditions in order to determine potential project impacts according to the level of service policy for each jurisdiction based on the location of each study intersection.

- ***Cumulative Conditions.*** This scenario evaluates local traffic volumes and roadway conditions projected for the year 2040, which is 20 years from the anticipated project completion. The cumulative no project traffic volumes were estimated using the projected baseline (2015) and 2040 volumes from the bi-county C/CAG-VTA travel demand model, the 2040 General Plan volumes from the City of Menlo Park ConnectMenlo environmental impact report (EIR) (October 2016), and the 2040 cumulative volumes from the City of Redwood City Broadway Plaza Draft EIR (November 2018). Cumulative plus project traffic volumes were estimated by adding to cumulative traffic volumes the trips associated with the project. Cumulative plus project conditions were evaluated relative to cumulative conditions in order to determine potential project impacts according to the level of service policy for each jurisdiction based on the location of each study intersection.

Methodology

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

Data Requirements

The data required for the analysis were obtained from field observations, new traffic counts, previous traffic studies, and the County of San Mateo. The following data were collected from these sources:

- Existing intersection volumes
- Existing lane geometries
- Signal timing and phasing
- Approved but not yet completed projects

Intersection Level of Service Analysis Methodologies

Traffic conditions at the study intersections were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays.

This study utilizes Synchro software to determine intersection level of service. The Synchro software is based on the *2010 Highway Capacity Manual* (HCM) methodology for signalized and unsignalized intersections. This method evaluates intersection operations on the basis of average control delay time (measured in seconds per vehicle) for all vehicles at the intersection. This average delay can then be correlated to a level of service as shown in Table 1 for signalized intersections. The level of service correlation for unsignalized, stopped-controlled intersections is shown in Table 2. For stop-controlled intersections, level of service depends on the average delay experienced by vehicles on the stop-controlled approaches. Thus, for two-way or T-intersections, operations are defined by the average control delay experienced by vehicles entering the intersection from the stop-controlled approaches on minor streets or from left-turn approaches on major streets. For all-way stop controlled intersections, level of service is determined by the average delay for all movements through the intersection.

Table 1
Signalized Intersection Level of Service Definitions Based on Average Delay

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
A	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay.	10.0 or less
B	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 20.0
C	Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though some vehicles may still pass through the intersection without stopping.	20.1 to 35.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lengths, or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently.	55.1 to 80.0
F	This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes of such delay levels.	greater than 80.0

Source: Transportation Research Board, *2000 Highway Capacity Manual* (Washington, D.C., 2000), p.10-16.

Table 2
Unsignalized Intersection Level of Service Definitions Based on Delay

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

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

Level of Service Standards and Significant Impact Criteria

Significance criteria are used to establish what constitutes an impact. For this analysis, the study intersections are located within different jurisdictions including San Mateo County, Redwood City, the City of Menlo Park, and the Town of Atherton. Level of Service standards and significance criteria are described for each jurisdiction below.

County of San Mateo

According to the *County of San Mateo Traffic Impact Study Requirements* (9/1/2013), a project will be considered to have a significant impact if, for either peak hour, either of the following conditions occurs:

1. For intersections currently in compliance with the level of service standard, a project will cause the intersection to operate at a level of service that violates the overall standard of LOS C with no individual movement operating at worse than LOS D. On occasion, LOS D may be allowed for peak periods in very dense urban conditions at the County's discretion.
2. For intersections currently NOT in compliance with the level of service standard, a project will cause the intersection to operate at a level of service that violates the standard LOS mentioned above and the proposed project increases average control delay and individual movements at the intersection by 4 seconds or more.

As noted above, minimum LOS standards for County intersections are typically LOS C or better; however, a LOS D standard may be allowed for peak periods in very dense urban conditions per the County's discretion. The County Public Works staff confirmed that the County-maintained intersections within the study area are considered urban and therefore are subject to the LOS D standard. Therefore, for this study, a LOS D standard has been established for intersections and individual movements.

City of Redwood City

The City of Redwood City General Plan contains level of service standards. The study intersections are located outside the Downtown area; thus, the intersections are subject to the City's LOS D standard. The intersection of Woodside Road (SR 84) and Middlefield Road in Redwood City is a CMP intersection and has a standard of LOS E or better.

According to common Redwood City practice, traffic impacts at a study intersection would be considered significant if the project would cause:

Signalized Intersection

1. Operations at a signalized intersection to deteriorate from an acceptable level (LOS D or better) to an unacceptable level (LOS E or F); or
2. Average delay at a signalized intersection operating at an unacceptable level (LOS E or F) to increase by 5 seconds or more.

CMP Signalized Intersection

3. Operations at a signalized intersection to deteriorate from an acceptable level (LOS E or better) to an unacceptable level (LOS F); or
4. Average delay at a signalized intersection operating at an unacceptable level (LOS F) to increase by 5 seconds or more.

Unsignalized Intersection

1. Operations at an unsignalized intersection to deteriorate from an acceptable level (LOS D or better) to an unacceptable level (LOS E or F); or
2. Delay at an unsignalized intersection operating at an unacceptable level (LOS E or F) to increase by 5 seconds or more; and traffic volumes at the intersection satisfy the Caltrans peak-hour volume signal warrant for traffic signal installation.

A significant impact by the City of Redwood City standards is said to be satisfactorily mitigated when measures are implemented that eliminates the project impact.

City of Menlo Park

The City of Menlo Park's traffic impact analysis guidelines are described in the 2004 Circulation System Assessment (CSA) document. Within the CSA, the City has established detailed standards of significance. The level of service standard for signalized intersections on a primary arterial is LOS D or better. This standard is applied to the study intersections on Marsh Road.

For city arterial intersections and local approaches to State-controlled intersections, a project is considered to have a "potentially significant" traffic impact if during either peak hour:

1. The addition of project traffic causes an intersection operating at LOS A through LOS D to operate at an unacceptable LOS E or F, or increase the average delay at the intersection by 23 seconds or more, whichever occurs first; or
2. The addition of project traffic causes an increase of more than 0.8 seconds of average delay to vehicles on the critical movements of local approaches to State controlled (Caltrans) intersections operating at a LOS E or F.

Town of Atherton

According to common Atherton practice, a project is said to create a significant impact on traffic conditions at an intersection if, for either peak hour, either of the following conditions occurs:

1. The level of service at the intersection degrades from an acceptable LOS D or better under no project conditions to an unacceptable LOS E or F under project conditions, or
2. The level of service at the intersection is an unacceptable LOS E or F under no project conditions and the addition of project trips causes the intersection delay on the worst approach to increase by 4 seconds or more.

Report Organization

The remainder of this report is divided into six chapters. Chapter 2 describes existing conditions, including the existing roadway network, transit service, and existing bicycle and pedestrian facilities. Chapter 3 describes the method used to estimate project traffic, the intersection operations under existing plus project conditions, and the project's impact on the existing roadway network. Chapter 4 describes approved projects in the study area and presents the intersection operations under background conditions. Chapter 5 presents the intersection operations under background plus project conditions and describes the project's impact on the planned roadway network. Chapter 6 presents the intersection operations under cumulative conditions with and without the project and describes the project's impact on the planned roadway network. Chapter 7 presents the analysis of other transportation related issues, including site access and circulation.

2. Existing Conditions

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

Existing Roadway Network

Regional access to the project site is provided via US 101. US 101 a north-south freeway that extends through and beyond the Bay Area, connecting San Francisco to San Jose. In the project vicinity, US 101 generally runs in east-west direction and has four mixed-flow lanes on both directions with one high occupancy vehicle (HOV) lane on both directions south of the Woodside Road interchange. US 101 provides site access via the full interchanges at Woodside Road (SR 84) and Marsh Road.

Local access to the site is provided by El Camino Real (SR 82), Woodside Road (SR 84), Marsh Road, Middlefield Road, Bay Road, 5th Avenue, and Second Avenue. Descriptions of each roadway facility are presented below.

El Camino Real (SR 82) is an east-west six-lane arterial that extends from San Francisco southerly to San Jose. Between Whipple Avenue and Woodside Road in Redwood City, the facility consists of four travel lanes.

Woodside Road (SR 84) is a north-south arterial roadway that begins just west of I-280 and terminates at US 101 in the project vicinity. In the project vicinity, Woodside Road consists of four lanes.

Marsh Road is a north-south arterial roadway beginning at Middlefield Road with two lanes, widening to four lanes at Bay Road, and ending as a four-lane arterial roadway at Bayfront Expressway, which connects to the Dumbarton Bridge. It provides access to the North Fair Oaks neighborhood of San Mateo County via Fair Oaks Avenue.

Middlefield Road is an east-west arterial roadway that begins in Downtown Redwood City and extends to San Antonio Avenue in Mountain View. In the project vicinity, Middlefield Road consists of four lanes between Woodside Road and 8th Avenue/Semicircular Road and two lanes east of 8th Avenue.

Bay Road is an east-west collector roadway that extends from just west of Woodside Road in Redwood City Road to Willow Road in Menlo Park. It is separated by the Dumbarton Rail tracks near March Road. The western portion extends eastward from Woodside Road to its intersection with Spring Street/15th Avenue, where it becomes Florence Street, with four lanes west of 5th Avenue and three lanes east of

5th Avenue. The eastern portion extend from March Road to Willow Road with two lanes. Bay Road provides access to the North Fair Oaks neighborhood via 2nd Avenue, 5th Avenue, and Marsh Road.

5th Avenue is a north-south roadway fronting commercial and residential uses, extending from El Camino Real to Rolison Road adjacent to the US 101 freeway. It consists of four lanes between El Camino Real and Middlefield Road, then two lanes north of Middlefield Road where the uses are primarily residential. The posted speed limit is 25 miles per hour. Street parking is permitted on both sides of the street in the project vicinity. It provides access to the project site via Edison Way.

2nd Avenue is a north-south two-lane residential and industrial street that extends from Williams Avenue adjacent to the Caltrain tracks in the North Fair Oaks area to Broadway in Redwood City. It provides access to the project site via Edison Way.

Fair Oaks Avenue is a two-lane local residential street in the North Fair Oaks area connecting Marsh Road with Edison Way near the project site. Characteristic of several local streets within this neighborhood, Fair Oaks Avenue includes numerous traffic circles at intersections as well as other traffic calming devices that discourage cut-through vehicle traffic and promotes lower vehicle speeds within the neighborhood. Street parking is prohibited on both sides of the street. It provides access to the project site via Edison Way.

Edison Way is a two-lane local street that straddles industrial and residential uses in the North Fair Oaks area. Industrial uses line the north side of the roadway, which also abuts the Dumbarton Rail right-of-way, from First Avenue to the roadway terminus at 11th Avenue. Residential uses line the south side of the roadway with driveway access from individual residences. The posted speed limit is 25 mph. Street parking is permitted on both sides of the street in the project proximity.

Existing Bicycle and Pedestrian Facilities

Bicycle facilities are classified in three ways: off-street bike paths separated from auto traffic (Class I), on-street striped bike lanes (Class II), and on-street signed bike routes in which bicycles share the roadway with other vehicles (Class III). Figure 3 shows the existing bicycle facilities in the vicinity of the project site. Bike lanes and routes are provided intermittently along Middlefield Road in the vicinity of the project site. In the project proximity, there are no designated bike lanes or bike routes provided on any of the local streets within the North Fair Oaks neighborhood. However, these local streets carry low traffic volume and are conducive to bicyclists.

The *San Mateo County Comprehensive Bicycle and Pedestrian Plan* (September 2011) proposes future designation of 5th Avenue (between Middlefield road and Bay Road) and Bay Road (between Charter Street and 5th Avenue) as Class III bike routes within the study area. Based on the Redwood City *General Plan*, Figure BE-12 Bikeway Plan, the City has planned Class II bike lanes or III bike routes along 2nd Avenue, 5th Avenue, Bay Road, and Middlefield Road in the project vicinity.

Pedestrian facilities in the study area include crosswalks at intersections, actuated pedestrian signals, and sidewalks. Crosswalks and actuated pedestrian signals are provided at all signalized study intersections, with the exception of the intersection of 5th Avenue and Semicircular Road.

Crosswalks are not provided at most of the unsignalized study intersections, except at the following locations:

- Crosswalks are present at all directions of 2nd Avenue/Bay Road and 5th Avenue/Bay Road intersections.
- Crosswalks are present in the west leg of 2nd Avenue/Middlefield Road and Fair Oaks Avenue/San Benito Avenue intersections.

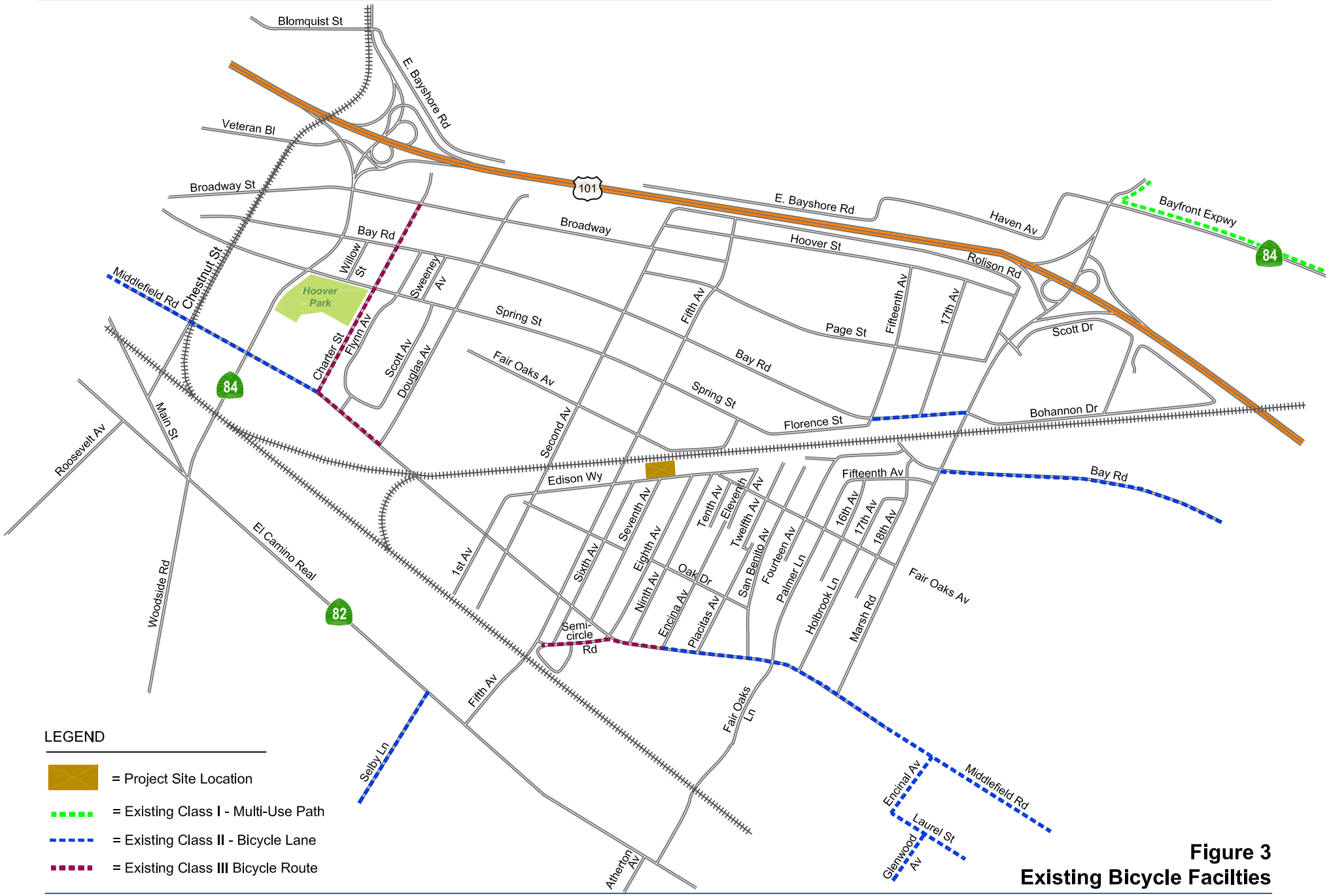


Figure 3
Existing Bicycle Facilties

Figure 4
Existing Transit Services

Sidewalks are provided intermittently throughout the project vicinity. With the exception of First Avenue, 5th Avenue, and Edison Way west of 5th Avenue, no sidewalks are provided on any of the local streets within the North Fair Oaks neighborhood bounded by Edison Way, First Avenue, Middlefield Road, and Marsh Road.

In the project vicinity, the following streets have no sidewalks:

- Edison Way between 5th Avenue and 11th Avenue
- Fair Oaks Avenue
- 2nd Avenue between Middlefield Road and Edison Way
- Woodside Road
- Marsh Road between Middlefield Road and Fair Oaks Avenue
- Middlefield Road between 9th Avenue and Marsh Road

Existing Transit Service

Existing transit service to the study area is provided by the San Mateo County Transit District (SamTrans). The existing SamTrans service is described below and shown on Figure 4. Route 79 is the only bus route that has stops within the typically assumed walking distance (one quarter mile) in the morning. Route 296 has stops 0.4 mile from the school and all other bus routes have stops more than one-half mile away. Because Route 79 only runs on school days and has limited runs in the morning and afternoon and the school is not near a major transit center, the project site is considered to be unserved by transit.

Route 79 only runs on school days between 17th Avenue/Florence Street and Kennedy Middle School in Redwood City. In the morning, it provides three westbound runs between 7:03 a.m. and 8:08 a.m. with the closest stop on Fair Oaks Avenue at 5th Avenue, about one quarter mile from the school. In the afternoon, it provides three eastbound runs between 2:03 p.m. and 4:42 p.m. with the closest stop on 5th Avenue at Spring Street, about 0.4 mile from the school.

Route 82 only runs on school days between Bay Road/Marsh Road and Hillview Middle School in Menlo Park, with the closest stop on Bay Road near Marsh Road about 0.9 mile from the school. It provides one run in the morning and two runs in the afternoon.

Route 88 only runs on school days between Bay Road/Marsh Road and Encinal Elementary School in Atherton, with the closest stop on Bay Road near Marsh Road about 0.9 mile from the school. It provides one run in the morning and two runs in the afternoon.

Route 270 provides weekday and Saturday service between the Redwood City Transit Center and East Bayshore Road/Haven Avenue in Redwood City and stops along Florence Street and Bay Road in the project vicinity. It runs at 60-minute headways between 6:30 a.m. and 7:12 p.m. on weekdays. The closest stop is located on Bay Road near 5th Avenue, about 0.6 mile from the school.

Route 276 provides weekday service between the Redwood City Transit Center and 17th Avenue/Florence Street in Redwood City and stops along Florence Street and Bay Road in the project vicinity. It runs at 60-minute headways between 6:00 a.m. and 6:46 p.m. The closest stop is located on Bay Road near 5th Avenue, about 0.6 mile from the school.

Route 296 provides weekday and weekend service between Redwood City Transit Center and East Bayshore Road/Donohoe Street in East Palo Alto and stops along Middlefield Road in the project vicinity. On weekdays, it runs all day from 3:46 a.m. to 2:44 a.m. with 17-minute headways during the peak commute hours and daytime hours. The closest stop is located on Middlefield Road near 5th Avenue, about 0.4 mile from the school.

Route ECR is an express/multi-city route that provides weekday and weekend service between the Daly City BART Station and the Palo Alto Transit Center and stops along El Camino Real in the project vicinity. On weekdays, it runs all day with 20- to 25-minute headways during the peak commute hours and daytime hours. The closest stop is located on El Camino Real near 5th Avenue, about 0.9 mile from the school.

Existing Lane Configurations and Traffic Volumes

The existing lane configurations at the study intersections were obtained from field observations (see Figure 5). Existing traffic volumes were obtained from manual peak-hour turning-movement counts on weekdays in September 2018 (see Figure 6). Peak-hour intersection turning movement counts of vehicles, bicycles, and pedestrians were collected during the morning peak period (7:00 - 9:00 AM) and afternoon school peak period (2:00 - 4:00 PM). The 2:00 - 4:00 PM peak period was selected to account for traffic levels encountered during typical school pick-up activity occurring during this time period. The traffic counts are included in Appendix B.

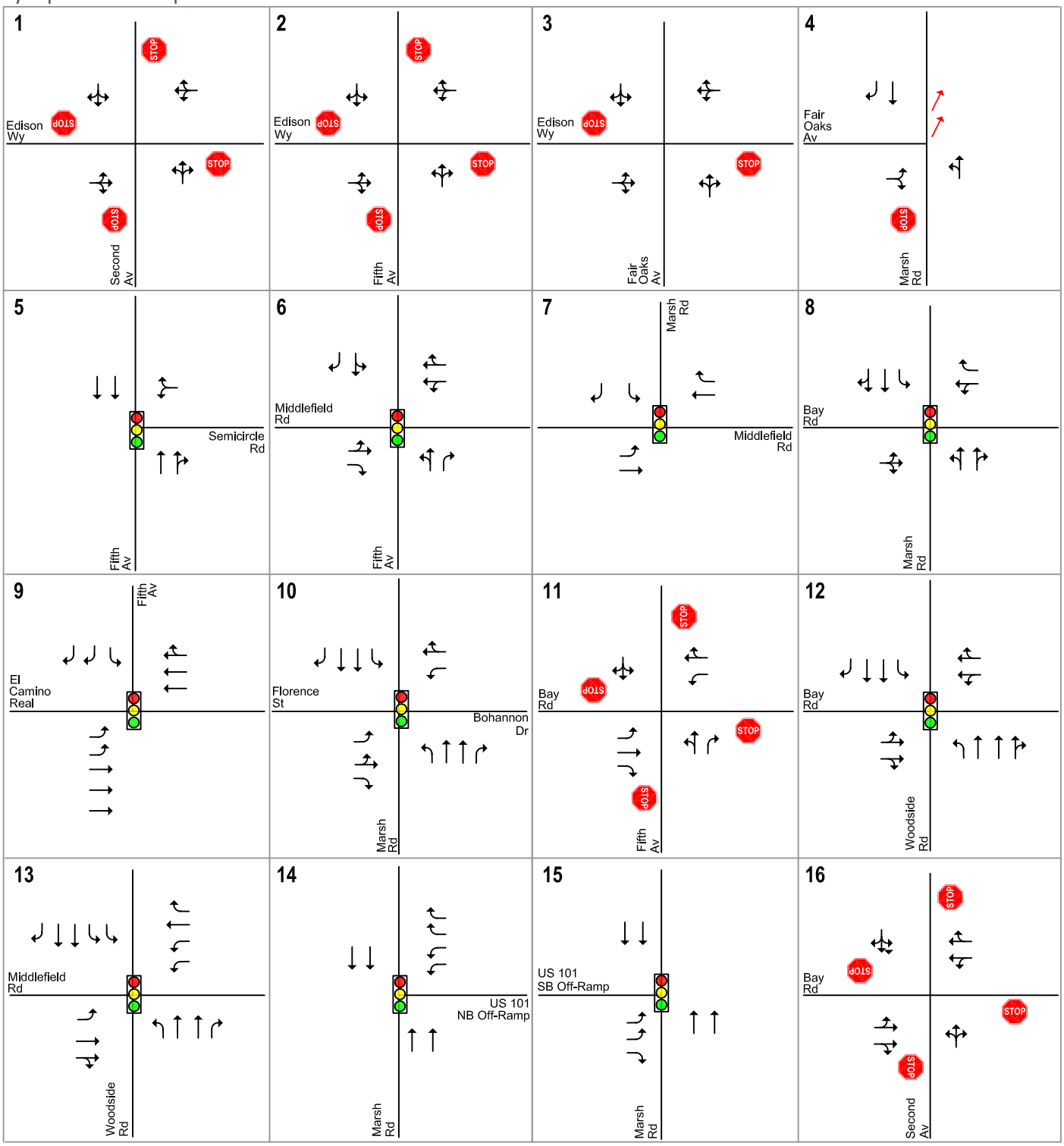
Existing Intersection Levels of Service

The results of the intersection level of service analysis (Table 3) show that under the existing conditions, all study intersections are operating within applicable level of service standards, with the following exceptions:

- Woodside Road and Bay Road (Redwood City): LOS F in the AM peak hour.
- 2nd Avenue and Middlefield Road (San Mateo County): LOS E in the AM peak hour on the worst stop-controlled approach.

At the intersection of Woodside Road and Bay Road, due to the short distance to the Woodside Road/Broadway Street intersection and the US 101/Woodside Road interchange, the northbound vehicle queues from the downstream intersections often are not cleared during green lights and affect the northbound traffic flow at the intersection. To be consistent with the City of Redwood City Broadway Plaza Draft EIR (November 2018), the level of service calculations were adjusted to reflect the northbound vehicle queues and delay at the Woodside Road/Bay Road intersection.

The level of service calculation sheets are included in Appendix D.



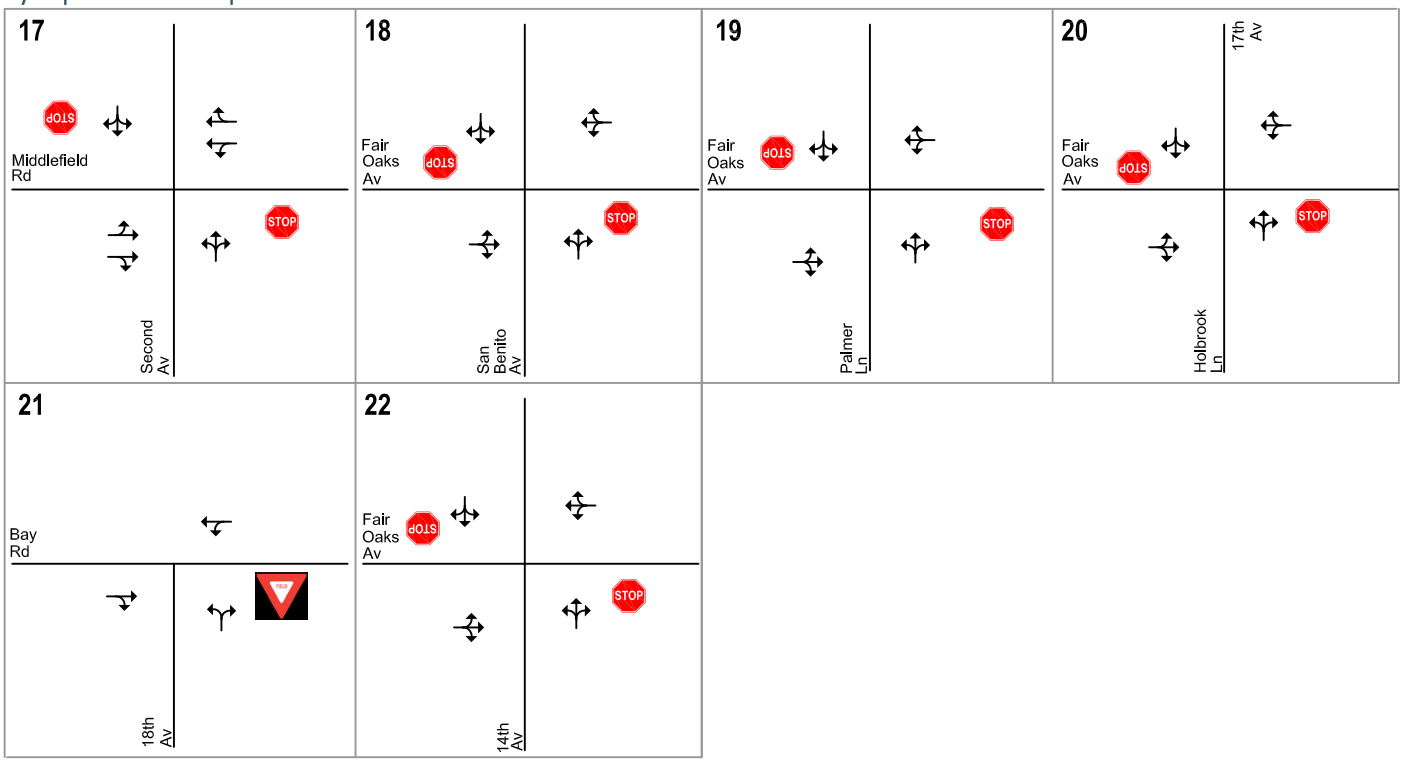
LEGEND

= Stop Controlled Intersection

= Signalized Intersection

Figure 5
Existing Lane Configurations

NORTH
Not to Scale



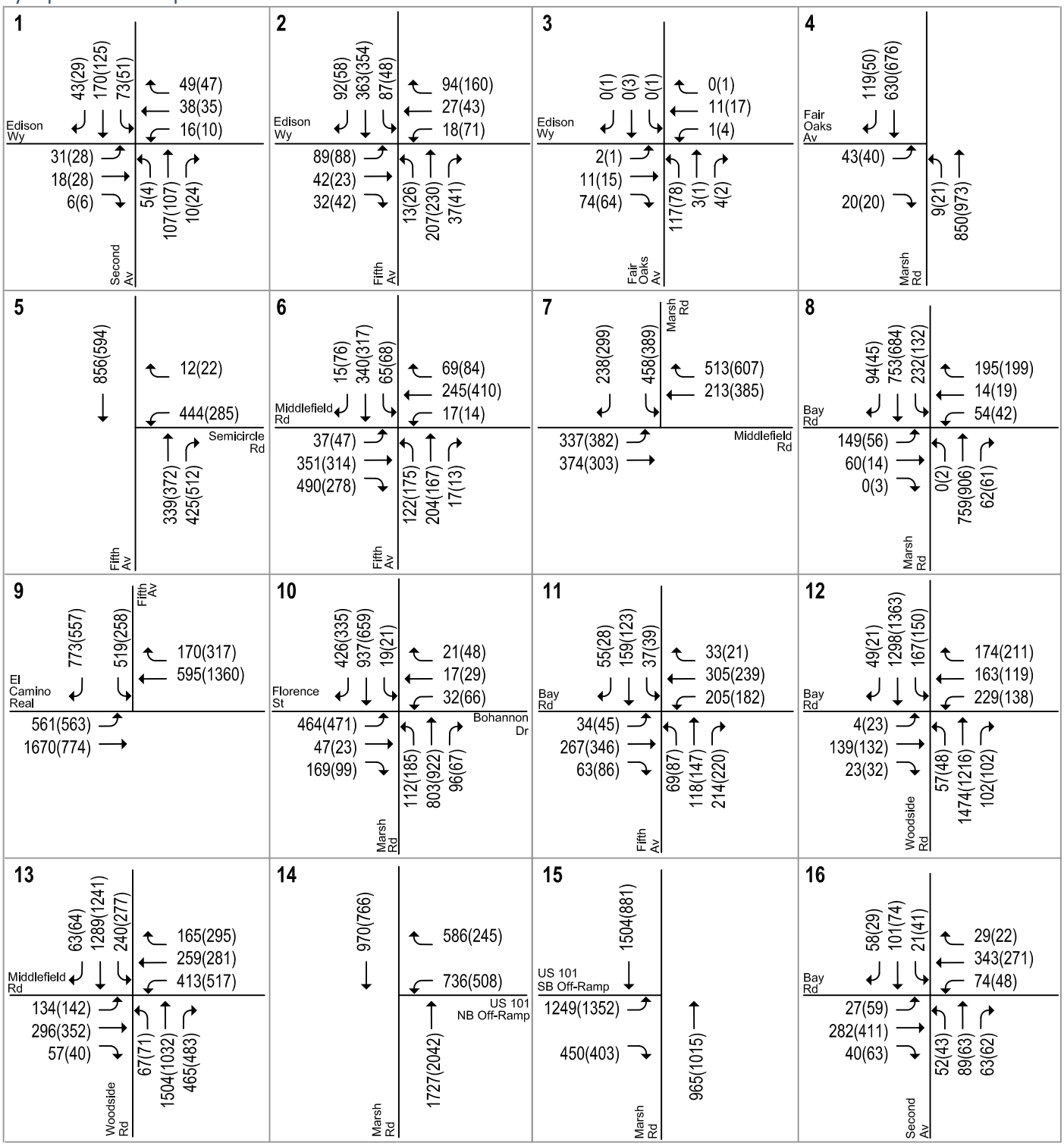
LEGEND

= Stop Controlled Intersection

= Signalized Intersection

= Yield Sign

Figure 5
Existing Lane Configurations



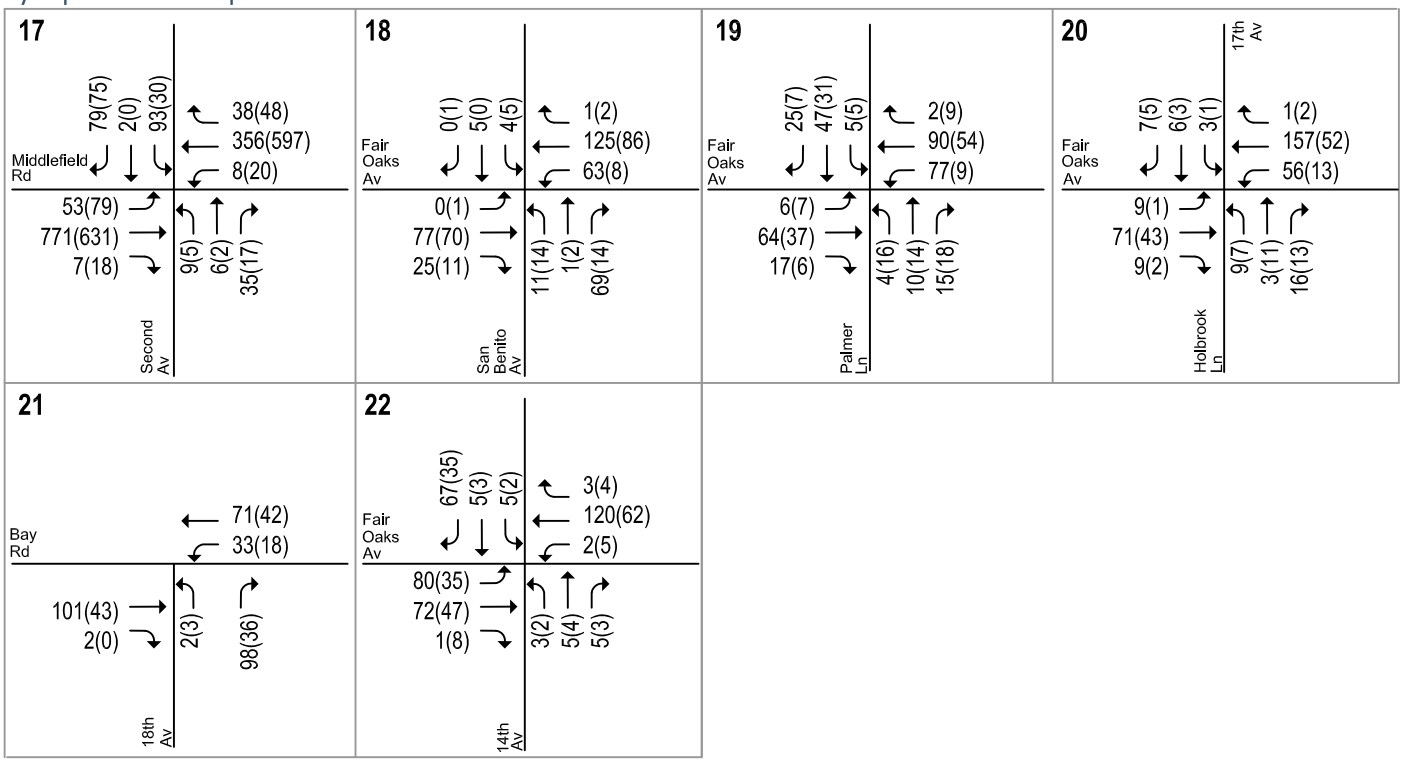
LEGEND

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

Figure 6
Existing Traffic Volumes

HEXAGON

NORTH
Not to Scale



LEGEND

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

Figure 6
Existing Traffic Volumes

Table 3
Existing Intersection Levels of Service

ID	Intersection (Jurisdiction)	Control	Peak Hour	Average[1] Delay (sec.)	Average[1] LOS	Worst[2] Delay (sec.)	Worst[2] LOS
1	2nd Ave and Edison Wy	AWSC	AM	9.1	A	9.8	A
	(San Mateo County)		PM	8.5	A	8.9	A
2	5th Ave and Edison Wy	AWSC	AM	18.3	C	24.9	C
	(San Mateo County)		PM	18.8	C	25.0	C
3	Fair Oaks Ave and Edison Wy	OWSC	AM			9.5	A
	(San Mateo County)		PM			9.4	A
4	Fair Oaks Ave and Marsh Rd	OWSC	AM			16.9	C
	(San Mateo County)		PM			18.8	C
5	5th Ave and Semicircle Rd	Signal	AM	7.3	A	10.1	A
	(San Mateo County)		PM	5.4	A	8.7	A
6	5th Ave and Middlefield Rd	Signal	AM	24.9	C	36.8	D
	(San Mateo County)		PM	26.2	C	37.4	D
7	Marsh Rd and Middlefield Rd	Signal	AM	29.3	C		
	(Atherton)		PM	32.1	C		
8	Marsh Rd and Bay Rd	Signal	AM	24.1	C		
	(Menlo Park)		PM	33.2	C		
9	5th Ave and El Camino Real	Signal	AM	19.2	B	34.3	C
	(San Mateo County)		PM	19.7	B	31.9	C
10	Marsh Rd and Florence St	Signal	AM	37.9	D		
	(Menlo Park)		PM	39.0	D		
11	5th Ave and Bay Rd	AWSC	AM	30.6	D		
	(Redwood City)		PM	29.1	D		
12	Woodside Rd and Bay Rd	Signal	AM	**81.2**	**F**		
	(Redwood City)		PM	47.1	D		
13	Woodside Rd and Middlefield Rd	Signal	AM	41.9	D		
	(Redwood City/CMP)		PM	35.3	D		
14	Marsh Rd and US 101 NB Off-ramp	Signal	AM	17.6	B		
	(Menlo Park)		PM	13.5	B		
15	Marsh Rd and US 101 SB Off-ramp	Signal	AM	17.4	B		
	(Menlo Park)		PM	17.8	B		
16	2nd Ave and Bay Rd	AWSC	AM	12.7	B		
	(Redwood City)		PM	12.6	B		
17	2nd Ave and Middlefield Rd	TWSC	AM			**40.9**	**E**
	(San Mateo County)		PM			26.3	D
18	San Benito Ave and Fair Oaks Ave	TWSC	AM			11.9	B
	(San Mateo County)		PM			9.7	A
19	Palmer Ln and Fair Oaks Ave	TWSC	AM			11.5	B
	(San Mateo County)		PM			9.9	A
20	Holbrook Ln and Fair Oaks Ave	TWSC	AM			10.7	B
	(San Mateo County)		PM			9.3	A

ID	Intersection (Jurisdiction)	Control	Peak Hour	Average[1] Delay (sec.)	Average[1] LOS	Worst[2] Delay (sec.)	Worst[2] LOS
21	18th Ave and Bay Rd	OWSC[3]	AM			9.3	A
	(San Mateo County)		PM			8.7	A
22	14th Avee and Fair Oaks Ave	TWSC	AM			10.8	B
	(San Mateo County)		PM			9.8	A

Notes:
AWSC = all-way stop controlled intersection; TWSC = two-way stop controlled intersection;
OWSC = one-way stop controlled intersection.
1. Average intersection delay and LOS are reported for signalized and all-way stop controlled intersections.
2. Worst movement delay and LOS are reported for signalized and unsignalized intersections in the San Mateo County.
3. The intersection of 18th Ave and Bay Rd is yield controlled for the northbound appporach, but analyzed as an OWSC.
Bold indicates a substandard level of service.

3.
Existing Plus Project Conditions

This chapter describes existing plus project traffic conditions, including the method by which project traffic is estimated.

Roadway Network Under Existing Plus Project Conditions

It is assumed in this analysis that the roadway network under existing plus project conditions would be the same as the existing roadway network.

Project Trip Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the site is estimated for the AM and PM peak hours. As part of the project trip distribution, an estimate is made of the directions to and from which the project trips would travel. In the project trip assignment, the project trips are assigned to specific streets. These procedures are described further in the following sections.

Trip Generation

The magnitude of traffic produced by a new development is typically estimated by applying the size of the project to the applicable trip generation rates contained in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*. However, because the project involves the expansion of the existing school operations and the ITE manual does not provide trip rates that would truly represent the existing school operations, the trips generated by the proposed school expansion were estimated based on trip generation rates obtained from a trip generation count at the existing school in September 2018. The trip generation counts are included in Appendix C.

Table 4 shows the trip generation counts were 275 trips (157 inbound and 118 outbound) during the AM peak hour and 203 trips (101 inbound and 102 outbound) during the PM school peak hour. During the trip generation counts in 2018, the school operated 9 shuttles serving 72 students in the morning and 4 shuttles serving 20 students in the afternoon. In the morning, the shuttle program resulted in 182 non-shuttle students. The 275 AM peak-hour trips can be calculated at 1.51 trips per non-shuttle student, which calculates to about 45 students carpooling (25 percent of non-shuttle students).

Based on the trip counts, at the beginning of the school day (AM peak hour between 8:00 and 9:00 AM) the trip generation rate for the existing school operation was calculated to be 1.08 trips per student with 57% inbound trips and 43% outbound trips. At the end of the school day (school PM peak hour between 3:00 and 4:00 PM), the trip generation rate was calculated to be 0.8 trips per student with the split at 50% inbound and 50% outbound. The trip rates account for the shuttle program that is being implemented at the school.

With the expansion, the school would increase the enrollment to 310 students. Off the 310 students, 30 students would be pre-school students that would start at the same hour as K-8 students and would be dismissed at 2:00 PM. Pre-school students would not take shuttles. The school expects that one third of pre-school students to carpool with siblings, so the 20 non-carpooling pre-school students (two thirds of 30 pre-school students) are expected to generate 40 AM peak-hour trips (20 non-carpooling students x 2 trips per student) and would not generate any school PM peak-hour trips. Therefore, a rate of 1.33 trips per student was calculated for the pre-school students (40 trips / 30 students). The school trips for the 280 K-8 students were estimated using the trip generation rates observed for the current school. The proposed expansion is estimated to generate an increase of 68 AM peak-hour trips (36 inbound and 32 outbound) and 21 school PM peak-hour trips (10 inbound and 11 outbound).

Table 4
Project Trip Generation Estimates

			AM Peak Hour						School PM Peak Hour					
			Pk-Hr	Splits					Pk-Hr	Splits				
Land Use	Size	Units	Rate	In	Out	In	Out	Total	Rate	In	Out	In	Out	Total
Proposed Use														
Private K-8[1]	280	students	1.08	57%	43%	173	130	303	0.80	50%	50%	111	113	224
Pre-School[2]	30	students	1.33	50%	50%	20	20	40				0	0	0
Gross Proposed Use	*310*					*193*	*150*	*343*				*111*	*113*	*224*
Existing Use														
Private K-8[1]	254	students	1.08	57%	43%	(157)	(118)	(275)	0.80	50%	50%	(101)	(102)	(203)
Net New Trips:						**36**	**32**	**68**				**10**	**11**	**21**

Notes:
1. Peak-hour trips are based on the trip generation counts conducted at the existing school in September 2018.
2. The AM peak-hour trips reflect 1/3 of pre-school students that would carpool. Pre-school students would not generate the school PM peak-hour trips because they would be dismissed at 2:00 PM.

School Shuttle Program

The school currently operates 10 shuttles serving 87 students in the morning and 5 shuttles serving 36 students in the afternoon.

Morning Shuttle Routes

All shuttles arrive at the school at around 8:30 AM.

- Burlingame/Hillsborough (1 Van/8 Students) – Pick-up Location: Cal Trans Park & Ride, 1698 Golf Course Drive, Burlingame, CA 94010. Departure Time: 7:50 AM.
- Los Altos/Mountain View (1 Van/10 Students) – Pick-up Location: McKenzie Park Tennis Court, 707 Fremont Avenue, Los Altos, CA 94024. Departure Time: 7:45 AM.
- Palo Alto 1 (6 Vans/45 Students) – Pick-up Location: Palo Alto Art Center, 1313 Newel Road, Palo Alto, CA 94303. Departure Time: 8:10 AM.

- Sunnyvale/Palo Alto 2 (1 Van/11 Students) – Pick-up Location #1: Serra Park Tennis Courts, 1563 Hollenbeck Ave, Sunnyvale, CA 94085. Departure Time: 7:40 AM. Pick-up Location #2: El Camino Park, 155 El Camino Real, Palo Alto, CA 94301. Departure Time: 8:10 AM.
- Woodside (1 Vans/13 Students) – Pick-up Location: Park & Ride, Woodside Road & I-280. Departure Time: 8:00 AM.

Afternoon Shuttle Routes

All shuttles depart the school at 3:50 PM on Monday through Thursday and at 2:50 PM on Friday.

- Burlingame/Hillsborough (1 Van/7 Students): Drop-off Location: Cal Trans Park & Ride, 1698 Golf Course Drive, Burlingame, CA 94010. Estimated Drop-off Time: 4:10 PM on Monday – Thursday and 3:10 PM on Friday.
- Los Altos/Mountain View (1 Van/9 Students) – Drop-off Location: McKenzie Park Tennis Court, 707 Fremont Avenue, Los Altos, CA 94024. Estimated Drop-off Time: 4:15 PM on Monday – Thursday and 3:15 PM on Friday.
- Palo Alto 1 (3 Vans/20 Students): Drop-off Location: Palo Alto Art Center, 1313 Newel Road, Palo Alto, CA 94303. Estimated Drop-off Time: 4:05 PM on Monday – Thursday and 3:05 PM on Friday.

Trip Distribution and Assignment

The trip distribution pattern (see Figure 3) for the proposed expansion was estimated based on the trip distribution pattern developed for the Synapse School's previous expansion (TIA prepared in 2017). The net peak-hour trips generated by the project were assigned to the roadway system in accordance with the trip distribution pattern shown. Figure 8 shows the assignment of project trips at each study intersection.

Existing Plus Project Traffic Volumes

The new project trips, as represented in the above project trip assignment, were added to existing traffic volumes to obtain existing plus project traffic volumes. The existing plus project traffic volumes are shown in Figure 9.

Existing Plus Project Intersection Levels of Service

The results of the intersection level of service analysis (see Table 6) show that the same study intersections would operate at unacceptable levels of service as under existing conditions. The added project trips would not cause these intersections to exceed the applicable significance impact thresholds. All other study intersections would operate at acceptable levels during both the AM and PM peak hours of traffic. Therefore, the project would not result in a significant traffic impact under existing plus project conditions.

The level of service calculation sheets are included in Appendix D.

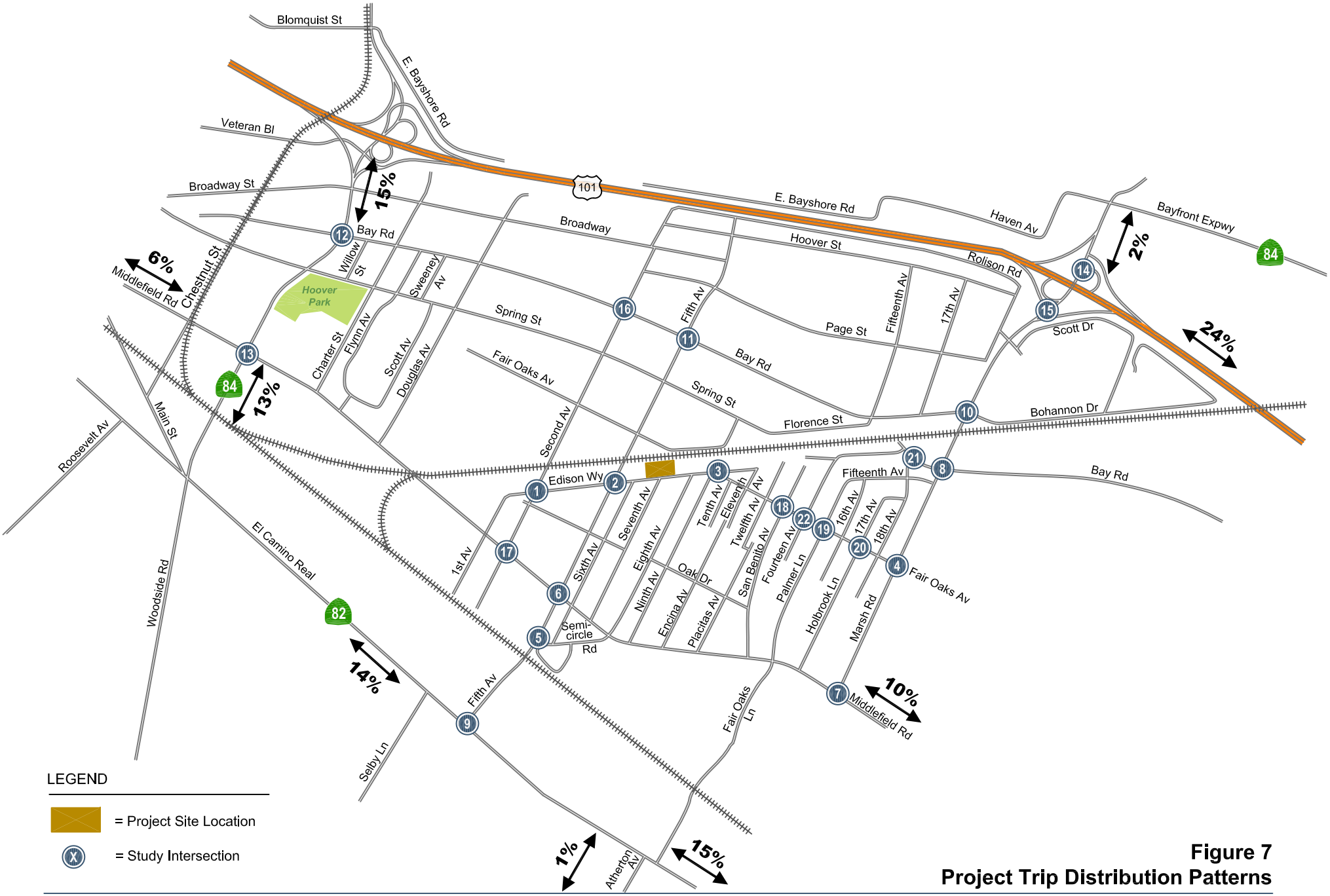
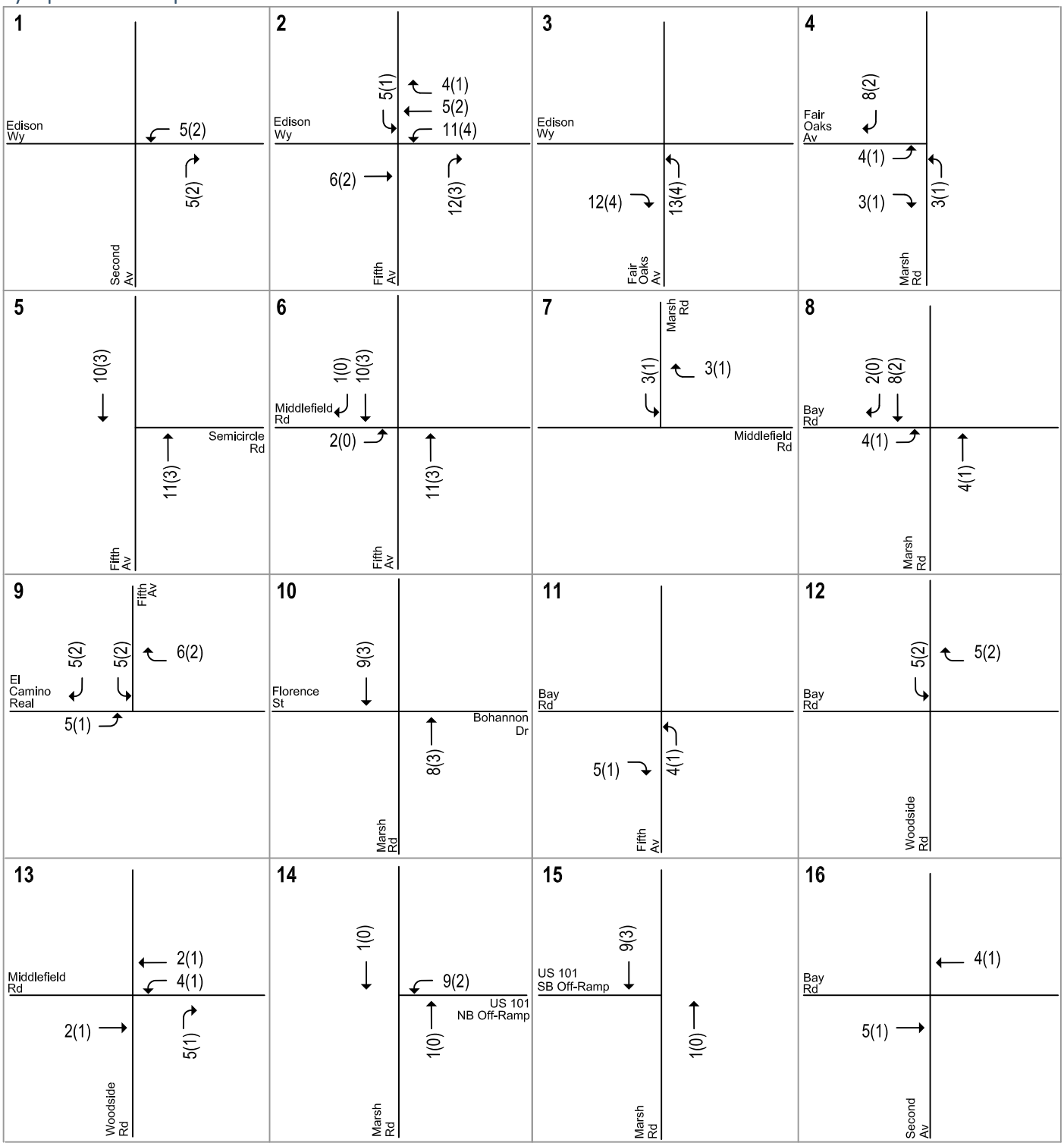


Figure 7
Project Trip Distribution Patterns

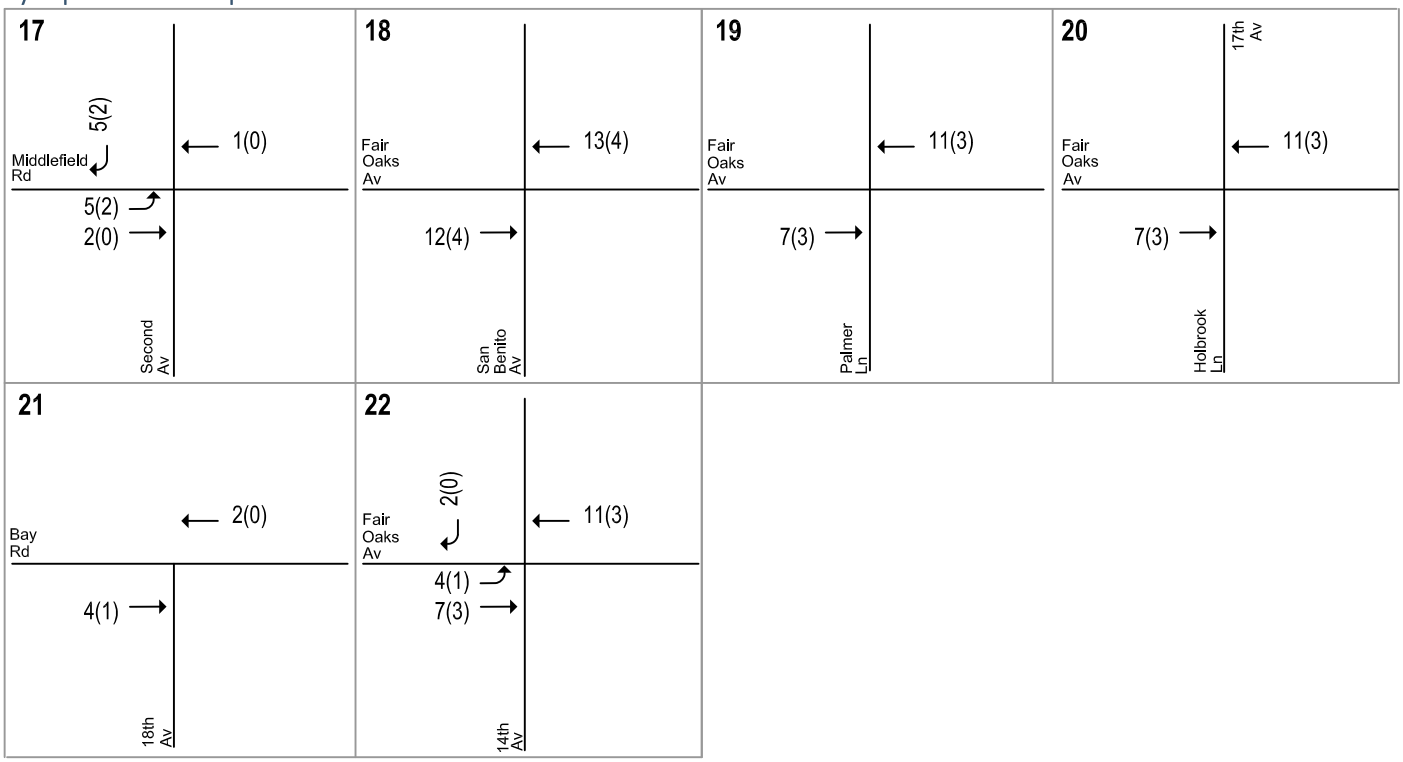
HEXAGON



LEGEND

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

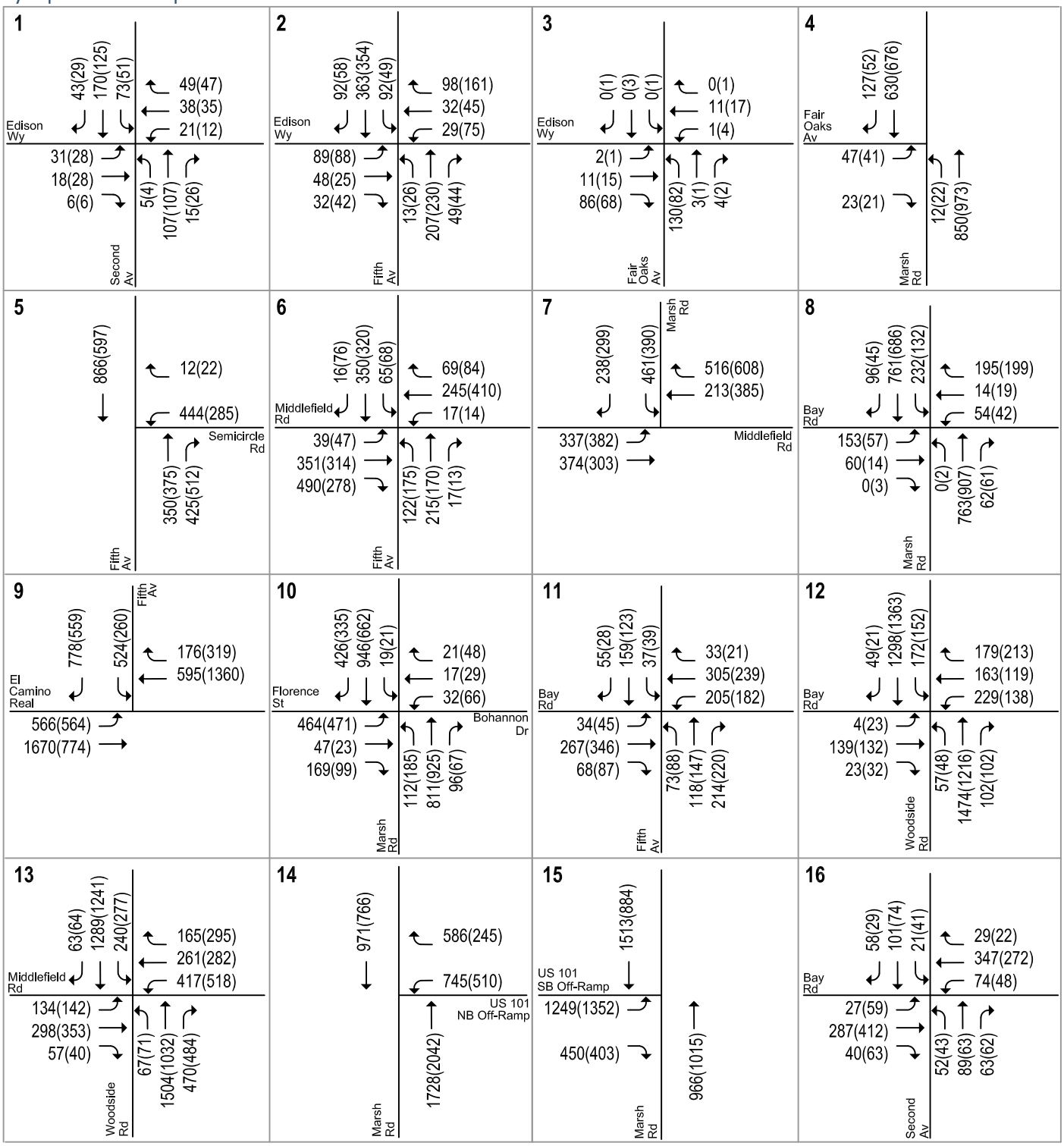
Figure 8
Project Trip Assignment



LEGEND

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

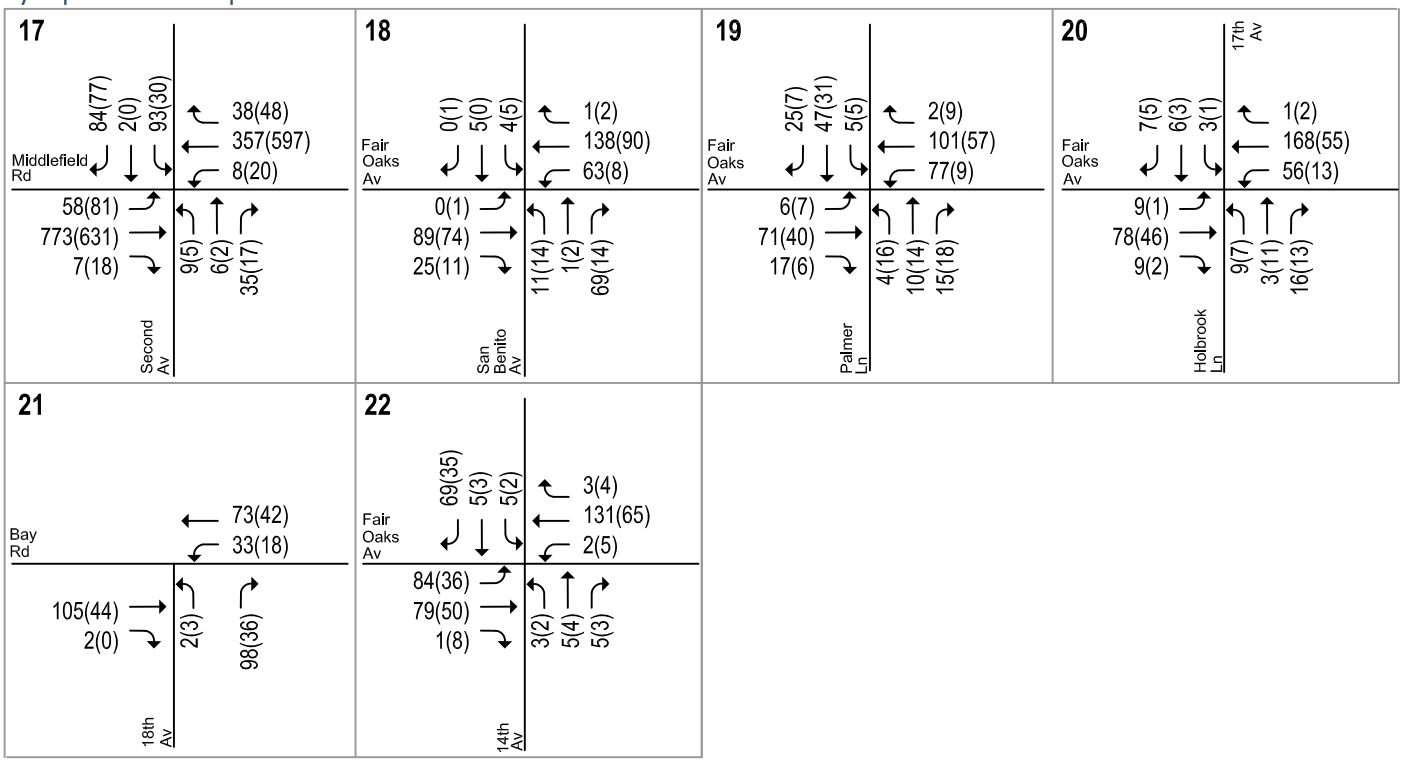
Figure 8
Project Trip Assignment



LEGEND

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

Figure 9
Existing Plus Project Traffic Volumes



LEGEND

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

Figure 9
Existing Plus Project Traffic Volumes

Table 5
Existing Plus Project Intersection Levels of Service

				Existing				Existing + Project			
				Average[1]		Worst[2]		Average[1]		Worst[2]	
ID	Intersection (Jurisdiction)	Control	Peak Hour	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS
1	2nd Ave and Edison Wy	AWSC	AM	9.1	A	9.8	A	9.2	A	9.9	A
	(San Mateo County)		PM	8.5	A	8.9	A	8.5	A	8.9	A
2	5th Ave and Edison Wy	AWSC	AM	18.3	C	24.9	C	20.1	C	28.1	D
	(San Mateo County)		PM	18.8	C	25.0	C	19.3	C	25.8	D
3	Fair Oaks Ave and Edison Wy	OWSC	AM			9.5	A			9.6	A
	(San Mateo County)		PM			9.4	A			9.4	A
4	Fair Oaks Ave and Marsh Rd	OWSC	AM			16.9	C			17.3	C
	(San Mateo County)		PM			18.8	C			18.9	C
5	5th Ave and Semicircle Rd	Signal	AM	7.3	A	10.1	A	7.3	A	10.2	B
	(San Mateo County)		PM	5.4	A	8.7	A	5.4	A	8.7	A
6	5th Ave and Middlefield Rd	Signal	AM	24.9	C	36.8	D	25.5	C	37.0	D
	(San Mateo County)		PM	26.2	C	37.4	D	26.4	C	37.6	D
7	Marsh Rd and Middlefield Rd	Signal	AM	29.3	C			29.5	C		
	(Atherton)		PM	32.1	C			32.2	C		
8	Marsh Rd and Bay Rd	Signal	AM	24.1	C			24.2	C		
	(Menlo Park)		PM	33.2	C			33.2	C		
9	5th Ave and El Camino Real	Signal	AM	19.2	B	34.3	C	19.4	B	34.6	C
	(San Mateo County)		PM	19.7	B	31.9	C	19.8	B	32.0	C
10	Marsh Rd and Florence St	Signal	AM	37.9	D			37.8	D		
	(Menlo Park)		PM	39.0	D			39.0	D		
11	5th Ave and Bay Rd	AWSC	AM	30.6	D			30.9	D		
	(Redwood City)		PM	29.1	D			29.2	D		
12	Woodside Rd and Bay Rd	Signal	AM	**81.2**	**F**			**81.7**	**F**		
	(Redwood City)		PM	47.1	D			47.2	D		
13	Woodside Rd and Middlefield Rd	Signal	AM	41.9	D			42.2	D		
	(Redwood City/CMP)		PM	35.3	D			35.3	D		
14	Marsh Rd and US 101 NB Off-ramp	Signal	AM	17.6	B			17.6	B		
	(Menlo Park)		PM	13.5	B			13.5	B		
15	Marsh Rd and US 101 SB Off-ramp	Signal	AM	17.4	B			17.4	B		
	(Menlo Park)		PM	17.8	B			17.8	B		
16	2nd Ave and Bay Rd	AWSC	AM	12.7	B			12.8	B		
	(Redwood City)		PM	12.6	B			12.6	B		
17	2nd Ave and Middlefield Rd	TWSC	AM			**40.9**	**E**			**43.2**	**E**
	(San Mateo County)		PM			26.3	D			26.3	D
18	San Benito Ave and Fair Oaks Ave	TWSC	AM			11.9	B			12.2	B
	(San Mateo County)		PM			9.7	A			9.7	A
19	Palmer Ln and Fair Oaks Ave	TWSC	AM			11.5	B			11.6	B
	(San Mateo County)		PM			9.9	A			9.9	A
20	Holbrook Ln and Fair Oaks Ave	TWSC	AM			10.7	B			10.8	B
	(San Mateo County)		PM			9.3	A			9.3	A

ID	Intersection (Jurisdiction)	Control	Peak Hour	Existing				Existing + Project			
				Average[1]		Worst[2]		Average[1]		Worst[2]	
				Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS
21	18th Ave and Bay Rd	OWSC[3]	AM			9.3	A			9.3	A
	(San Mateo County)		PM			8.7	A			8.7	A
22	14th Avee and Fair Oaks Ave	TWSC	AM			10.8	B			11.0	B
	(San Mateo County)		PM			9.8	A			9.8	A

Notes:
1. Average intersection delay and LOS are reported for signalized and all-way stop controlled intersections.
2. Worst movement delay and LOS are reported for signalized and unsignalized intersections in the San Mateo County.
3. The intersection of 18th Ave and Bay Rd is yield controlled for the northbound appporach, but analyzed as an OWSC.
Bold indicates a substandard level of service.

4. Background Conditions

This chapter describes background traffic conditions, which are defined as conditions that include approved development projects in the study area. Traffic volumes for background conditions comprise volumes from the existing traffic counts plus traffic generated by approved projects in the vicinity of the project site. This chapter describes the procedure used to determine background traffic volumes and the resulting traffic conditions.

Roadway Network Under Background Conditions

It is assumed in this analysis that the roadway network under background conditions would be the same as the existing roadway network.

Approved Developments

Background traffic volumes were forecast by adding trips from approved but not yet completed projects to the existing volumes. The list of approved projects was obtained from the Cities of Redwood City and Menlo Park. The following projects were considered under background conditions because they would contribute background trips to the study intersections.

- Kaiser Medical Office Building 2 (1175 Marshall Street/905 Maple Street) – 197,800 s.f. medical office.
- W. L. Butler Headquarters (1629 Main Street) – 23,170 s.f. office building with two apartment units.
- Greystar IV (1409 El Camino Real) – 350 multi-family residential units with 2,900 s.f. retail.
- 851 Main St – 78,832 s.f. office and 6,900 s.f. retail.
- Broadway Station RWC (2075 Broadway Street) – 66,786 s.f. office and 26,729 s.f. retail.
- Stanford in Redwood City (405 Broadway Street) – 570,000 s.f. medical office with a fitness center and child care facility and related supporting facilities.
- Facebook Campus Expansion (300-309 Constitution Drive) – 962,400 s.f. office.
- Middle Plaza (500 El Camino Real) – 10,286 s.f. retail/restaurant, 142,840 s.f. non-medical office, and 215 residential units.
- Menlo Gateway (100-190 Independence Drive and 101-155 Constitution Drive) – 4,245 s.f. cafe/restaurant, 68,519 s.f. health club, 230-room hotel, 10,420 s.f. neighborhood-serving retail and community facilities, and 694,669 s.f. office and R&D.
- Station 1300 (1300 El Camino Real) – 220,000 s.f. commercial space and 183 residential units.

Background Traffic Volumes

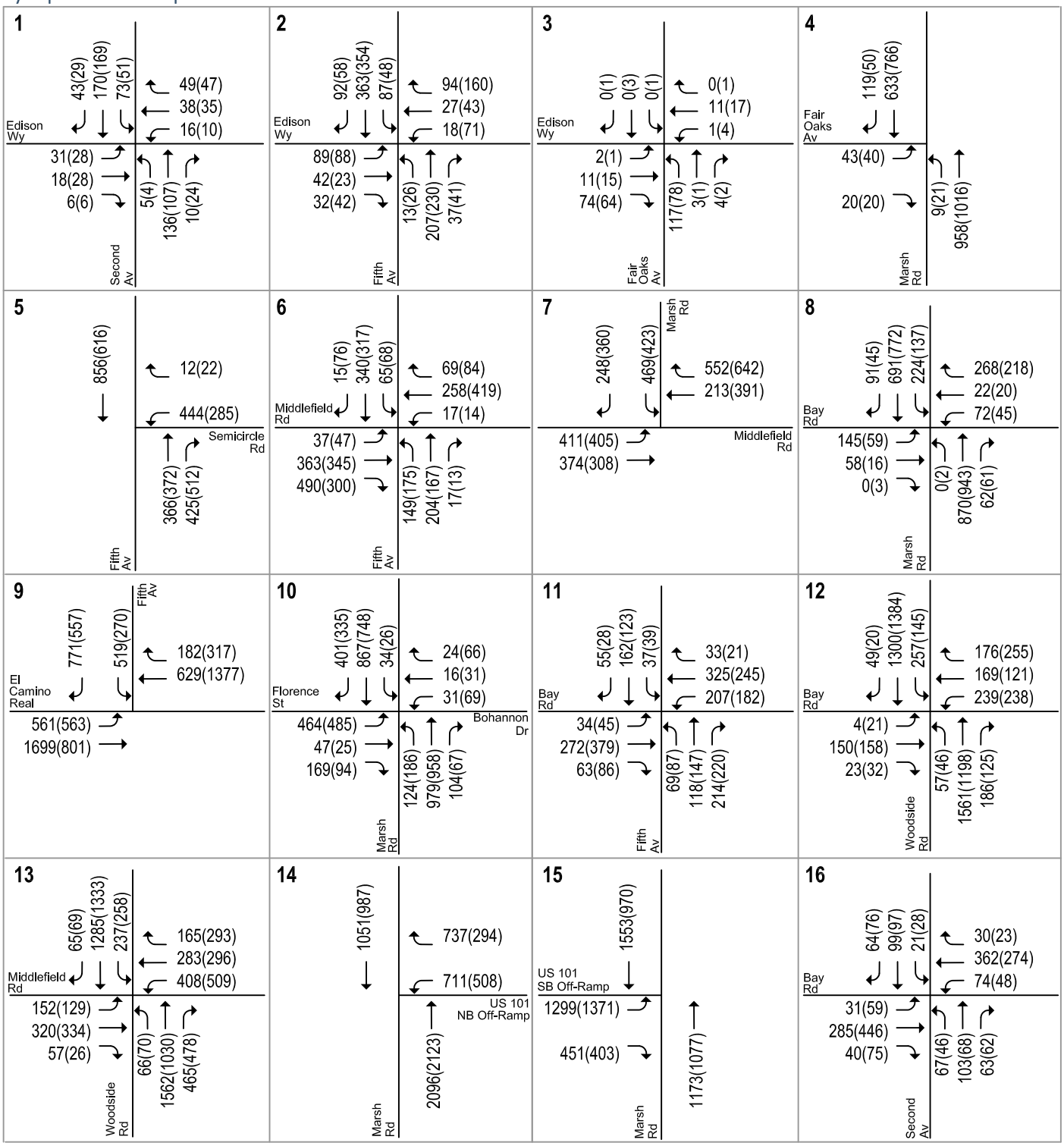
Background peak-hour traffic volumes (see Figure 10) were calculated by adding to existing volumes the estimated traffic from the approved developments. Vehicle trips for each of the projects were obtained from the project's TIA or environmental impact report (EIR). These traffic studies evaluate traffic conditions during the AM and PM peak hours of commute traffic. Therefore, the PM peak-hour trips were reduced by 10 percent to derive the school PM peak-hour trips. The estimated trips were assigned to the study intersections according to distributions identified in the development TIAs and EIRs.

Background Intersection Levels of Service

The results of the intersection level of service analysis (see Table 6) show that under background conditions, the following study intersections are expected to operate worse than acceptable jurisdictional standards:

- 5th Avenue and Bay Road (Redwood City): LOS E in the PM school peak hour.
- Woodside Road and Bay Road (Redwood City): LOS F in the AM peak hour and PM school peak hour.
- 2nd Avenue and Middlefield Road (San Mateo County): LOS E in the AM peak hour and LOS F in the PM school peak hour on the worst stop-controlled approach.

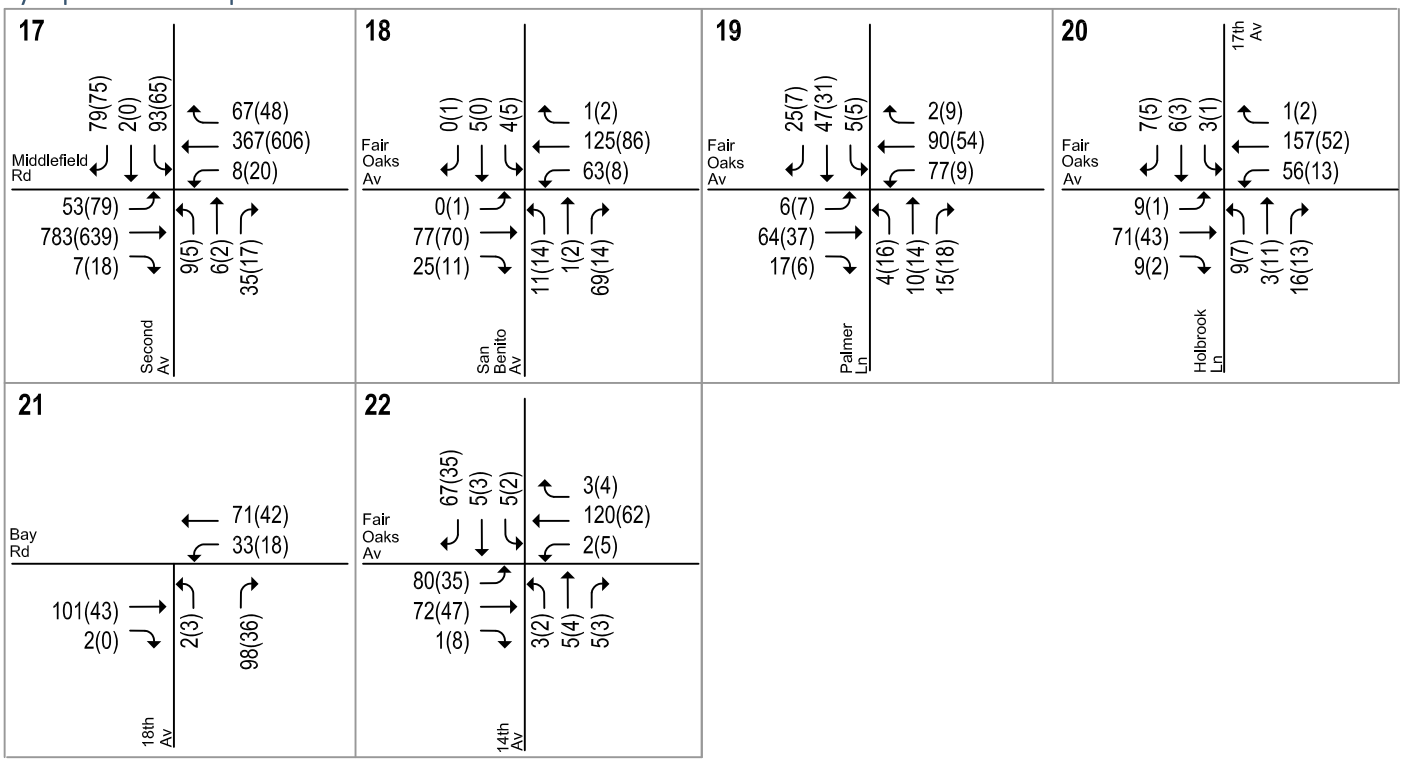
The level of service calculation sheets are included in Appendix D.



LEGEND

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

Figure 10
Background Traffic Volumes



LEGEND

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

Figure 10
Background Traffic Volumes

Table 6
Intersection Levels of Service Under Background Conditions

ID	Intersection (Jurisdiction)	Control	Peak Hour	Existing Average[1] Delay (sec.)	Existing Average[1] LOS	Existing Worst[2] Delay (sec.)	Existing Worst[2] LOS	Background Average[1] Delay (sec.)	Background Average[1] LOS	Background Worst[2] Delay (sec.)	Background Worst[2] LOS
1	2nd Ave and Edison Wy	AWSC	AM	9.1	A	9.8	A	9.3	A	9.9	A
	(San Mateo County)		PM	8.5	A	8.9	A	8.8	A	9.4	A
2	5th Ave and Edison Wy	AWSC	AM	18.3	C	24.9	C	18.3	C	24.9	C
	(San Mateo County)		PM	18.8	C	25.0	C	18.8	C	25.0	C
3	Fair Oaks Ave and Edison Wy	OWSC	AM			9.5	A			9.5	A
	(San Mateo County)		PM			9.4	A			9.4	A
4	Fair Oaks Ave and Marsh Rd	OWSC	AM			16.9	C			18.0	C
	(San Mateo County)		PM			18.8	C			20.4	C
5	5th Ave and Semicircle Rd	Signal	AM	7.3	A	10.1	A	7.2	A	10.1	B
	(San Mateo County)		PM	5.4	A	8.7	A	5.4	A	8.8	A
6	5th Ave and Middlefield Rd	Signal	AM	24.9	C	36.8	D	25.4	C	36.7	D
	(San Mateo County)		PM	26.2	C	37.4	D	26.4	C	38.2	D
7	Marsh Rd and Middlefield Rd	Signal	AM	29.3	C			32.6	C		
	(Atherton)		PM	32.1	C			34.0	C		
8	Marsh Rd and Bay Rd	Signal	AM	24.1	C			25.2	C		
	(Menlo Park)		PM	33.2	C			32.2	C		
9	5th Ave and El Camino Real	Signal	AM	19.2	B	34.3	C	19.4	B	34.3	C
	(San Mateo County)		PM	19.7	B	31.9	C	19.9	B	32.2	C
10	Marsh Rd and Florence St	Signal	AM	37.9	D			36.4	D		
	(Menlo Park)		PM	39.0	D			39.0	D		
11	5th Ave and Bay Rd	AWSC	AM	30.6	D			34.3	D		
	(Redwood City)		PM	29.1	D			**36.1**	**E**		
12	Woodside Rd and Bay Rd	Signal	AM	**81.2**	**F**			**124.7**	**F**		
	(Redwood City)		PM	47.1	D			**95.1**	**F**		
13	Woodside Rd and Middlefield Rd	Signal	AM	41.9	D			43.9	D		
	(Redwood City/CMP)		PM	35.3	D			35.0	D		
14	Marsh Rd and US 101 NB Off-ramp	Signal	AM	17.6	B			25.0	C		
	(Menlo Park)		PM	13.5	B			13.8	B		
15	Marsh Rd and US 101 SB Off-ramp	Signal	AM	17.4	B			19.0	B		
	(Menlo Park)		PM	17.8	B			17.9	B		
16	2nd Ave and Bay Rd	AWSC	AM	12.7	B			13.7	B		
	(Redwood City)		PM	12.6	B			14.2	B		
17	2nd Ave and Middlefield Rd	TWSC	AM			**40.9**	**E**			**46.0**	**E**
	(San Mateo County)		PM			26.3	D			**57.9**	**F**
18	San Benito Ave and Fair Oaks Ave	TWSC	AM			11.9	B			11.9	B
	(San Mateo County)		PM			9.7	A			9.7	A
19	Palmer Ln and Fair Oaks Ave	TWSC	AM			11.5	B			11.5	B
	(San Mateo County)		PM			9.9	A			9.9	A
20	Holbrook Ln and Fair Oaks Ave	TWSC	AM			10.7	B			10.7	B
	(San Mateo County)		PM			9.3	A			9.3	A

ID	Intersection (Jurisdiction)	Control	Peak Hour	Existing Average[1] Delay (sec.)	Existing Average[1] LOS	Existing Worst[2] Delay (sec.)	Existing Worst[2] LOS	Background Average[1] Delay (sec.)	Background Average[1] LOS	Background Worst[2] Delay (sec.)	Background Worst[2] LOS
21	18th Ave and Bay Rd	OWSC[3]	AM			9.3	A			9.3	A
	(San Mateo County)		PM			8.7	A			8.7	A
22	14th Avee and Fair Oaks Ave	TWSC	AM			10.8	B			10.8	B
	(San Mateo County)		PM			9.8	A			9.8	A

Notes:
1. Average intersection delay and LOS are reported for signalized and all-way stop controlled intersections.
2. Worst movement delay and LOS are reported for signalized and unsignalized intersections in the San Mateo County.
3. The intersection of 18th Ave and Bay Rd is yield controlled for the northbound appporach, but analyzed as an OWSC.
Bold indicates a substandard level of service.

5.
Background Plus Project Conditions

This chapter describes near-term traffic conditions that most likely would occur when the project is completed with the proposed expansion. Background plus project conditions were evaluated relative to background conditions in order to determine potential project impacts. This traffic scenario represents a more congested traffic condition than the existing plus project scenario, since it includes traffic generated by approved but not yet completed developments in the area.

Roadway Network Under Background Plus Project Conditions

It is assumed in this analysis that the roadway network under background plus project conditions, including roadways and intersection lane configurations, would be the same as that described under existing conditions.

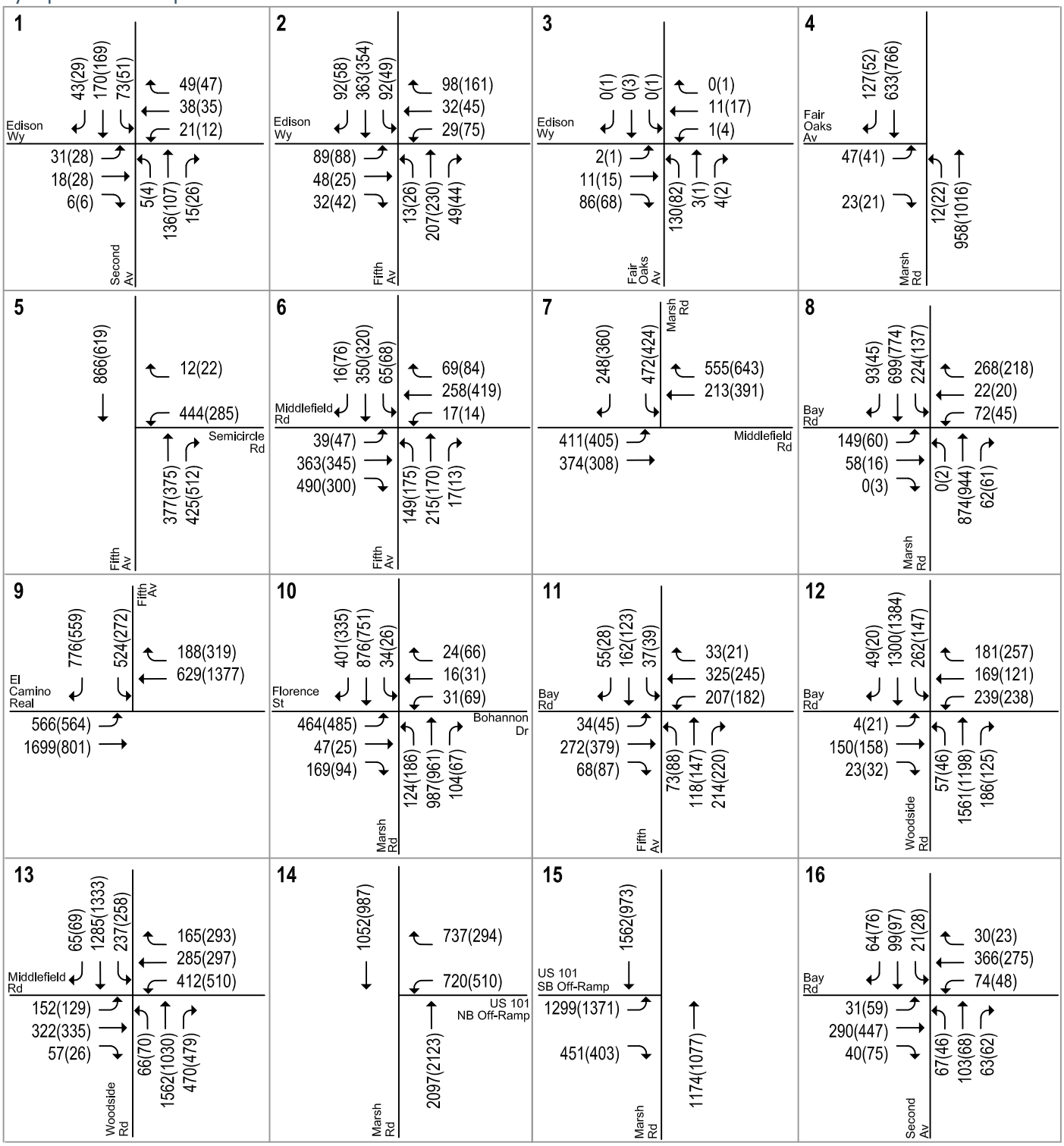
Background Plus Project Traffic Volumes

The project trip estimates, as previously described in Chapter 3 (see Table 4), were added to the background traffic volumes (described in Chapter 4) to derive the background plus project traffic volumes (see Figure 11).

Background Plus Project Intersection Level of Service Analysis

The results of the intersection level of service analysis (see Table 7) show that the same study intersections would operate at unacceptable levels of service as under background conditions. The added project trips would not cause these intersections to exceed the applicable significance impact thresholds. All other study intersections would operate at acceptable levels during both the AM and PM peak hours of traffic. Therefore, the project would not result in a significant traffic impact under background plus project conditions.

The level of service calculation sheets are included in Appendix D.



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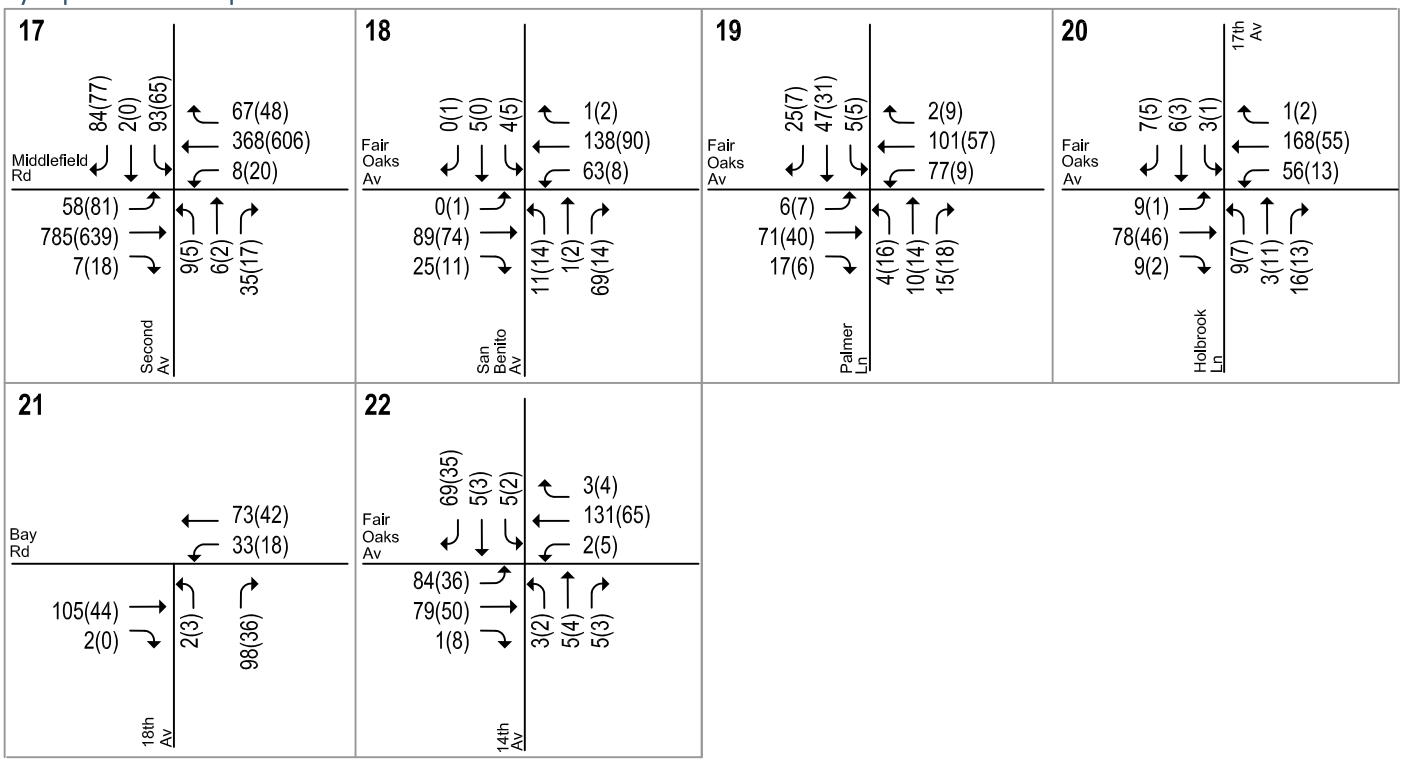
XX(XX) =AM(PM) Peak-Hour Traffic Volumes

Figure 11
Background Plus Project Traffic Volumes



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

Figure 11
Background Plus Project Traffic Volumes

Table 7
Background plus Project Intersection Levels of Service

ID	Intersection (Jurisdiction)	Control	Peak Hour	Background				Background + Project			
				Average[1]		Worst[2]		Average[1]		Worst[2]	
				Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS
1	2nd Ave and Edison Wy	AWSC	AM	9.3	A	9.9	A	9.3	A	10.0	A
	(San Mateo County)		PM	8.8	A	9.4	A	8.9	A	9.4	A
2	5th Ave and Edison Wy	AWSC	AM	18.3	C	24.9	C	20.1	C	28.1	D
	(San Mateo County)		PM	18.8	C	25.0	C	19.3	C	25.8	D
3	Fair Oaks Ave and Edison Wy	OWSC	AM			9.5	A			9.6	A
	(San Mateo County)		PM			9.4	A			9.4	A
4	Fair Oaks Ave and Marsh Rd	OWSC	AM			18.0	C			18.4	C
	(San Mateo County)		PM			20.4	C			20.5	C
5	5th Ave and Semicircle Rd	Signal	AM	7.2	A	10.1	B	7.3	A	10.2	B
	(San Mateo County)		PM	5.4	A	8.8	A	5.4	A	8.8	A
6	5th Ave and Middlefield Rd	Signal	AM	25.4	C	36.7	D	26.1	C	37.2	D
	(San Mateo County)		PM	26.4	C	38.2	D	26.6	C	38.3	D
7	Marsh Rd and Middlefield Rd	Signal	AM	32.6	C			32.8	C		
	(Atherton)		PM	34.0	C			34.0	C		
8	Marsh Rd and Bay Rd	Signal	AM	25.2	C			25.3	C		
	(Menlo Park)		PM	32.2	C			32.2	C		
9	5th Ave and El Camino Real	Signal	AM	19.4	B	34.3	C	19.6	B	34.6	C
	(San Mateo County)		PM	19.9	B	32.2	C	20.0	B	32.5	C
10	Marsh Rd and Florence St	Signal	AM	36.4	D			36.5	D		
	(Menlo Park)		PM	39.0	D			39.0	D		
11	5th Ave and Bay Rd	AWSC	AM	34.3	D			34.7	D		
	(Redwood City)		PM	**36.1**	**E**			**36.3**	**E**		
12	Woodside Rd and Bay Rd	Signal	AM	**124.7**	**F**			**125.2**	**F**		
	(Redwood City)		PM	**95.1**	**F**			**95.2**	**F**		
13	Woodside Rd and Middlefield Rd	Signal	AM	43.9	D			44.1	D		
	(Redwood City/CMP)		PM	35.0	D			35.1	D		
14	Marsh Rd and US 101 NB Off-ramp	Signal	AM	25.0	C			25.1	C		
	(Menlo Park)		PM	13.8	B			13.9	B		
15	Marsh Rd and US 101 SB Off-ramp	Signal	AM	19.0	B			19.1	B		
	(Menlo Park)		PM	17.9	B			17.9	B		
16	2nd Ave and Bay Rd	AWSC	AM	13.7	B			13.8	B		
	(Redwood City)		PM	14.2	B			14.3	B		
17	2nd Ave and Middlefield Rd	TWSC	AM			**46.0**	**E**			**48.9**	**E**
	(San Mateo County)		PM			**57.9**	**F**			**58.5**	**F**
18	San Benito Ave and Fair Oaks Ave	TWSC	AM			11.9	B			12.2	B
	(San Mateo County)		PM			9.7	A			9.7	A
19	Palmer Ln and Fair Oaks Ave	TWSC	AM			11.5	B			11.6	B
	(San Mateo County)		PM			9.9	A			9.9	A
20	Holbrook Ln and Fair Oaks Ave	TWSC	AM			10.7	B			10.8	B
	(San Mateo County)		PM			9.3	A			9.3	A

ID	Intersection (Jurisdiction)	Control	Peak Hour	Background				Background + Project			
				Average[1]		Worst[2]		Average[1]		Worst[2]	
				Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS
21	18th Ave and Bay Rd	OWSC[3]	AM			9.3	A			9.3	A
	(San Mateo County)		PM			8.7	A			8.7	A
22	14th Avee and Fair Oaks Ave	TWSC	AM			10.8	B			11.0	B
	(San Mateo County)		PM			9.8	A			9.8	A

Notes:
1. Average intersection delay and LOS are reported for signalized and all-way stop controlled intersections.
2. Worst movement delay and LOS are reported for signalized and unsignalized intersections in the San Mateo County.
3. The intersection of 18th Ave and Bay Rd is yield controlled for the northbound appporach, but analyzed as an OWSC.
Bold indicates a substandard level of service.

6. Cumulative Conditions

This chapter describes traffic operations under cumulative no project conditions and cumulative plus project conditions. Cumulative conditions evaluate local traffic volumes and roadway conditions projected for the year 2040, which is 20 years from the anticipated project completion.

Roadway Network Under Cumulative Conditions

A majority of the roadway network under cumulative conditions would remain the same as the roadway network under existing conditions. Two of the study intersections are anticipated to be modified by the cumulative year.

- **Woodside Road and Bay Road.** Based on the mitigation measures provided in the Stanford in Redwood City Precise Plan EIR for Phase II, the westbound approach on Bay Road would be restriped to include a one left-turn lane, one through lane, and one right-turn lane, and the eastbound approach would be restriped to include one left-turn lane, one through lane, and one shared through/right-turn lane. In addition, the signal phasing on the eastbound and westbound approaches would be modified from permitted phasing to protected phasing.
- **Bay Road and 5th Avenue.** Signalization of the intersection was identified in the 2012 Update to the Redwood City Traffic Impact Mitigation Fee Program (TIF) as a funded improvement. Therefore, this improvement was assumed to be in place, with no changes to lane geometry at the intersection. For the purposes of this analysis, the intersection was assumed to be signalized with protected phasing on the eastbound and westbound approaches on Bay Road and permitted phasing on the northbound and southbound approaches on 5th Avenue.

Cumulative Traffic Volumes

Traffic volumes under cumulative no project conditions were estimated using the projected baseline (2015) and 2040 volumes from the bi-county C/CAG-VTA travel demand model, the 2040 General Plan volumes from the City of Menlo Park ConnectMenlo EIR (October 2016), and the 2040 cumulative volumes from the City of Redwood City Broadway Plaza Draft EIR (November 2018).

For the study intersections in Redwood City, cumulative no project traffic volumes were taken directly from the 2040 cumulative volumes included the Broadway Plaza Draft EIR. For the study intersections in Menlo park and Atherton, cumulative no project traffic volumes were taken directly from the 2040 General Plan volumes included in the ConnectMenlo EIR (October 2016). For the remaining study

intersections in San Mateo County and the North Fair Oaks neighborhood, cumulative no project traffic volumes were estimated using the traffic growth derived from projected baseline (2015) and 2040 volumes from the bi-county C/CAG-VTA travel demand model. The traffic growth calculated from the model projected link volumes between the baseline year and the future year was applied to the existing year traffic counts to get the cumulative condition volumes. The cumulative no project traffic volumes are shown on Figure 12.

The project generated trips, as previously described in Chapter 3, were added to the cumulative no project traffic volumes to derive the cumulative plus project traffic volumes (see Figure 13).

Cumulative Intersection Levels of Service

The results of the intersection level of service analysis (see Table 8) show that under no project cumulative conditions, the following study intersections are expected to operate worse than acceptable jurisdictional standards:

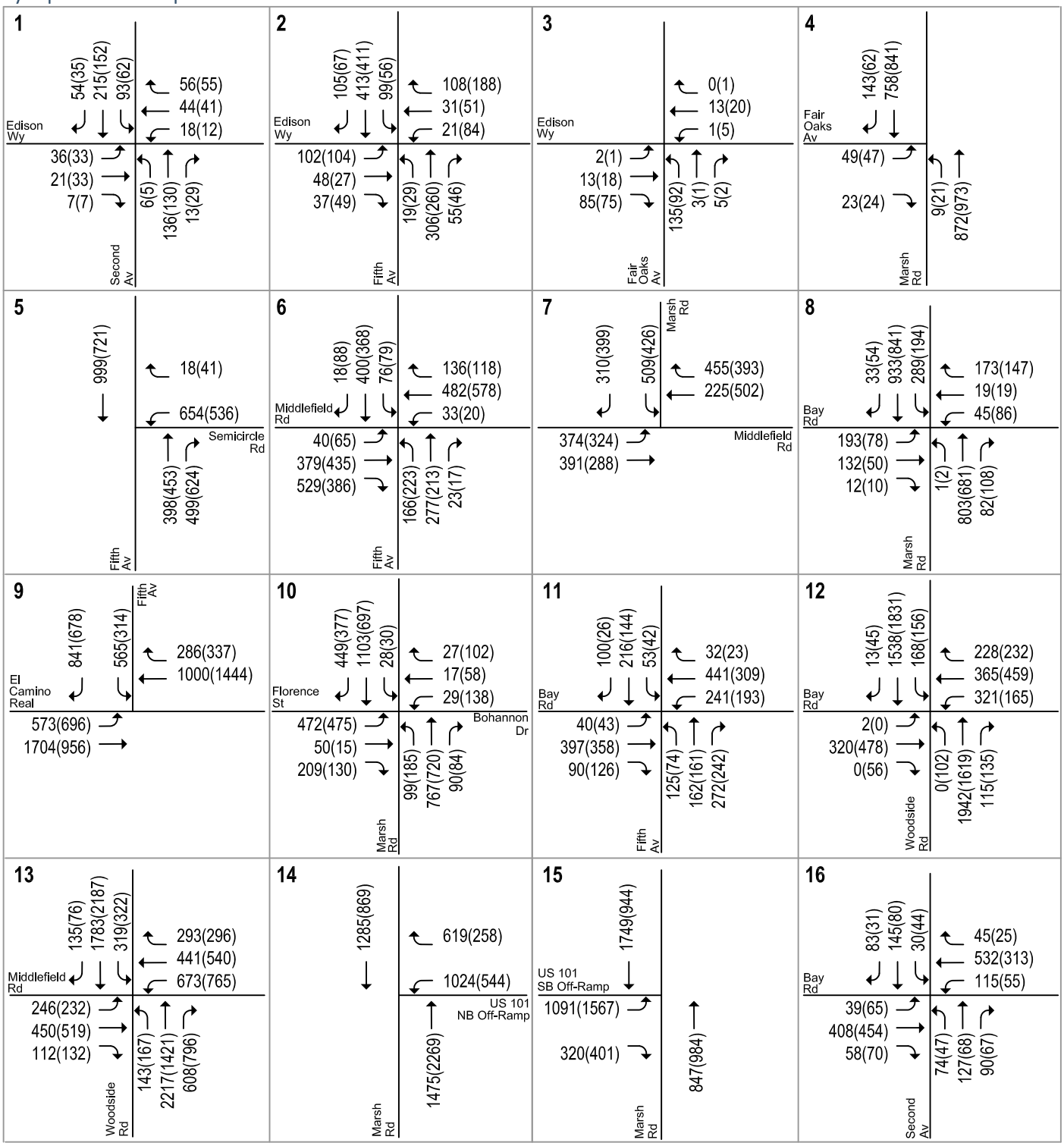
- 5th Avenue and Edison Way (San Mateo County): LOS E on average and LOS F on the worst movement in both AM peak hour and PM school peak hour.
- Woodside Road and Bay Road (Redwood City): LOS F in both AM peak hour and PM school peak hour.
- Woodside Road and Middlefield Road (Redwood City): LOS F in both AM peak hour and PM school peak hour.
- 2nd Avenue and Middlefield Road (San Mateo County): LOS F on the worst stop-controlled approach in both AM peak hour and PM school peak hour.

Cumulative Project Impacts

Under cumulative plus project conditions, the added project trips would cause an increase in vehicle delay exceeding the applicable significance impact thresholds at the following intersections:

- **5th Avenue and Edison Way (San Mateo County):** Under cumulative conditions, the intersection would operate at LOS E on average and LOS F for the worst movement in both the AM and PM peak hours. Project traffic would increase the average delay and the worst movement delay by more than 4 seconds, which is a significant impact under County standards.
- **2nd Avenue and Middlefield Road (San Mateo County):** Under cumulative conditions, the intersection would operate at LOS F on the worst stop-controlled approach in both the AM and PM peak hours. Project traffic would increase the worst movement delay by more than 4 seconds in the AM peak hour, which is a significant impact under County standards.

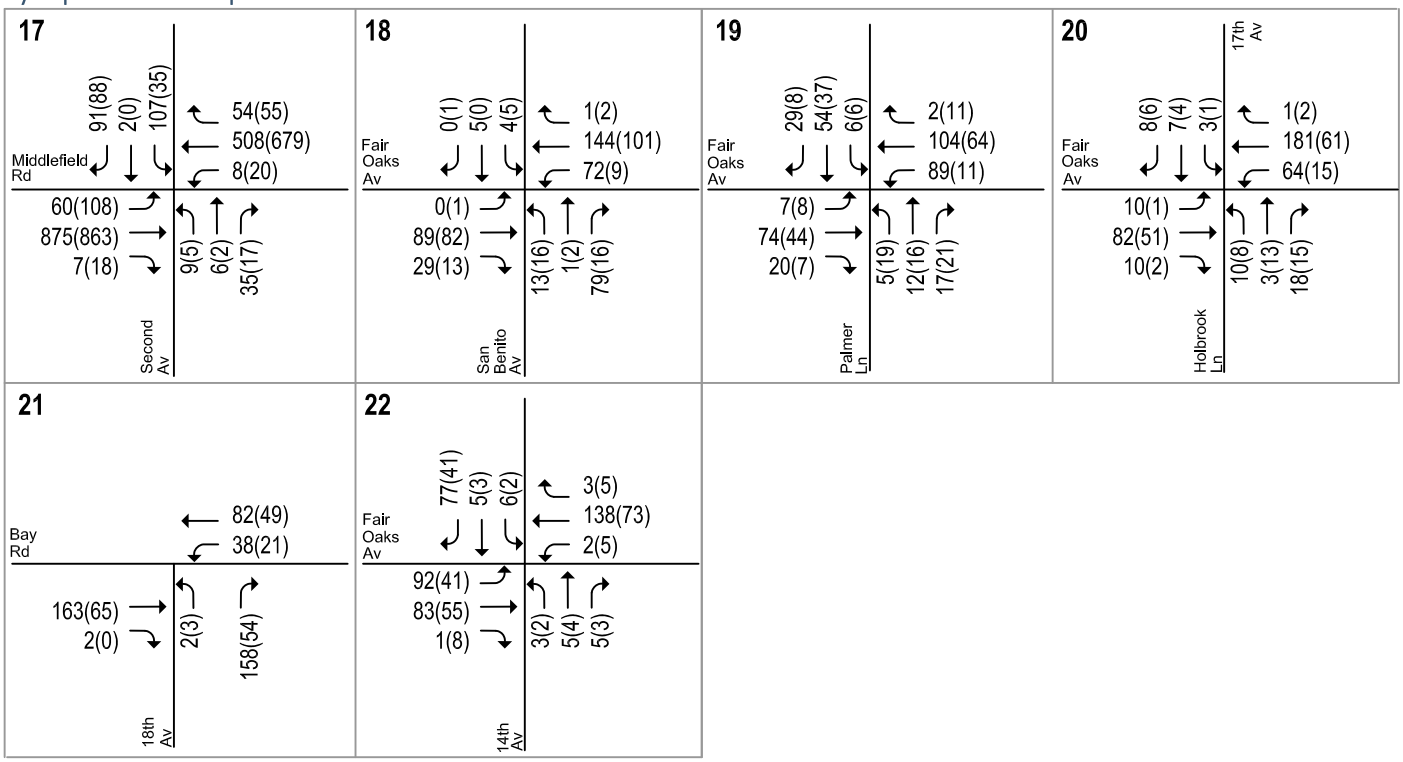
The level of service calculation sheets are included in Appendix D.



LEGEND

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

Figure 12
Cumulative No Project Traffic Volumes



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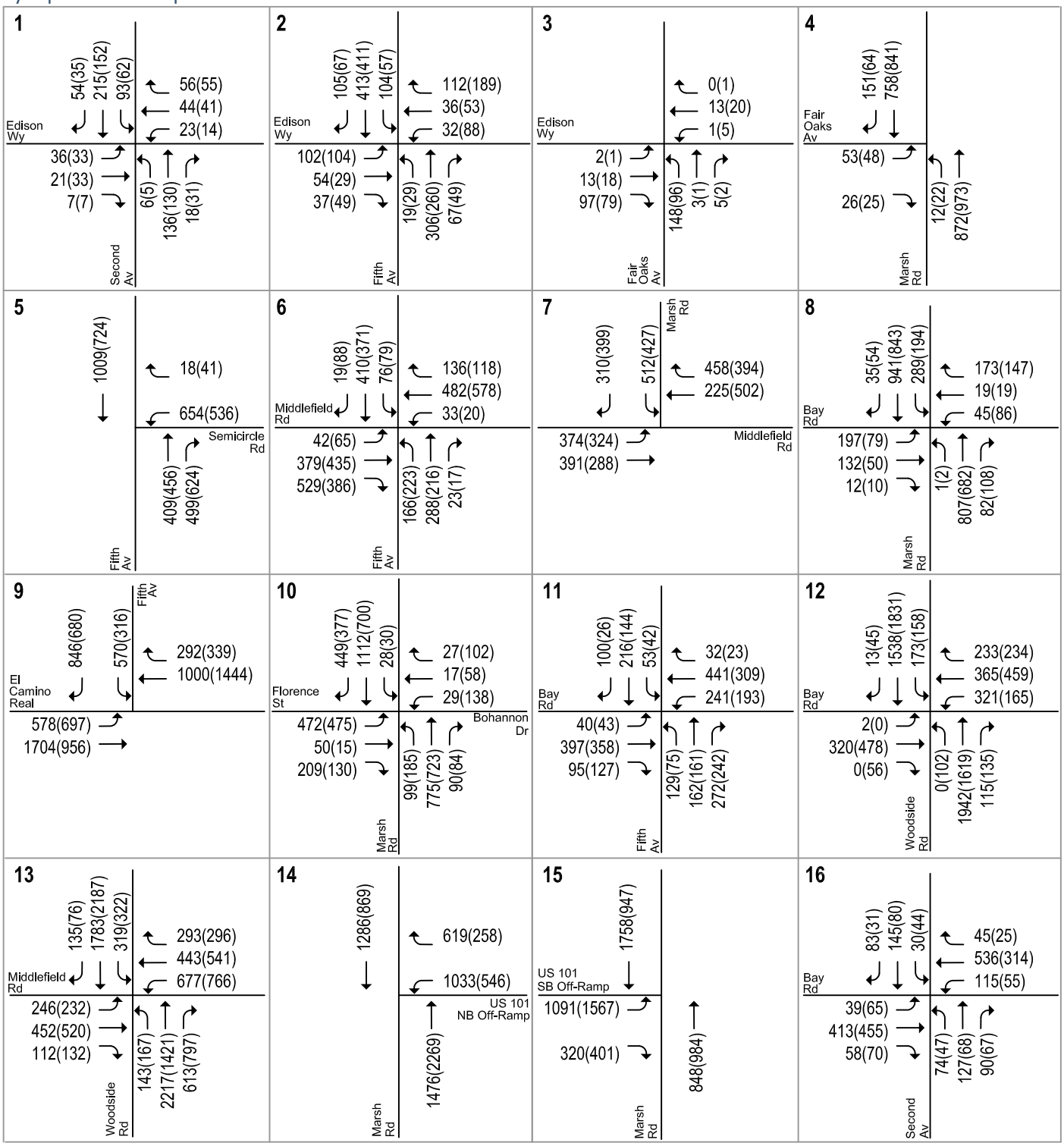
XX(XX) =AM(PM) Peak-Hour Traffic Volumes

Figure 12
Cumulative No Project Traffic Volumes



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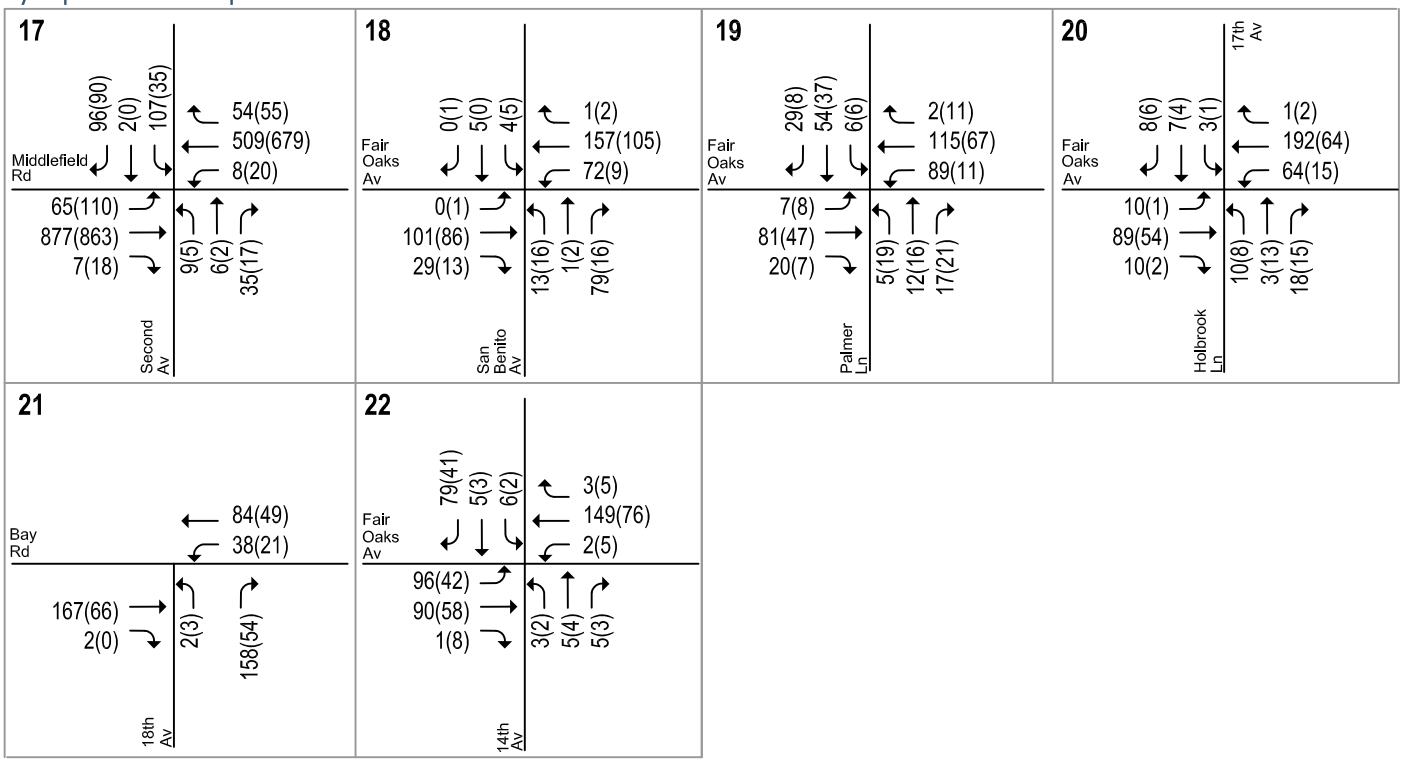
XX(XX) =AM(PM) Peak-Hour Traffic Volumes

Figure 13
Cumulative Plus Project Traffic Volumes



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

Figure 13
Cumulative Plus Project Traffic Volumes

Table 8
Intersection Levels of Service Under Cumulative Conditions

ID	Intersection (Jurisdiction)	Control	Peak Hour	Cumulative Average[1] Delay (sec.)	LOS	Cumulative Worst[2] Delay (sec.)	LOS	Cumulative + Project Average[1] Delay (sec.)	LOS	Cumulative + Project Worst[2] Delay (sec.)	LOS
1	2nd Ave and Edison Wy	AWSC	AM	10.3	B	11.4	B	10.3	B	11.4	B
	(San Mateo County)		PM	9.1	A	9.6	A	9.1	A	9.7	A
2	5th Ave and Edison Wy	AWSC	AM	**39.5**	**E**	**64.8**	**F**	**45.5**	**E**	**78.0**	**E**
			Mitigated AM[5]					**41.0**	**E**	**68.4**	**E**
	(San Mateo County)		PM	**38.5**	**E**	**64.2**	**F**	**40.3**	**E**	**68.1**	**F**
3	Fair Oaks Ave and Edison Wy	OWSC	AM			9.7	A			9.8	A
	(San Mateo County)		PM			9.5	A			9.6	A
4	Fair Oaks Ave and Marsh Rd	OWSC	AM			19.0	C			19.5	C
	(San Mateo County)		PM			21.7	C			21.9	C
5	5th Ave and Semicircle Rd	Signal	AM	14.6	B	22.6	C	14.7	B	22.8	C
	(San Mateo County)		PM	9.0	A	12.0	B	9.0	A	12.1	B
6	5th Ave and Middlefield Rd	Signal	AM	36.0	D	49.3	D	37.8	D	51.2	D
	(San Mateo County)		PM	37.6	D	52.8	D	38.1	D	53.3	D
7	Marsh Rd and Middlefield Rd	Signal	AM	32.7	C			32.9	C		
	(Atherton)		PM	38.3	D			38.4	D		
8	Marsh Rd and Bay Rd	Signal	AM	25.6	C			25.7	C		
	(Menlo Park)		PM	33.5	C			33.5	C		
9	5th Ave and El Camino Real	Signal	AM	25.7	C	43.9	D	26.2	C	45.4	D
	(San Mateo County)		PM	26.5	C	43.0	D	26.7	C	43.4	D
10	Marsh Rd and Florence St	Signal	AM	39.5	D			39.5	D		
	(Menlo Park)		PM	41.6	D			41.6	D		
11	5th Ave and Bay Rd	Signal[4]	AM	19.5	B			20.2	C		
	(Redwood City)		PM	13.4	B			13.4	B		
12	Woodside Rd and Bay Rd	Signal	AM	**90.6**	**F**			**91.7**	**F**		
	(Redwood City)		PM	**122.7**	**F**			**122.9**	**F**		
13	Woodside Rd and Middlefield Rd	Signal	AM	**117.1**	**F**			**117.6**	**F**		
	(Redwood City/CMP)		PM	**127.3**	**F**			**127.6**	**F**		
14	Marsh Rd and US 101 NB Off-ramp	Signal	AM	19.8	B			19.9	B		
	(Menlo Park)		PM	15.8	B			15.9	B		
15	Marsh Rd and US 101 SB Off-ramp	Signal	AM	19.5	B			19.6	B		
	(Menlo Park)		PM	19.7	B			19.7	B		
16	2nd Ave and Bay Rd	AWSC	AM	28.3	D			28.7	D		
	(Redwood City)		PM	14.1	B			14.2	B		
17	2nd Ave and Middlefield Rd	TWSC	AM			**155.5**	**F**			**167.3**	**F**
			Mitigated AM[5]							**159.1**	**F**
	(San Mateo County)		PM			**62.7**	**F**			**64.1**	**F**
18	San Benito Ave and Fair Oaks Ave	TWSC	AM			12.6	B			12.9	B
	(San Mateo County)		PM			9.9	A			10.0	B
19	Palmer Ln and Fair Oaks Ave	TWSC	AM			12.1	B			12.3	B
	(San Mateo County)		PM			10.1	B			10.2	B
20	Holbrook Ln and Fair Oaks Ave	TWSC	AM			11.1	B			11.2	B
	(San Mateo County)		PM			9.4	A			9.5	A

ID	Intersection (Jurisdiction)	Control	Peak Hour	Cumulative Average[1] Delay (sec.)	Cumulative Average[1] LOS	Cumulative Worst[2] Delay (sec.)	Cumulative Worst[2] LOS	Cumulative + Project Average[1] Delay (sec.)	Cumulative + Project Average[1] LOS	Cumulative + Project Worst[2] Delay (sec.)	Cumulative + Project Worst[2] LOS
21	18th Ave and Bay Rd	OWSC[3]	AM			10.1	B			10.1	B
	(San Mateo County)		PM			8.9	A			8.9	A
22	14th Avee and Fair Oaks Ave	TWSC	AM			11.3	B			11.5	B
	(San Mateo County)		PM			10.0	B			10.0	B

Notes:
1. Average intersection delay and LOS are reported for signalized and all-way stop controlled intersections.
2. Worst movement delay and LOS are reported for signalized and unsignalized intersections in the San Mateo County.
3. The intersection of 18th Ave and Bay Rd is yield controlled for the northbound appporach, but analyzed as an OWSC.
4. Signalization is anticipated to be in place by the cumulative year as identified in the 2012 Update to the Redwood City Transportation Impact Mitigation Fee.
5. The mitigation measure is to expand the school's shuttle program to meet the AM trip cap of 298 trips.

Bold indicates a substandard level of service.
Bold indicates a significant impact.

Cumulative Mitigation

The following mitigation measure is proposed to mitigate the project's impacts. Table 8 shows the intersection levels of services at impacted intersections with the mitigation measure.

- **Trip Cap of 298 AM Peak-Hour Trips:** In order to avoid the project impacts at the 5th Avenue/Edison Way and 2nd Avenue/Middlefield Road intersections under cumulative plus project conditions, the school should implement measures, including staggering the pre-school start time to 9:15 AM, to reduce the AM peak-hour trips generated by the school from 343 trips to 298 trips. The trip cap would improve the average and worst movement delays at these two intersections to less than a 4-second increase from no-project conditions. Staggering the pre-school start time is also expected to reduce the peak parking demand and improve the drop-off operations because there would be fewer students arriving during the peak drop-off period. With the staggering schedule, the school would provide care and accommodations to preschool students who arrive early with siblings before the preschool program starts.

7.
Other Transportation Issues

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

- Potential impacts to bicycle, pedestrian, and transit facilities
- Site access and circulation
- Parking

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

Impacts on Bicycle, Pedestrian, and Transit Facilities

Similar to existing conditions, most students would be dropped off at school, with very few students walking or bicycling to school. Most of the residential streets in the vicinity of the school have no sidewalks. Therefore, it would not be safe for the younger students to walk to school. Although the streets do not have bike lanes, the low volumes and travel speeds on the neighborhood streets are conducive to bicycling.

The school is more than one-half mile from most existing transit stops and is not near a major transit center. Because the distance is farther than the typically assumed walking distance of one quarter mile, the school is considered to be unserved by transit.

Site Access and Circulation

The site access and circulation review is based on the site plan shown in Figure 2 and observations of existing operations at the school. The site access was evaluated in accordance with generally accepted traffic engineering standards. The review focuses on the evaluation of drop-off/pick-up operation. The current school schedule is 8:15 - 8:45 AM for the morning drop-off, 3:15 - 3:30 PM for the lower school pick-up, and 3:30 - 3:45 PM for the middle school pick-up. On Friday, the pick-up schedule is 2:30 - 2:45 PM for the lower school and 2:45 - 3:00 PM for the middle school. The proposed pre-school would start at 8:15 - 8:45 AM and end at 2:00 PM.

As shown in Figure 2, the main parking lot is configured with a loading area in front of Building 2. All drop-off/pick-up vehicles enter the parking lot via the driveway in front of Building 3, drop off/pick-up

students in front of Building 2, and exit the parking lot via the driveway next to Building 1. Parents that choose to park and walk students to the school use the middle driveways to enter and exit the parking lot. There are staff members in the loading area to manage the drop-off/pick-up traffic.

In the morning, the drop-off vehicle queue occasionally extended out of the parking lot by one to five vehicles, which occurred in the westbound shoulder/parking lane and did not block westbound traffic on Edison Way. Most of the time, the drop-off traffic moved efficiently and smoothly within the parking lot. Parents were not observed to drop off students on Edison Way.

In the afternoon, the school implements an informing system to speed up the pick-up operations. Upon arrival, parents inform the staff at the driveway who then inform the staff inside the building to bring out each student. The pick-up vehicle moves forward to the loading area, while waiting for the student to be brought out. Observations show that the pick-up traffic moved efficiently and smoothly within the parking lot with the informing system, and the pick-up vehicle queue did not extend to Edison Way.

The proposed expansion would increase the enrollment by up to 50 students (30 pre-school students and 20 K-8 students). The pre-school parents would utilize the loading area in front of Building 2. Parents would also park in front of Buildings 1 and 2. The current traffic management practice would continue to be implemented to move the drop-off/pick-up traffic within the parking lot. However, because the drop-off vehicle queue was observed to back up to Edison Way occasionally by one to five vehicles in the morning, the enrollment increase would potentially worsen the vehicle queuing condition on Edison Way. Therefore, it is recommended the school assign more staff members in the drop-off areas and in the parking lot to ensure drop-off/pick-up traffic moves efficiently on site and to prevent vehicle queuing on Edison Way. During the peak drop-off/pick-up periods, the school should also assign a staff member at the inbound driveway to monitor the inbound vehicle queueing condition at the driveway and coordinate with staff in the loading area and parking lot to quickly move the inbound traffic if the vehicle queue extends to Edison Way.

Parking

As part of the existing conditional use permit (CUP), the school is required to provide 128 on-site parking spaces. Following the CUP approval, approximately 44 of these spaces were designated and striped on turf between Buildings 3 and 4. However, because the actual parking demand is only 37-50 parking spaces (as discussed below) and the main parking lot was able to accommodate this parking demand, the parking spaces between Buildings 3 and 4 and east of Building 4 were seldom used. This turfed area between Buildings 3 and 4 is currently used as outdoor classrooms under temporary tents to comply with Covid-19 protocol, as well as an outdoor educational garden. Accordingly, the school currently maintains 84 striped parking spaces on site with 53 parking spaces in the main parking lot, 26 parking spaces in the faculty parking lot east of Building 4, and 5 parking spaces in front of the gate between Buildings 3 and 4.

Per the San Mateo County Zoning Ordinance Section 6276.7, the school would be required to provide 192 parking spaces based on the parking requirement of one space per 400 square feet for institutional use and the total building floor area of 76,600 square feet. The school is applying for a parking exception as part of the CUP amendment submittal to reduce this requirement to 60 parking spaces with 46 parking spaces in the main parking lot, 5 parking spaces between Buildings 3 and 4, and 9 parking spaces in the parking lot east of Building 4 (see Figure 2). Based on Hexagon's counts conducted on November 5 to 7, 2019, the maximum number of vehicles parked on site ranged from 37 to 50 vehicles between 8:00 AM and 9:00 AM. Most vehicles (32 to 45) parked in the main parking lot, with 5 vehicles parked in the lot between Buildings 3 and 4. There were no vehicles parked in the faculty parking lot. The school enrollment was 260 students in November 2019 when the parking counts were conducted. With the proposed enrollment of 310 students, the projected parking demand would

be 44 to 60 spaces (an 19.2% increase). Therefore, the parking demand for the 310-student enrollment would be much lower than the 192 parking spaces required by Zoning Ordinance Section 6276.7 and also lower than the current 84 striped parking spaces provided. Accordingly, the proposed 60 parking spaces proposed would adequately accommodate the school's parking demand.

During the morning drop-off period, most parents drop K-8 students without parking. In the afternoon, some parents parked in the parking lot or on Edison Way to pick up students at the school buildings. While there are available parking spaces in the parking lot, some parents were observed to park on Edison Way (and walk to the school to pick up students) to avoid interaction with the pick-up traffic.

For the proposed 30 pre-school students, it is anticipated that parents would either park in the loading area in front of Building 2 or park in front of Buildings 1 and 2. It is expected that some of the parking spaces would be reserved for the pre-school during morning drop off and afternoon pick up hours. Because most parents drop K-8 students without parking, there would be enough parking spaces for the pre-school in the morning. In the afternoon, the pre-school students would be dismissed more than a half hour before the K-8 students, so the parking demand would not overlap.

Based on these observations and the anticipated pre-school operations, the proposed 60 parking spaces would be sufficient to accommodate the school's anticipated parking demand. If the parking exception is not granted to the extent requested, the school would consider relying on their existing reciprocal parking agreement with Sports House at 3151 Edison Way to meet its remaining parking requirement.

Synapse School Expansion TIA
Technical Appendices

April 21, 2021

Appendix A
2018 and 2019 Trip Monitoring Results

HEXAGON TRANSPORTATION CONSULTANTS, INC.

November 8, 2018

Ms. Summer Burlison
Planning & Building Department
County of San Mateo
455 County Center, 2nd Floor
Redwood City, CA 94063

Re: Trip Monitoring for Synapse School

Dear Ms. Burlison:

This letter presents the trip monitoring results for the Synapse school. As part of the conditions of approval (COA), the school is required to conduct AM peak-hour trip generation counts over three weekdays (a Tuesday, Wednesday, and/or Thursday) in October and March of each school year and to show that normal operation of the school does not exceed 275 morning peak-hour trips.

The results of the trip monitoring show that the school is in compliance with the COA. With the 2018-2019 enrollment of 254 students, the average trip generation of the school was 269 trips in the AM peak hour.

School Schedule and Shuttle Program

The school drop-off period is between 8:15 and 8:45 AM for all grades every day. The pick-up periods are 3:15 – 3:30 PM for the lower school and 3:30 – 3:45 PM for the middle school on Monday through Thursday. On Friday, the pick-up periods are 2:30 – 2:45 PM for the lower school and 2:45 – 3:00 PM for the middle school.

The school currently operates 9 shuttles serving 72 students in the morning and 4 shuttles serving 20 students in the afternoon.

Morning Shuttle Routes

All shuttles arrive at the school at around 8:30 AM.

- Burlingame/Hillsborough (1 Van/7 Students) – Pick-up Location: Cal Trans Park & Ride, 1698 Golf Course Drive, Burlingame, CA 94010. Departure Time: 7:50 AM.
- Palo Alto 1 (5 Vans/43 Students) – Pick-up Location: Palo Alto Art Center, 1313 Newel Road, Palo Alto, CA 94303. Departure Time: 8:10 AM.
- Palo Alto 2 (1 Van/5 Students) – Pick-up Location: El Camino Park, 155 El Camino Real, Palo Alto, CA 94301. Departure Time: 8:00 AM.
- Los Altos/Mountain View (1 Van/6 Students) – Pick-up Location: McKenzie Park Tennis Court, 707 Fremont Avenue, Los Altos, CA 94024. Departure Time: 7:45 AM.
- Woodside (1 Vans/11 Students) – Pick-up Location: Park & Ride, Woodside Road & I-280. Departure Time: 8:00 AM.

Afternoon Shuttle Routes

All shuttles depart the school at 3:40 PM on Monday through Thursday and at 2:40 PM on Friday.

- Burlingame/Hillsborough (1 Van/3 Students): Drop-off Location: Cal Trans Park & Ride, 1698 Golf Course Drive, Burlingame, CA 94010. Estimated Drop-off Time: 4:10 PM on Monday – Thursday and 3:10 PM on Friday.
- Palo Alto 1 (2 Vans/12 Students): Drop-off Location: Palo Alto Art Center, 1313 Newel Road, Palo Alto, CA 94303. Estimated Drop-off Time: 4:05 PM on Monday – Thursday and 3:05 PM on Friday.
- Los Altos/Mountain View (1 Van/5 Students) – Drop-off Location: McKenzie Park Tennis Court, 707 Fremont Avenue, Los Altos, CA 94024. Estimated Drop-off Time: 4:15 PM on Monday – Thursday and 3:15 PM on Friday.

Trip Generation Counts

Hexagon conducted the trip generation counts on October 10, October 18, and October 23, 2018 between 7:00 and 9:00 AM. The counts included the vehicle traffic at the school driveways plus any school-related traffic along Edison Way and its cross-streets.

Table 1 shows that the average trip generation of the school was 269 trips in the AM peak hour. Only a few parents, ranging one to four vehicles, parked on the adjacent streets and walked students to the school.

Table 1
Synapse School Trip Generation

	AM Peak-Hour Trips		
Date	**Total**	**In**	**Out**
10/10/18 (Wed)	253	141	112
10/18/18 (Thu)	287	155	132
10/23/18 (Tue)	268	145	123
Average	**269**	**147**	**122**

Drop-Off/Pick-Up Operations

Figure 1 shows the drop-off/pick-up circulation at the school. The school divides the parking lot into two areas for the lower and middle school drop-off/pick-up. There are staff members in each area to manage the drop-off/pick-up traffic.

In the morning, the drop-off vehicle queue occasionally extended out of the parking lot by one to two vehicles, which blocked the shoulder/parking lane but did not block the westbound traffic on Edison Way. Most of the time, the drop-off traffic moved efficiently and smoothly within the parking lot.

In the afternoon, the school implements an informing system to speed up the pick-up operations. Upon arrival, parents inform the staff at the driveway who then inform the staff inside the building to bring out which student. The pick-up vehicle moves forward in the parking lot, while waiting for the student to be brought out. Observations show that the pick-up traffic moved efficiently and smoothly within the parking lot with the informing system, and the pick-up vehicle queue did not extend to Edison Way.

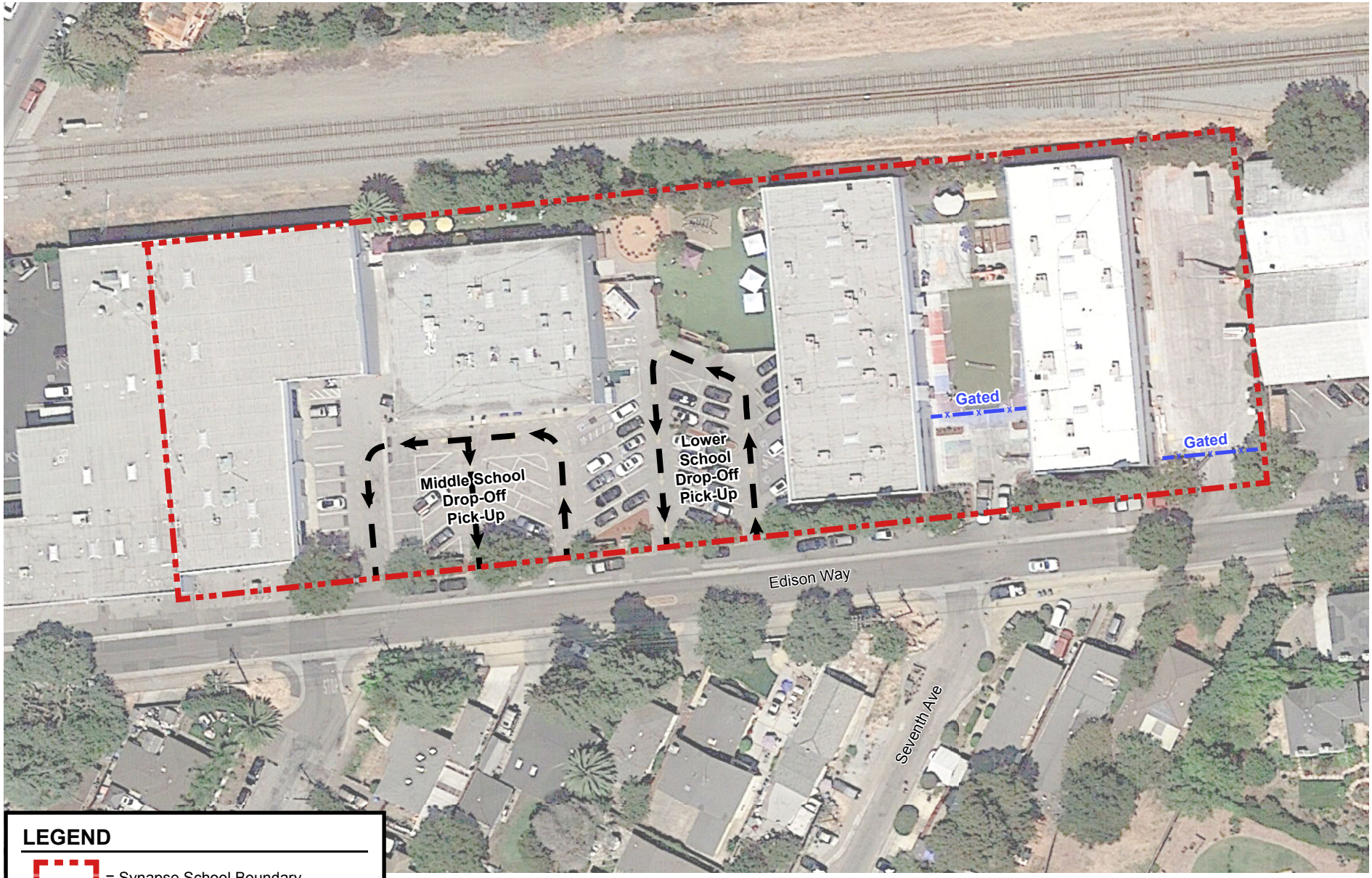


Figure 1
Synapse School Drop-Off/Pick-Up Circulation

In the morning, most parents drop students without parking. In the afternoon, some parents parked in the parking lot or on Edison Way to pick up students at the school buildings. While there are available parking spaces in the parking lot, some parents were observed to park on Edison Way to avoid interaction with the pick-up traffic.

Parking Occupancy

There are 66 parking spaces in the main parking lot with additional parking spaces in the eastern parking lots. The number of vehicles parked on site ranged from 29 to 45 vehicles around 9:00 AM on the traffic count dates. Most vehicles parked in the main parking lot.

Sincerely,
HEXAGON TRANSPORTATION CONSULTANTS, INC.

Gary K. Black
President

Kai-Ling Kuo
Associate

AM Peak-Hour Volume Count Worksheet

Date: 10/10/2018
Counter: Kilbee, Patti, Jo
Intersection Name: Synapse School
Weather: Overcast Menlo Park

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	Driveway 1 & 2		Driveway 3		Driveway 4		Driveway 5 & 6		Driveway 7		On-Street				
Start Time	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT			
7:00	0	0	0	0	0	0	0	0	0	0	0	0			
7:15	0	0	0	0	0	0	0	0	4	0	0	0			
7:30	1	0	0	0	0	0	0	0	5	0	0	0			
7:45	2	0	2	0	0	0	0	0	6	0	0	0			
8:00	3	0	4	0	0	0	2	0	9	0	0	0			
8:15	14	2	5	0	0	0	6	0	14	0	0	0			
8:30	46	21	5	0	0	0	13	7	14	0	1	1			
8:45	73	52	5	0	0	0	46	37	15	1	1	1			
9:00	86	62	5	0	0	0	52	48	15	1	1	1			
	9 at 9AM		5 at 9AM				4 at 9AM		14 at 9AM				Parking		32
Peak Hour													Hourly Totals		
7:00 - 8:00	3	0	4	0	0	0	2	0	9	0	0	0	18		
7:15 - 8:15	14	2	5	0	0	0	6	0	10	0	0	0	37		
7:30 - 8:30	45	21	5	0	0	0	13	7	9	0	1	1	102		
7:45 - 8:45	71	52	3	0	0	0	46	37	9	1	1	1	221		
8:00 - 9:00	83	62	1	0	0	0	50	48	6	1	1	1	253		
Peak Volumes:	**83**	**62**	**1**	**0**	**0**	**0**	**50**	**48**	**6**	**1**	**0**	**1**	**1**	**253**	**141**	**112**

AM Peak-Hour Volume Count Worksheet

Date: 10/18/2018
Counter: Kilbee and Jo
Intersection Name: Synapse School
Weather: Overcast Menlo Park

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	Driveway 1 & 2		Driveway 3		Driveway 4		Driveway 5 & 6		Driveway 7		On-Street				
Start Time	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT			
7:00	0	0	0	0	0	0	0	0	0	0	0	0			
7:15	0	0	0	0	0	0	0	0	1	0	0	0			
7:30	2	0	0	0	0	0	0	0	3	1	0	0			
7:45	3	0	2	0	0	0	0	0	4	1	0	0			
8:00	8	1	3	0	0	0	1	0	7	1	0	0			
8:15	17	2	5	0	0	0	3	0	9	1	0	0			
8:30	45	18	5	0	0	0	10	3	10	1	2	2			
8:45	85	64	5	0	0	0	45	33	12	1	2	2			
9:00	88	75	5	0	0	0	65	53	13	3	3	3			
	14 cars at 9AM		5 at 9AM				12 cars at 9AM		13 at 9AM					Parking	44
Peak Hour													Hourly Totals		
7:00 - 8:00	8	1	3	0	0	0	1	0	7	1	0	0	21		
7:15 - 8:15	17	2	5	0	0	0	3	0	8	1	0	0	36		
7:30 - 8:30	43	18	5	0	0	0	10	3	7	0	2	2	90		
7:45 - 8:45	82	64	3	0	0	0	45	33	8	0	2	2	239		
8:00 - 9:00	80	74	2	0	0	0	64	53	6	2	3	3	287		
Peak Volumes:	**80**	**74**	**2**	**0**	**0**	**0**	**64**	**53**	**6**	**2**	**0**	**3**	**3**	**287**	**155**	**132**

AM Peak-Hour Volume Count Worksheet

AUTO-CENSUS

Traffic Monitoring and Analysis

870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

Date: 10/23/2018
Counter: Kilbee and Jo
Intersection Name: Synapse School
Weather: Overcast Menlo Park

	Driveway 1 & 2		Driveway 3		Driveway 4		Driveway 5 & 6		Driveway 7		On-Street				
Start Time	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT			
7:00	0	0	0	0	0	0	0	0	0	0	0	0			
7:15	0	0	2	0	0	0	2	0	1	0	0	0			
7:30	0	0	3	0	0	0	2	0	1	0	0	0			
7:45	3	0	4	0	0	0	3	0	4	0	0	0			
8:00	5	1	5	0	0	0	4	0	6	1	0	0			
8:15	14	3	5	0	0	0	10	2	7	1	0	0			
8:30	47	23	5	0	0	0	24	14	11	1	0	0			
8:45	73	48	5	0	0	0	41	32	13	2	1	1			
9:00	78	63	5	0	0	0	63	55	15	3	4	4			
	1 car at 9AM		5 at 9AM				11 at 9AM		12 at 9AM					Parking	29
Peak Hour													Hourly Totals		
7:00 - 8:00	5	1	5	0	0	0	4	0	6	1	0	0	22		
7:15 - 8:15	14	3	3	0	0	0	8	2	6	1	0	0	37		
7:30 - 8:30	47	23	2	0	0	0	22	14	10	1	0	0	119		
7:45 - 8:45	70	48	1	0	0	0	38	32	9	2	1	1	202		
8:00 - 9:00	73	62	0	0	0	0	59	55	9	2	4	4	268		
Peak Volumes:	**73**	**62**	**0**	**0**	**0**	**0**	**59**	**55**	**9**	**2**	**0** **4**	**4**	**268**	**145**	**123**

HEXAGON TRANSPORTATION CONSULTANTS, INC.

November 25, 2019

Mr. Bob Bear
Chief Operations Officer
Synapse School
3375 Edison Way
Menlo Park, CA 94025

Re: 2019 Trip Monitoring for Synapse School

Dear Mr. Bear:

This letter presents the trip monitoring results for the Synapse school. As part of the conditions of approval (COA), the school is required to conduct AM peak-hour trip generation counts over three weekdays (a Tuesday, Wednesday, and/or Thursday) in October and March of each school year and to show that normal operation of the school does not exceed 275 morning peak-hour trips.

The results of the trip monitoring show that the school is in compliance with the COA. With the 2019-2020 enrollment of 260 students, the average trip generation of the school was 243 trips in the AM peak hour.

School Schedule and Shuttle Program

The school drop-off period is between 8:15 and 8:45 AM for all grades every day. The pick-up periods are 3:15 – 3:30 PM for the lower school and 3:30 – 3:45 PM for the middle school on Monday through Thursday. On Friday, the pick-up periods are 2:30 – 2:45 PM for the lower school and 2:45 – 3:00 PM for the middle school.

The school currently operates 10 shuttles serving 87 students in the morning and 5 shuttles serving 36 students in the afternoon.

Morning Shuttle Routes

All shuttles arrive at the school at around 8:30 AM.

- Burlingame/Hillsborough (1 Van/8 Students) – Pick-up Location: Cal Trans Park & Ride, 1698 Golf Course Drive, Burlingame, CA 94010. Departure Time: 7:50 AM.
- Los Altos/Mountain View (1 Van/10 Students) – Pick-up Location: McKenzie Park Tennis Court, 707 Fremont Avenue, Los Altos, CA 94024. Departure Time: 7:45 AM.
- Palo Alto 1 (6 Vans/45 Students) – Pick-up Location: Palo Alto Art Center, 1313 Newel Road, Palo Alto, CA 94303. Departure Time: 8:10 AM.
- Sunnyvale/Palo Alto 2 (1 Van/11 Students) – Pick-up Location #1: Serra Park Tennis Courts, 1563 Hollenbeck Ave, Sunnyvale, CA 94085. Departure Time: 7:40 AM. Pick-up Location #2: El Camino Park, 155 El Camino Real, Palo Alto, CA 94301. Departure Time: 8:10 AM.
- Woodside (1 Vans/13 Students) – Pick-up Location: Park & Ride, Woodside Road & I-280. Departure Time: 8:00 AM.

Afternoon Shuttle Routes

All shuttles depart the school at 3:50 PM on Monday through Thursday and at 2:50 PM on Friday.

- Burlingame/Hillsborough (1 Van/7 Students): Drop-off Location: Cal Trans Park & Ride, 1698 Golf Course Drive, Burlingame, CA 94010. Estimated Drop-off Time: 4:10 PM on Monday – Thursday and 3:10 PM on Friday.
- Los Altos/Mountain View (1 Van/9 Students) – Drop-off Location: McKenzie Park Tennis Court, 707 Fremont Avenue, Los Altos, CA 94024. Estimated Drop-off Time: 4:15 PM on Monday – Thursday and 3:15 PM on Friday.
- Palo Alto 1 (3 Vans/20 Students): Drop-off Location: Palo Alto Art Center, 1313 Newel Road, Palo Alto, CA 94303. Estimated Drop-off Time: 4:05 PM on Monday – Thursday and 3:05 PM on Friday.

Trip Generation Counts

Hexagon conducted trip generation counts on November 5, 6, and 7, 2019, between 7:00 and 9:00 AM. The counts included the vehicle traffic at the school driveways plus any school-related traffic along Edison Way and its cross-streets.

Table 1 shows that the average trip generation of the school was 243 trips in the AM peak hour. There were no parents parking on the adjacent streets and walking students to the school.

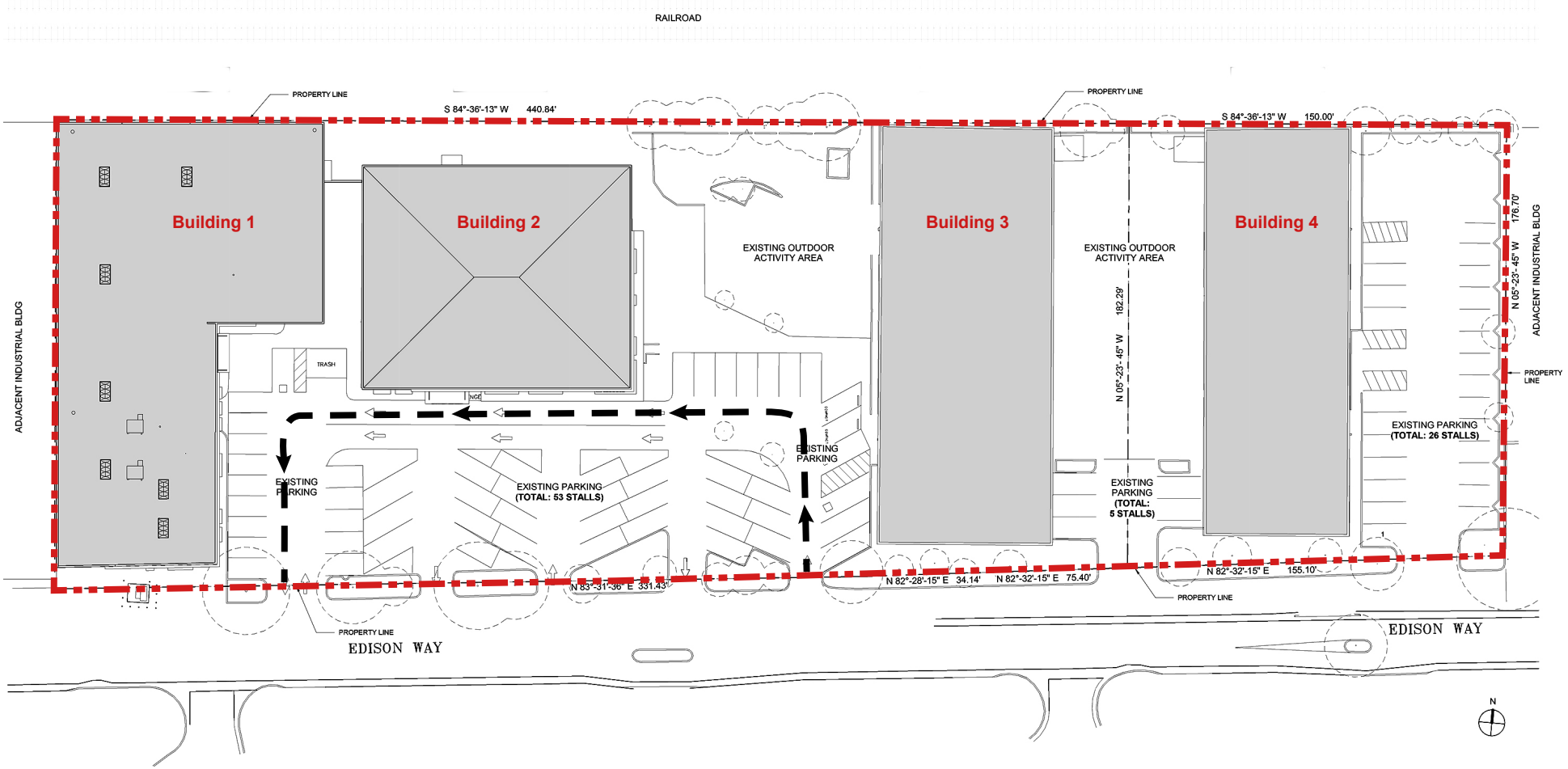
Table 1
Synapse School Trip Generation

Date	AM Peak-Hour Trips		
	Total	In	Out
11/5/19 (Tue)	218	116	102
11/6/19 (Wed)	262	144	118
11/7/19 (Thu)	250	138	112
Average	**243**	**133**	**110**

Drop-Off/Pick-Up Operations

Figure 1 shows the drop-off/pick-up circulation at the school. The main parking lot is configured with a loading area in front of Building 2. All drop-off/pick-up vehicles enter the parking lot via the driveway in front of Building 3, drop off/pick-up students in front of Building 2, and exit the parking lot via the driveway next to Building 1. Parents that choose to park and walk students to the school use the middle driveways to enter and exit the parking lot.

In the morning, the drop-off vehicle queue occasionally extended out of the parking lot by one to five vehicles, which blocked the shoulder/parking lane but did not block the westbound traffic on Edison Way. Most of the time, the drop-off traffic moved efficiently and smoothly within the parking lot.



LEGEND

= Synapse School Boundary

= Drop-Off / Pick-Up Path

Figure 1
Synapse School Site and Drop-Off/Pick-Up Circulation

HEXAGON

NORTH
Not to Scale

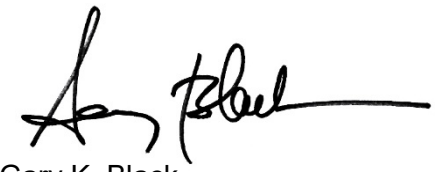
In the afternoon, the school implements an informing system to speed up the pick-up operations. Upon arrival, parents inform the staff at the driveway who then inform the staff inside the building to bring out which student. The pick-up vehicle moves forward to the loading area, while waiting for the student to be brought out. Observations show that the pick-up traffic moved efficiently and smoothly within the parking lot with the informing system, and the pick-up vehicle queue did not extend to Edison Way.

In the morning, most parents drop students without parking. In the afternoon, some parents parked in the parking lot or on Edison Way to pick up students at the school buildings. While there are available parking spaces in the parking lot, some parents were observed to park on Edison Way to avoid interaction with the pick-up traffic.

Parking Occupancy

There are 53 parking spaces in the main parking lot with additional parking spaces in the eastern parking lots. The number of vehicles parked on site ranged from 34 to 50 vehicles around 9:00 AM on the traffic count dates. Most vehicles (29 to 45) parked in the main parking lot with 5 vehicles parked in the lot between Buildings 3 and 4. There were no vehicles parked in the staff parking lot east of Building 4.

Sincerely,
HEXAGON TRANSPORTATION CONSULTANTS, INC.



Gary K. Black
President

Kai-Ling Kuo
Associate

AM Peak-Hour Volume Count Worksheet- 18GB41

Date: 11/5/2019
Counter: Kilbee, Patti, Jo
Intersection Name: Synapse School
Weather: Fair

AUTO-CENSUS
Traffic Monitoring and Analysis
5973 Larkstone Loop
San Jose, Ca. 95123
Phone 408-533-3398

	Driveway 1 & 2		Driveway 3		Driveway 4		Driveway 5 & 6		Driveway 7		On-Street		
Start Time	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	
7:00	0	0	0	0	0	0	0	0	0	0	0	0	
7:15	1	0	2	0	0	0	1	0	0	0	0	0	
7:30	2	0	2	0	0	0	2	0	2	0	0	0	
7:45	5	1	3	0	0	0	6	0	3	1	0	0	
8:00	10	2	4	0	0	0	8	0	4	5	0	0	
8:15	27	10	5	0	0	0	10	2	4	9	0	0	
8:30	53	13	5	0	0	0	14	8	4	32	0	0	
8:45	104	21	5	0	0	0	19	20	4	59	0	0	
9:00	114	27	5	0	0	0	19	29	4	53	0	0	
Peak Hour													Hourly Totals
7:00 - 8:00	10	2	4	0	0	0	8	0	4	5	0	0	33
7:15 - 8:15	26	10	3	0	0	0	9	2	4	9	0	0	63
7:30 - 8:30	51	13	3	0	0	0	12	8	2	32	0	0	121
7:45 - 8:45	99	20	2	0	0	0	13	20	1	58	0	0	213
8:00 - 9:00	104	25	1	0	0	0	11	29	0	48	0	0	218
Peak Volumes:	**104**	**25**	**1**	**0**	**0**	**0**	**11**	**29**	**0**	**48**	**0**	**0**	**218**

27 total spaces
DWY 5, 6,7

	Lot total
800	12
815	15
830	15
845	20
900	14

116

19 total spaces
DWY 1 & 2

	Lot total	
800	5	21
815	5	25
830	8	28
845	12	**37**
900	17	36

102

	Queue
830	0
835	0
840	2
845	0
850	0
855	0
900	0

AM Peak-Hour Volume Count Worksheet

Date: 11/6/2019
Counter: Kilbee, Patti, Jo
Intersection Name: Synapse School
Weather: Fair

AUTO-CENSUS
Traffic Monitoring and Analysis
5973 Larkstone Loop
San Jose, Ca. 95123
Phone 408-533-3398

Start Time	Driveway 1 & 2 IN	Driveway 1 & 2 OUT	Driveway 3 IN	Driveway 3 OUT	Driveway 4 IN	Driveway 4 OUT	Driveway 5 & 6 IN	Driveway 5 & 6 OUT	Driveway 7 IN	Driveway 7 OUT	On-Street IN	On-Street OUT
7:00	0	0	0	0	0	0	0	0	0	0	0	0
7:15	1	0	1	0	0	0	0	0	0	0	0	0
7:30	3	1	3	0	0	0	2	0	0	1	0	0
7:45	4	1	4	0	0	0	3	0	1	1	0	0
8:00	14	3	4	0	0	0	9	0	3	2	0	0
8:15	22	5	5	0	0	0	15	3	4	5	0	0
8:30	60	8	5	0	0	0	22	13	4	21	0	0
8:45	110	16	5	0	0	0	33	38	4	48	0	0
9:00	131	21	5	0	0	0	34	43	4	59	0	0

Peak Hour	Driveway 1 & 2 IN	Driveway 1 & 2 OUT	Driveway 3 IN	Driveway 3 OUT	Driveway 4 IN	Driveway 4 OUT	Driveway 5 & 6 IN	Driveway 5 & 6 OUT	Driveway 7 IN	Driveway 7 OUT	On-Street IN	On-Street OUT	Hourly Totals
7:00 - 8:00	14	3	4	0	0	0	9	0	3	2	0	0	35
7:15 - 8:15	21	5	4	0	0	0	15	3	4	5	0	0	57
7:30 - 8:30	57	7	2	0	0	0	20	13	4	20	0	0	123
7:45 - 8:45	106	15	1	0	0	0	30	38	3	47	0	0	240
8:00 - 9:00	117	18	1	0	0	0	25	43	1	57	0	0	262
Peak Volumes:	**117**	**18**	**1**	**0**	**0**	**0**	**25**	**43**	**1**	**57**	**0**	**0**	**262**

27 total spaces
DWY 5, 6,7

	Lot total
800	9
815	18
830	19
845	24
900	26

144

19 total spaces
DWY 1 & 2

	Lot total	
800	5	18
815	7	30
830	12	36
845	16	45
900	19	**50**

118

Queue	
830	0
835	0
840	3
845	0
850	0
855	0
900	0

AM Peak-Hour Volume Count Worksheet

Date: 11/7/2019
Counter: Kilbee, Patti, Jo
Intersection Name: Synapse School
Weather: Fair

AUTO-CENSUS
Traffic Monitoring and Analysis
5973 Larkstone Loop
San Jose, Ca. 95123
Phone 408-533-3398

Start Time	Driveway 1 & 2 IN	Driveway 1 & 2 OUT	Driveway 3 IN	Driveway 3 OUT	Driveway 4 IN	Driveway 4 OUT	Driveway 5 & 6 IN	Driveway 5 & 6 OUT	Driveway 7 IN	Driveway 7 OUT	On-Street IN	On-Street OUT
7:00	0	0	0	0	0	0	0	0	0	0	0	0
7:15	2	0	1	0	0	0	1	0	0	0	0	0
7:30	3	0	2	0	0	0	1	0	1	0	0	0
7:45	4	0	3	0	0	0	3	0	4	0	0	0
8:00	11	1	4	0	0	0	6	1	4	0	0	0
8:15	26	2	5	0	0	0	11	3	5	5	0	0
8:30	34	6	5	0	0	0	18	9	5	12	0	0
8:45	105	15	5	0	0	0	29	24	5	45	0	0
9:00	122	23	5	0	0	0	31	35	5	56	0	0

Peak Hour	Driveway 1 & 2 IN	Driveway 1 & 2 OUT	Driveway 3 IN	Driveway 3 OUT	Driveway 4 IN	Driveway 4 OUT	Driveway 5 & 6 IN	Driveway 5 & 6 OUT	Driveway 7 IN	Driveway 7 OUT	On-Street IN	On-Street OUT	Hourly Totals
7:00 - 8:00	11	1	4	0	0	0	6	1	4	0	0	0	27
7:15 - 8:15	24	2	4	0	0	0	10	3	5	5	0	0	53
7:30 - 8:30	31	6	3	0	0	0	17	9	4	12	0	0	82
7:45 - 8:45	101	15	2	0	0	0	26	24	1	45	0	0	214
8:00 - 9:00	111	22	1	0	0	0	25	34	1	56	0	0	250
Peak Volumes:	**111**	**22**	**1**	**0**	**0**	**0**	**25**	**34**	**1**	**56**	**0**	**0**	**250**

27 total spaces
DWY 5, 6,7

	Lot total
800	11
815	15
830	21
845	27
900	20

138

19 total spaces
DWY 1 & 2

	Lot total	
800	5	20
815	13	33
830	11	37
845	15	**47**
900	9	34

112

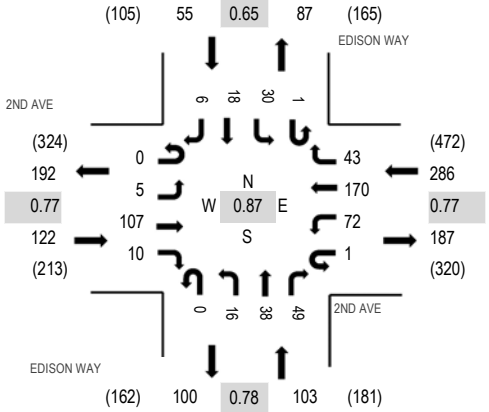
	Queue
830	0
835	0
840	2
845	5
850	0
855	0
900	0

Appendix B
Intersection Peak Hour Traffic Counts

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

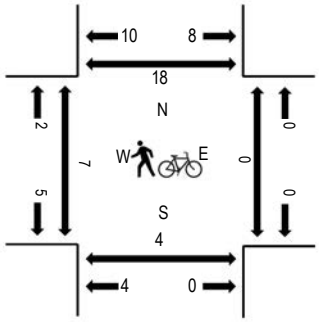
Location: 1 EDISON WAY & 2ND AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	2ND AVE Eastbound				2ND AVE Westbound				EDISON WAY Northbound				EDISON WAY Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	14	3	0	3	20	8	1	5	7	3	0	6	8	0	78	480	4	0	1	4
7:15 AM	0	1	23	3	1	5	27	14	0	2	11	9	0	2	7	2	107	564	4	1	2	4
7:30 AM	0	1	18	1	0	12	45	14	0	8	12	4	0	11	9	4	139	566	2	0	0	5
7:45 AM	0	2	34	4	0	20	49	6	0	3	7	18	0	7	5	1	156	541	5	0	2	4
8:00 AM	0	1	38	3	1	28	49	15	0	2	4	12	1	5	2	1	162	491	0	0	1	4
8:15 AM	0	1	17	2	0	12	27	8	0	3	15	15	0	7	2	0	109		0	0	0	5
8:30 AM	0	0	22	1	0	12	36	10	0	2	9	8	0	7	7	0	114		1	0	3	7
8:45 AM	0	1	22	1	1	8	33	8	0	3	9	9	0	6	3	2	106		1	0	0	1

Peak Rolling Hour Flow Rates

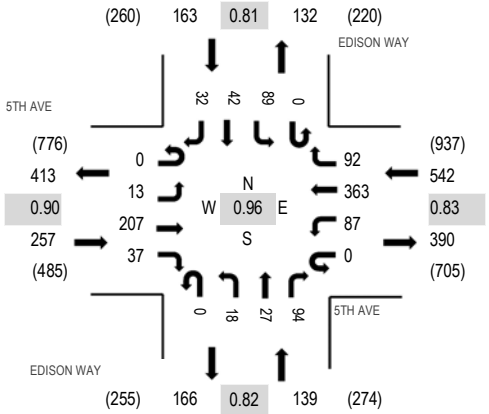
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	4	105	10	1	71	168	43	0	16	35	46	1	28	18	6	552
Mediums	0	1	2	0	0	1	2	0	0	0	3	3	0	2	0	0	14
Total	0	5	107	10	1	72	170	43	0	16	38	49	1	30	18	6	566

All Traffic Data Services Inc.

(303) 216-2439
www.alltrafficdata.net

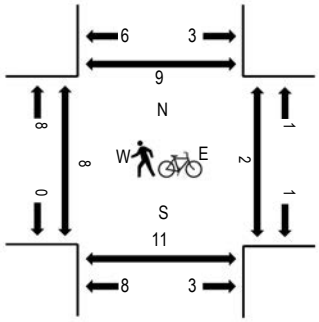
Location: 2 EDISON WAY & 5TH AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	5TH AVE Eastbound				5TH AVE Westbound				EDISON WAY Northbound				EDISON WAY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	1	35	2	0	10	69	16	0	2	2	9	0	17	8	1	172	967	0	0	3	2
7:15 AM	0	4	50	2	0	6	106	18	0	2	5	7	0	17	7	6	230	1,057	0	0	4	1
7:30 AM	0	2	47	7	0	15	118	32	0	1	4	13	0	22	11	6	278	1,101	0	2	1	2
7:45 AM	0	5	61	10	0	28	89	22	0	1	5	19	0	27	8	12	287	1,057	3	0	5	0
8:00 AM	0	3	43	4	0	19	78	19	0	8	6	30	0	23	18	11	262	989	2	0	2	6
8:15 AM	0	3	56	16	0	25	78	19	0	8	12	32	0	17	5	3	274		1	0	2	0
8:30 AM	0	3	52	17	0	11	62	7	0	23	6	33	0	8	7	5	234		0	2	2	2
8:45 AM	0	4	53	5	0	9	68	13	0	11	9	26	0	8	5	8	219		0	0	2	0

Peak Rolling Hour Flow Rates

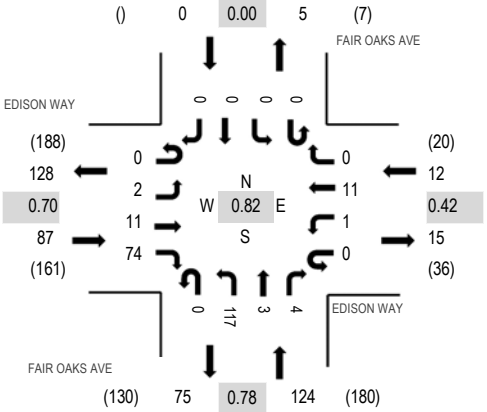
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3
Lights	0	13	200	37	0	85	345	89	0	18	26	89	0	89	42	31	1,064
Mediums	0	0	7	0	0	2	15	3	0	0	1	5	0	0	0	1	34
Total	0	13	207	37	0	87	363	92	0	18	27	94	0	89	42	32	1,101

All Traffic Data Services Inc.

(303) 216-2439
www.alltrafficdata.net

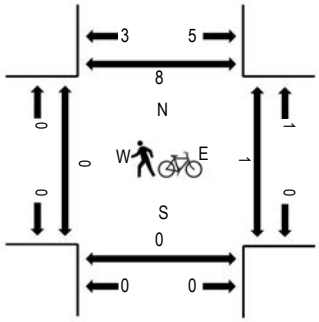
Location: 3 FAIR OAKS AVE & EDISON WAY AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	EDISON WAY Eastbound				EDISON WAY Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	1	7	8	0	0	1	0	0	10	0	1	0	0	0	0	28	145	0	0	0	2
7:15 AM	0	0	1	10	0	0	1	0	0	13	1	0	0	0	0	0	26	185	0	0	0	2
7:30 AM	0	0	6	17	0	0	4	0	0	14	0	1	0	0	0	0	42	216	0	0	0	2
7:45 AM	0	0	2	16	0	0	9	0	0	20	2	0	0	0	0	0	49	223	0	0	0	2
8:00 AM	0	0	3	30	0	0	0	0	0	34	0	1	0	0	0	0	68	216	0	1	0	2
8:15 AM	0	0	2	13	0	1	1	0	0	37	0	3	0	0	0	0	57		0	0	0	3
8:30 AM	0	2	4	15	0	0	1	0	0	26	1	0	0	0	0	0	49		0	0	0	1
8:45 AM	0	0	4	20	0	0	2	0	0	15	0	1	0	0	0	0	42		0	0	0	3

Peak Rolling Hour Flow Rates

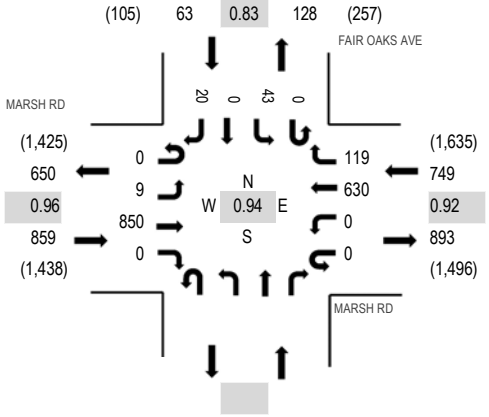
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	2	11	72	0	1	11	0	0	116	3	4	0	0	0	0	220
Mediums	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	3
Total	0	2	11	74	0	1	11	0	0	117	3	4	0	0	0	0	223

All Traffic Data Services Inc.

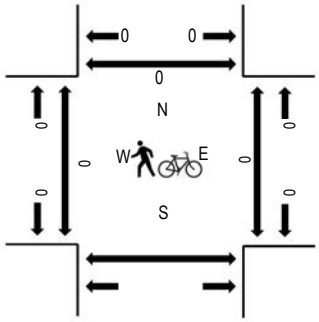
(303) 216-2439
www.alltrafficdata.net

Location: 4 FAIR OAKS AVE & MARSH RD AM
Date: Wednesday, September 5, 2018
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	126	0	0	0	197	19					0	4	0	4	350	1,507	0	0		1
7:15 AM	0	0	139	0	0	0	228	12					0	3	0	4	386	1,545	0	0		0
7:30 AM	0	0	155	0	0	0	203	37					0	7	0	5	407	1,604	0	0		0
7:45 AM	0	2	157	0	0	0	131	59					0	12	0	3	364	1,626	0	0		0
8:00 AM	0	0	196	0	0	0	125	49					0	14	0	4	388	1,671	0	0		0
8:15 AM	0	6	217	0	0	0	171	38					0	8	0	5	445		0	0		0
8:30 AM	0	3	221	0	0	0	174	18					0	9	0	4	429		0	0		0
8:45 AM	0	0	216	0	0	0	160	14					0	12	0	7	409		0	0		0

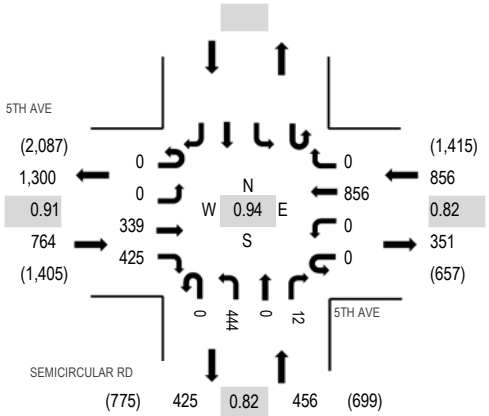
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	4	0	0	0	8	0					0	0	0	0	12
Lights	0	9	825	0	0	0	586	110					0	43	0	20	1,593
Mediums	0	0	21	0	0	0	36	9					0	0	0	0	66
Total	0	9	850	0	0	0	630	119					0	43	0	20	1,671

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

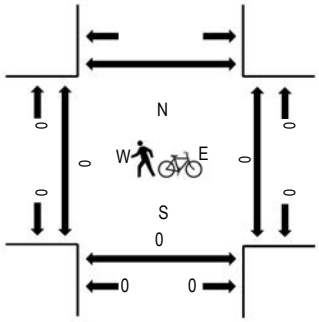
Location: 5 SEMICIRCULAR RD & 5TH AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	5TH AVE Eastbound				5TH AVE Westbound				SEMICIRCULAR RD Northbound				Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	42	45	0	0	104	0	0	46	0	3					240	1,678	0	0	0	
7:15 AM	0	0	62	68	0	0	175	0	0	70	0	2					377	1,990	0	0	0	
7:30 AM	0	0	72	92	0	0	266	0	0	107	0	1					538	2,076	0	0	0	
7:45 AM	0	0	91	109	0	0	216	0	0	104	0	3					523	1,971	0	0	0	
8:00 AM	0	0	89	109	0	0	215	0	0	135	0	4					552	1,841	0	0	0	
8:15 AM	0	0	87	115	0	0	159	0	0	98	0	4					463		0	0	0	
8:30 AM	0	0	93	135	0	0	151	0	0	47	0	7					433		0	0	0	
8:45 AM	0	0	94	102	0	0	129	0	0	65	0	3					393		0	0	0	

Peak Rolling Hour Flow Rates

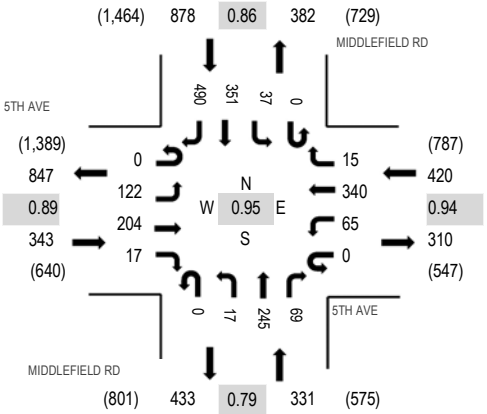
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	1	0	0	1	0	0					2
Lights	0	0	337	417	0	0	832	0	0	438	0	12					2,036
Mediums	0	0	2	8	0	0	23	0	0	5	0	0					38
Total	0	0	339	425	0	0	856	0	0	444	0	12					2,076

All Traffic Data Services Inc.

(303) 216-2439
www.alltrafficdata.net

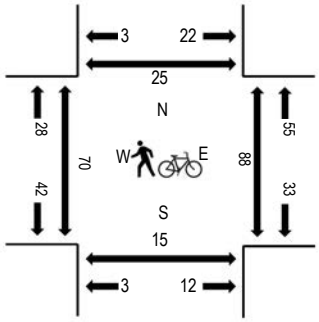
Location: 6 MIDDLEFIELD RD & 5TH AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	5TH AVE Eastbound				5TH AVE Westbound				MIDDLEFIELD RD Northbound				MIDDLEFIELD RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	19	21	3	0	6	54	7	0	0	30	8	0	9	69	44	270	1,693	6	3	4	2
7:15 AM	0	19	39	6	0	20	79	11	0	3	43	6	0	8	75	90	399	1,943	3	7	1	0
7:30 AM	0	22	40	7	0	12	96	5	0	2	46	8	0	13	92	164	507	1,972	8	23	6	0
7:45 AM	0	33	62	2	0	13	87	5	0	1	40	21	0	13	109	131	517	1,878	27	26	1	4
8:00 AM	0	37	40	7	0	19	76	0	0	7	88	21	0	9	100	116	520	1,773	21	24	8	11
8:15 AM	0	30	62	1	0	21	81	5	0	7	71	19	0	2	50	79	428		14	11	0	6
8:30 AM	0	30	51	6	0	18	74	8	0	0	63	15	0	5	75	68	413		6	1	1	0
8:45 AM	0	43	58	2	0	8	70	12	0	3	62	11	0	6	80	57	412		6	2	1	0

Peak Rolling Hour Flow Rates

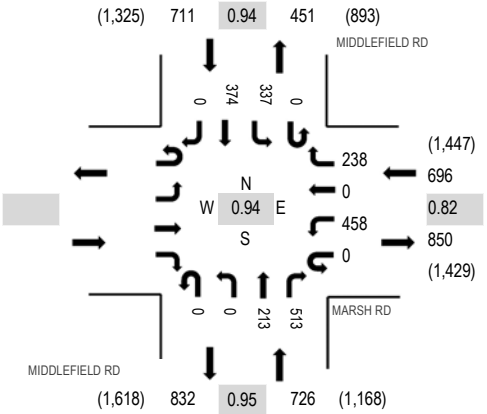
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Lights	0	121	203	17	0	62	329	14	0	13	239	67	0	35	339	452	1,891
Mediums	0	1	1	0	0	3	11	1	0	3	6	2	0	2	12	38	80
Total	0	122	204	17	0	65	340	15	0	17	245	69	0	37	351	490	1,972

All Traffic Data Services Inc.

(303) 216-2439
www.alltrafficdata.net

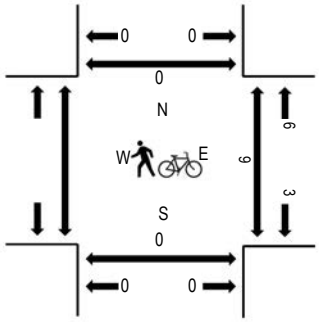
Location: 7 MIDDLEFIELD RD & MARSH RD AM
Date: Wednesday, September 5, 2018
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				MIDDLEFIELD RD Northbound				MIDDLEFIELD RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM					0	109	0	94	0	0	16	63	0	61	48	0	391	1,807		3	0	0
7:15 AM					0	127	0	102	0	0	34	60	0	75	83	0	481	1,913		4	0	0
7:30 AM					0	122	0	62	0	0	38	72	0	88	121	0	503	1,998		0	0	0
7:45 AM					0	91	0	44	0	0	52	107	0	53	85	0	432	2,037		1	0	0
8:00 AM					0	95	0	43	0	0	58	132	0	70	99	0	497	2,133		1	0	0
8:15 AM					0	121	0	65	0	0	57	134	0	79	110	0	566			4	0	0
8:30 AM					0	125	0	56	0	0	45	126	0	92	98	0	542			2	0	0
8:45 AM					0	117	0	74	0	0	53	121	0	96	67	0	528			2	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks					0	3	0	4	0	0	1	1	0	4	0	0	13
Lights					0	429	0	216	0	0	206	497	0	326	350	0	2,024
Mediums					0	26	0	18	0	0	6	15	0	7	24	0	96
Total					0	458	0	238	0	0	213	513	0	337	374	0	2,133

All Traffic Data Services Inc.

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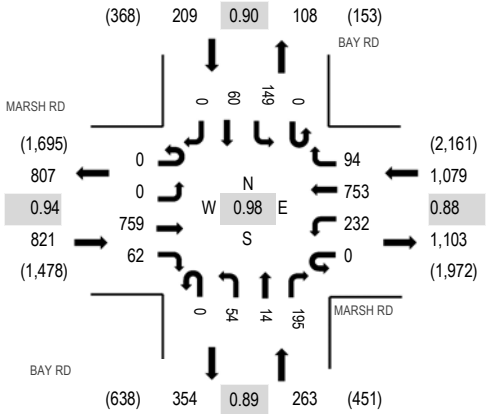
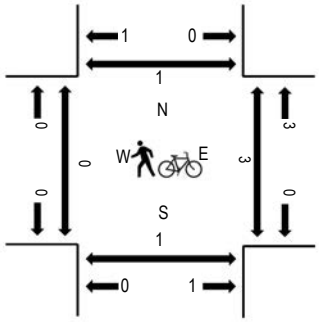
Location: 8 BAY RD & MARSH RD AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:30 AM - 08:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				BAY RD Northbound				BAY RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	125	6	0	37	210	10	0	6	0	23	0	21	3	1	442	2,146	0	0	0	1
7:15 AM	0	0	135	11	0	44	226	13	0	9	2	42	0	32	2	3	519	2,275	0	1	0	1
7:30 AM	0	0	142	6	0	66	260	7	0	15	2	45	0	29	19	1	592	2,356	0	0	0	0
7:45 AM	0	0	152	22	0	65	197	33	0	25	3	46	0	36	14	0	593	2,372	0	0	0	0
8:00 AM	0	0	185	14	0	57	170	34	0	9	1	49	0	39	13	0	571	2,312	0	0	0	1
8:15 AM	0	0	206	9	0	61	193	17	0	9	5	51	0	36	13	0	600		0	0	0	0
8:30 AM	0	0	216	17	0	49	193	10	0	11	5	49	0	38	20	0	608		0	0	0	0
8:45 AM	0	0	211	21	0	53	149	7	0	7	4	33	0	31	16	1	533		0	1	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	2	0	0	0	7	0	0	0	0	0	0	0	0	0	9
Lights	0	0	739	60	0	228	707	91	0	54	14	195	0	147	59	0	2,294
Mediums	0	0	18	2	0	4	39	3	0	0	0	0	0	2	1	0	69
Total	0	0	759	62	0	232	753	94	0	54	14	195	0	149	60	0	2,372

All Traffic Data Services Inc.

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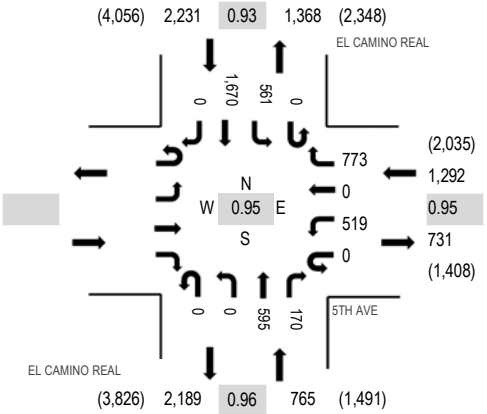
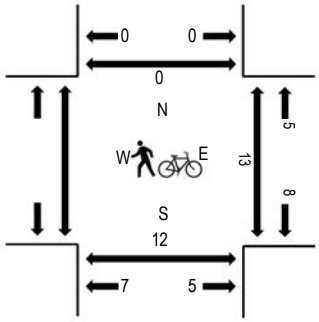
Location: 9 EL CAMINO REAL & 5TH AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	Eastbound				5TH AVE Westbound				EL CAMINO REAL Northbound				EL CAMINO REAL Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM					0	59	0	79	0	0	84	20	0	75	215	0	532	3,414		4	1	0
7:15 AM					0	99	0	116	0	0	108	28	0	107	308	0	766	3,925		5	0	0
7:30 AM					0	143	0	191	0	0	104	37	0	109	444	0	1,028	4,288		3	1	0
7:45 AM					0	143	0	198	0	0	131	47	0	149	420	0	1,088	4,265		1	2	0
8:00 AM					0	121	0	203	0	0	180	35	0	134	370	0	1,043	4,168		4	5	0
8:15 AM					0	112	0	181	0	0	180	51	0	169	436	0	1,129			2	0	0
8:30 AM					0	84	0	110	0	0	180	63	0	176	392	0	1,005			4	3	0
8:45 AM					0	81	0	115	0	0	187	56	1	152	399	0	991			1	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks					0	2	0	0	0	0	5	0	0	0	5	0	12
Lights					0	502	0	755	0	0	567	168	0	552	1,623	0	4,167
Mediums					0	15	0	18	0	0	23	2	0	9	42	0	109
Total					0	519	0	773	0	0	595	170	0	561	1,670	0	4,288

All Traffic Data Services Inc.
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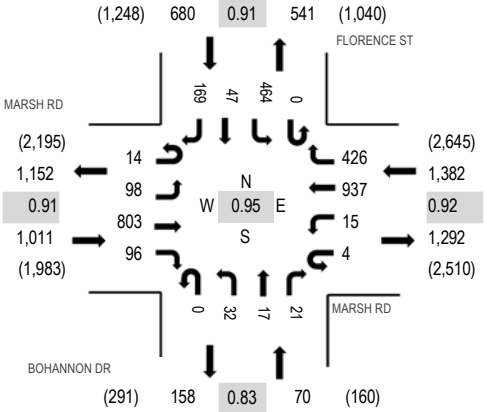
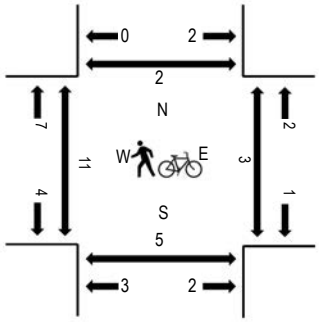
Location: 10 BOHANNON DR & MARSH RD AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				BOHANNON DR Northbound				FLORENCE ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	1	14	139	14	0	5	241	129	0	5	11	9	0	92	7	28	695	3,021	0	2	1	0
7:15 AM	2	23	164	14	2	5	232	103	0	15	2	9	0	130	6	45	752	3,124	0	1	0	0
7:30 AM	6	17	184	20	0	3	285	110	0	7	4	6	0	132	11	44	829	3,143	6	1	1	0
7:45 AM	4	27	181	18	4	5	219	118	0	4	1	4	0	106	12	42	745	3,054	3	1	3	1
8:00 AM	3	24	223	28	0	1	233	119	0	13	2	4	0	102	8	38	798	3,015	2	0	1	0
8:15 AM	1	30	215	30	0	6	200	79	0	8	10	7	0	124	16	45	771		0	0	0	0
8:30 AM	1	32	249	34	0	4	197	78	0	10	4	11	0	74	6	40	740		3	0	0	0
8:45 AM	0	23	238	24	0	2	188	77	0	8	3	3	0	98	12	30	706		3	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	2	0	0	0	6	6	0	0	0	0	0	5	0	0	19
Lights	14	98	787	92	3	14	891	400	0	29	17	21	0	443	45	165	3,019
Mediums	0	0	14	4	1	1	40	20	0	3	0	0	0	16	2	4	105
Total	14	98	803	96	4	15	937	426	0	32	17	21	0	464	47	169	3,143

All Traffic Data Services Inc.
(303) 216-2439
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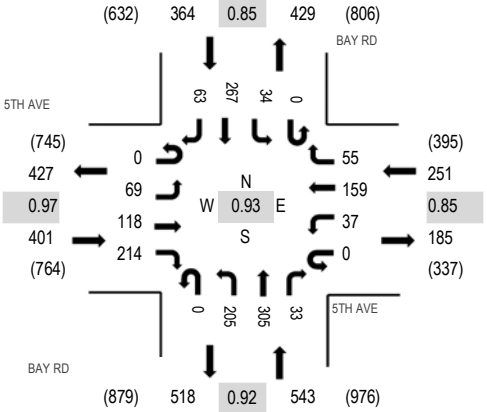
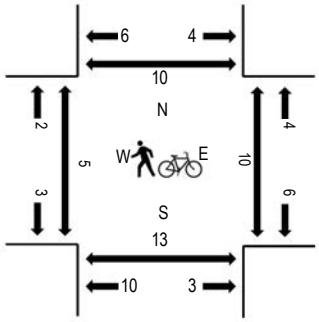
Location: 11 BAY RD & 5TH AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	5TH AVE Eastbound				5TH AVE Westbound				BAY RD Northbound				BAY RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	16	26	31	0	2	30	9	0	44	75	3	0	6	40	12	294	1,470	2	0	0	0
7:15 AM	0	16	23	49	0	8	39	12	0	41	77	8	0	4	65	16	358	1,559	2	3	2	3
7:30 AM	0	18	26	58	0	13	45	16	0	57	72	9	0	15	74	18	421	1,528	1	3	1	3
7:45 AM	0	19	32	53	0	5	46	20	0	57	82	8	0	6	54	15	397	1,392	2	2	4	2
8:00 AM	0	16	37	54	0	11	29	7	0	50	74	8	0	9	74	14	383	1,297	0	2	4	2
8:15 AM	0	21	37	44	0	7	19	6	0	46	73	3	0	4	54	13	327		4	2	1	1
8:30 AM	0	29	29	33	0	7	26	3	0	36	54	5	0	6	39	18	285		4	0	1	2
8:45 AM	0	31	25	41	0	4	25	6	0	37	54	3	0	5	59	12	302		0	0	1	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	1	0	0	1	0	0	0	3	0	0	0	4	0	9
Lights	0	67	112	202	0	34	153	54	0	198	292	31	0	32	255	57	1,487
Mediums	0	2	6	11	0	3	5	1	0	7	10	2	0	2	8	6	63
Total	0	69	118	214	0	37	159	55	0	205	305	33	0	34	267	63	1,559

All Traffic Data Services Inc.

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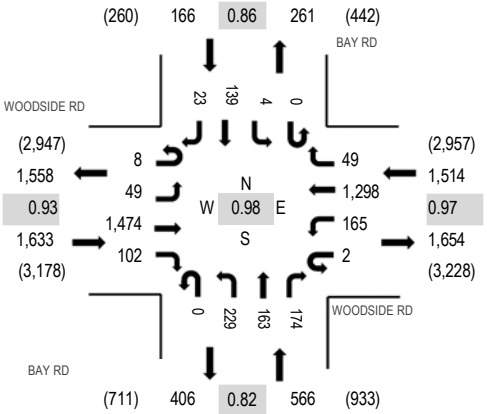
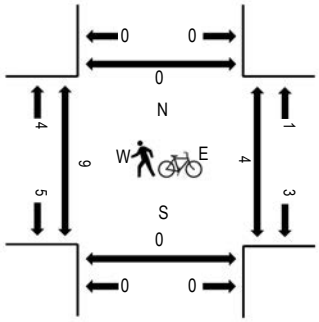
Location: 12 BAY RD & WOODSIDE RD AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	WOODSIDE RD Eastbound				WOODSIDE RD Westbound				BAY RD Northbound				BAY RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	1	4	355	17	0	29	308	9	0	32	17	23	0	0	12	2	809	3,686	0	0	0	0
7:15 AM	2	9	347	18	1	52	332	14	0	43	33	32	0	0	24	5	912	3,849	0	0	0	0
7:30 AM	1	11	414	15	0	42	348	15	0	48	27	31	0	1	29	7	989	3,879	1	0	0	0
7:45 AM	4	14	347	28	2	49	314	10	0	73	45	44	0	2	36	8	976	3,721	4	0	0	0
8:00 AM	3	12	317	27	0	41	336	15	0	60	57	56	0	0	45	3	972	3,642	0	2	0	0
8:15 AM	0	12	396	32	0	33	300	9	0	48	34	43	0	1	29	5	942		3	1	0	0
8:30 AM	2	8	312	13	0	40	312	14	0	26	27	51	0	0	23	3	831		1	5	0	3
8:45 AM	1	11	416	29	1	27	291	13	0	26	22	35	0	1	21	3	897		0	1	1	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	16	1	0	1	18	2	0	2	0	10	0	0	0	1	51
Lights	8	46	1,408	99	2	143	1,204	47	0	217	159	147	0	4	136	21	3,641
Mediums	0	3	50	2	0	21	76	0	0	10	4	17	0	0	3	1	187
Total	8	49	1,474	102	2	165	1,298	49	0	229	163	174	0	4	139	23	3,879

All Traffic Data Services Inc.

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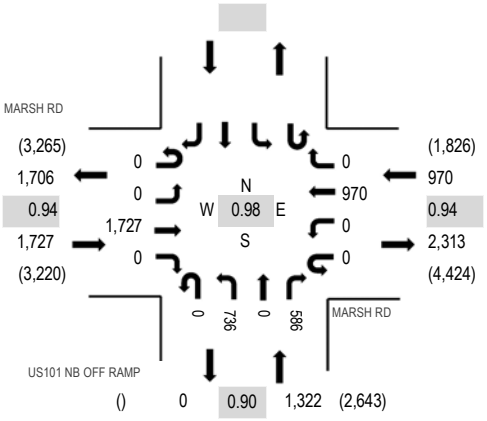
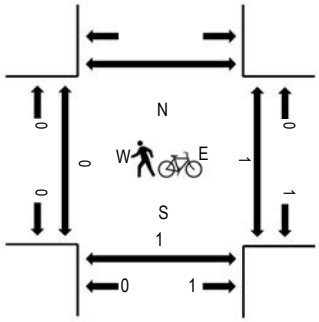
Location: 14 US101 NB OFF RAMP & MARSH RD AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				US101 NB OFF RAMP Northbound				Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	278	0	0	0	205	0	0	233	0	98					814	3,707	0	0	0	
7:15 AM	0	0	363	0	0	0	268	0	0	175	0	91					897	3,888	0	0	0	
7:30 AM	0	0	419	0	0	0	235	0	0	221	0	142					1,017	4,019	0	0	0	
7:45 AM	0	0	424	0	0	0	249	0	0	175	0	131					979	3,956	0	1	0	
8:00 AM	0	0	422	0	0	0	257	0	0	175	0	141					995	3,982	0	0	0	
8:15 AM	0	0	462	0	0	0	229	0	0	165	0	172					1,028		0	0	0	
8:30 AM	0	0	417	0	0	0	196	0	0	138	0	203					954		0	0	0	
8:45 AM	0	0	435	0	0	0	187	0	0	157	0	226					1,005		0	0	0	

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	14	0	0	0	7	0	0	2	0	9					32
Lights	0	0	1,641	0	0	0	872	0	0	716	0	540					3,769
Mediums	0	0	72	0	0	0	91	0	0	18	0	37					218
Total	0	0	1,727	0	0	0	970	0	0	736	0	586					4,019

All Traffic Data Services Inc.
(303) 216-2439
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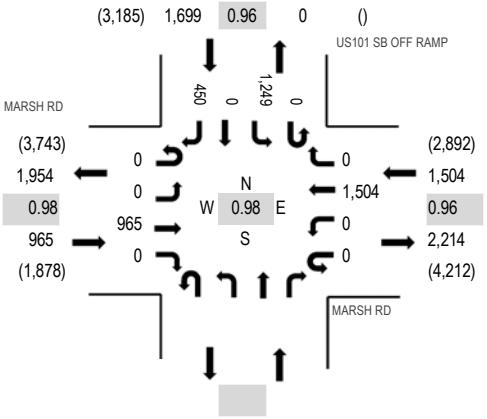
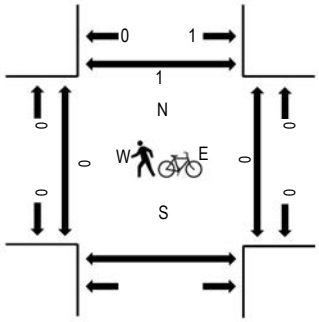
Location: 15 US101 SB OFF RAMP & MARSH RD AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				Northbound				US101 SB OFF RAMP Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	170	0	0	0	404	0					0	230	0	112	916	3,926	0	0		0
7:15 AM	0	0	195	0	0	0	389	0					0	246	0	114	944	4,068	0	0		0
7:30 AM	0	0	218	0	0	0	396	0					0	304	0	122	1,040	4,168	0	0		0
7:45 AM	0	0	222	0	0	0	362	0					0	328	0	114	1,026	4,099	0	0		0
8:00 AM	0	0	251	0	0	0	396	0					0	310	0	101	1,058	4,029	0	0		0
8:15 AM	0	0	274	0	0	0	350	0					0	307	0	113	1,044		0	0		0
8:30 AM	0	0	274	0	0	0	295	0					0	292	0	110	971		0	0		0
8:45 AM	0	0	274	0	0	0	300	0					0	317	0	65	956		0	0		1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	5	0	0	0	10	0					0	15	0	4	34
Lights	0	0	936	0	0	0	1,430	0					0	1,180	0	433	3,979
Mediums	0	0	24	0	0	0	64	0					0	54	0	13	155
Total	0	0	965	0	0	0	1,504	0					0	1,249	0	450	4,168

All Traffic Data Services Inc.
(303) 216-2439
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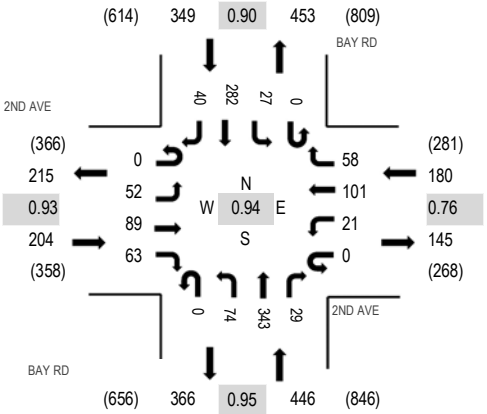
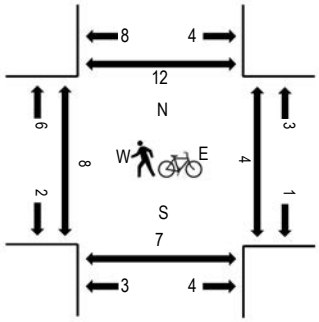
Location: 16 BAY RD & 2ND AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	2ND AVE Eastbound				2ND AVE Westbound				BAY RD Northbound				BAY RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	9	11	14	0	3	9	7	0	17	84	8	0	4	39	6	211	1,096	3	1	2	0
7:15 AM	0	15	17	17	0	7	19	8	0	16	89	5	0	5	63	4	265	1,179	3	1	0	7
7:30 AM	0	11	25	19	0	3	20	18	0	25	85	6	0	5	80	9	306	1,158	1	0	2	1
7:45 AM	0	16	23	13	0	7	36	16	0	14	93	12	0	9	64	11	314	1,084	2	2	3	3
8:00 AM	0	10	24	14	0	4	26	16	0	19	76	6	0	8	75	16	294	1,003	0	1	1	1
8:15 AM	0	11	18	14	0	4	9	11	0	21	71	7	0	10	56	12	244		6	1	4	2
8:30 AM	0	13	10	16	0	9	19	8	0	21	61	11	0	8	50	6	232		5	0	0	2
8:45 AM	0	9	17	12	0	9	13	0	0	16	72	11	0	8	64	2	233		2	0	1	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	0	0	0	0	1	0	0	2	1	0	0	0	2	0	7
Lights	0	48	86	61	0	19	100	55	0	71	328	27	0	25	266	37	1,123
Mediums	0	3	3	2	0	2	0	3	0	1	14	2	0	2	14	3	49
Total	0	52	89	63	0	21	101	58	0	74	343	29	0	27	282	40	1,179

All Traffic Data Services Inc.
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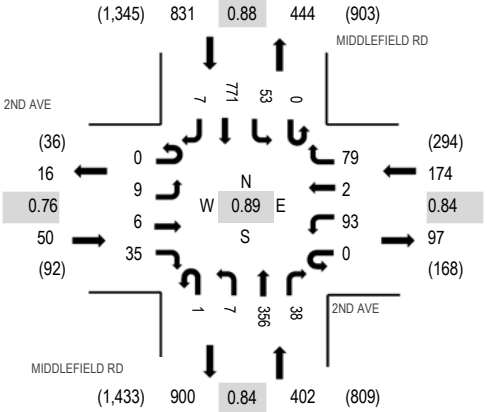
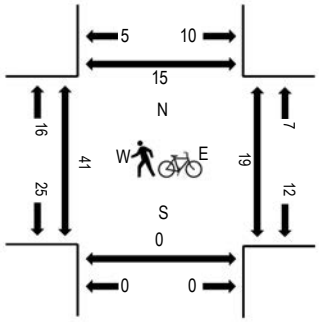
Location: 17 MIDDLEFIELD RD & 2ND AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	2ND AVE Eastbound				2ND AVE Westbound				MIDDLEFIELD RD Northbound				MIDDLEFIELD RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	8	0	13	0	4	0	19	0	1	62	7	0	7	103	2	226	1,275	2	5	1	4
7:15 AM	0	2	1	6	0	15	0	16	0	3	83	2	0	17	155	2	302	1,457	4	3	0	4
7:30 AM	0	5	1	14	0	25	0	25	0	0	76	6	0	7	205	1	365	1,437	11	5	0	5
7:45 AM	0	2	1	11	0	23	0	18	1	2	74	13	0	13	222	2	382	1,352	15	4	0	4
8:00 AM	0	0	3	4	0	30	2	20	0	2	123	17	0	16	189	2	408	1,265	10	7	0	2
8:15 AM	0	2	2	3	0	7	1	22	0	1	112	6	0	6	117	3	282		4	5	0	1
8:30 AM	0	1	0	7	0	16	0	21	0	3	88	10	0	11	122	1	280		5	1	1	0
8:45 AM	0	2	0	4	0	13	1	16	0	2	106	9	0	13	124	5	295		2	1	0	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2
Lights	0	9	6	35	0	93	2	78	1	7	348	38	0	49	749	7	1,422
Mediums	0	0	0	0	0	0	0	1	0	0	7	0	0	4	21	0	33
Total	0	9	6	35	0	93	2	79	1	7	356	38	0	53	771	7	1,457

All Traffic Data Services Inc.
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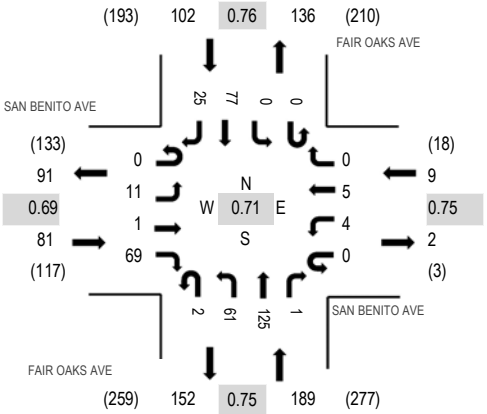
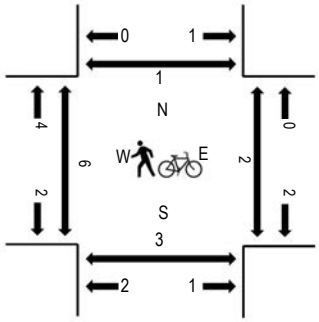
Location: 18 FAIR OAKS AVE & SAN BENITO AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	SAN BENITO AVE Eastbound				SAN BENITO AVE Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	2	0	0	0	0	1	3	19	0	0	0	11	1	37	246	2	0	0	0
7:15 AM	0	0	0	4	0	1	2	0	0	5	18	0	0	0	18	2	50	343	1	0	0	0
7:30 AM	0	3	0	8	0	1	2	0	0	9	15	0	0	0	24	8	70	377	3	1	0	0
7:45 AM	0	2	0	13	0	0	0	0	1	23	27	0	0	0	17	6	89	381	1	0	1	0
8:00 AM	0	4	1	26	0	2	1	0	0	24	39	0	0	0	29	8	134	359	3	0	2	0
8:15 AM	0	5	0	17	0	0	2	0	1	6	35	0	0	0	13	5	84		0	0	0	0
8:30 AM	0	0	0	13	0	2	2	0	0	8	24	1	0	0	18	6	74		2	2	0	1
8:45 AM	1	3	1	14	0	1	2	0	0	2	16	0	0	0	22	5	67		0	3	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	11	1	68	0	4	5	0	2	61	124	0	0	0	76	25	377
Mediums	0	0	0	1	0	0	0	0	0	0	1	1	0	0	1	0	4
Total	0	11	1	69	0	4	5	0	2	61	125	1	0	0	77	25	381

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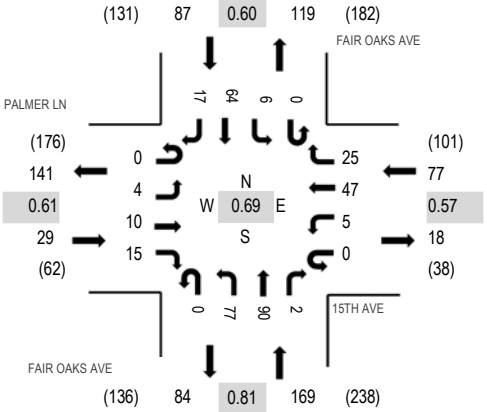
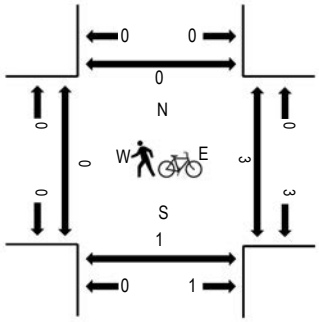
Location: 19 FAIR OAKS AVE & 15TH AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	PALMER LN Eastbound				15TH AVE Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	1	0	1	0	2	0	3	13	1	0	0	5	3	29	222	1	1	1	0
7:15 AM	0	1	2	1	0	0	3	3	0	4	10	0	0	0	7	1	32	325	1	0	0	0
7:30 AM	0	0	4	3	0	0	6	2	0	17	12	0	0	0	12	4	60	362	0	0	0	0
7:45 AM	0	0	1	5	0	1	12	8	0	23	28	1	0	1	14	7	101	360	0	0	1	0
8:00 AM	0	2	5	3	0	1	23	10	0	21	30	1	0	2	29	5	132	310	0	1	0	0
8:15 AM	0	2	0	4	0	3	6	5	0	16	20	0	0	3	9	1	69		0	2	0	0
8:30 AM	0	1	2	7	0	0	3	6	1	8	15	1	0	3	10	1	58		0	0	0	0
8:45 AM	0	1	10	7	0	0	5	1	0	3	10	0	0	1	12	1	51		4	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	4	10	15	0	5	46	25	0	77	89	1	0	6	64	17	359
Mediums	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	3
Total	0	4	10	15	0	5	47	25	0	77	90	2	0	6	64	17	362

All Traffic Data Services Inc.

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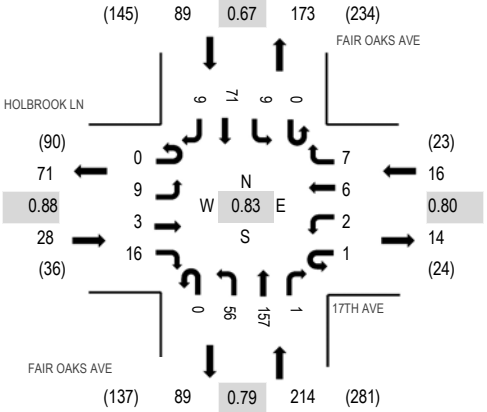
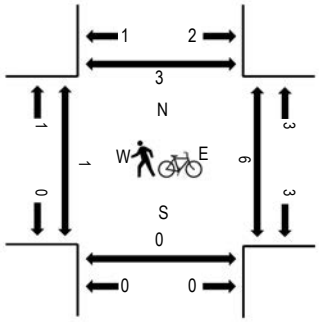
Location: 20 FAIR OAKS AVE & 17TH AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	HOLBROOK LN Eastbound				17TH AVE Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	0	1	0	0	2	15	1	0	0	7	1	27	229	1	0	0	0
7:15 AM	0	3	0	1	0	0	0	0	0	3	10	0	0	0	9	2	28	306	0	1	1	1
7:30 AM	0	0	1	4	0	0	3	2	0	16	26	0	0	2	14	3	71	347	1	1	0	2
7:45 AM	0	5	1	2	1	0	1	2	0	21	47	0	0	3	16	4	103	318	0	0	0	0
8:00 AM	0	2	1	4	0	1	2	2	0	12	47	0	0	3	28	2	104	256	0	2	0	1
8:15 AM	0	2	0	6	0	1	0	1	0	7	37	1	0	1	13	0	69		0	3	0	0
8:30 AM	0	0	1	1	0	1	1	2	0	1	19	1	0	2	11	2	42		0	1	0	1
8:45 AM	0	0	2	0	0	0	2	0	0	2	12	1	0	2	18	2	41		2	0	0	0

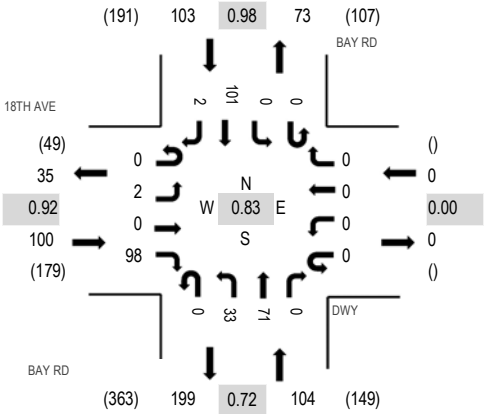
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	9	3	16	1	2	6	6	0	55	156	1	0	8	70	9	342
Mediums	0	0	0	0	0	0	0	1	0	1	1	0	0	1	1	0	5
Total	0	9	3	16	1	2	6	7	0	56	157	1	0	9	71	9	347

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

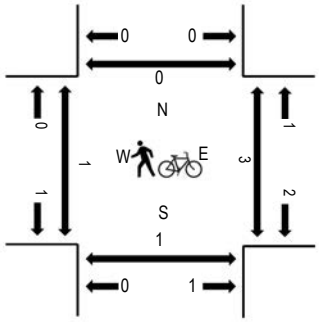
Location: 21 BAY RD & DWY AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	18TH AVE Eastbound				DWY Westbound				BAY RD Northbound				BAY RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	0	0	10	0	0	0	0	0	2	7	0	0	0	13	0	32	226	0	0	0	0
7:15 AM	0	0	0	16	0	0	0	0	0	4	12	0	0	0	22	0	54	286	1	1	0	0
7:30 AM	0	1	0	26	0	0	0	0	0	5	5	0	0	0	26	0	63	305	0	1	0	0
7:45 AM	0	0	0	23	0	0	0	0	0	10	24	0	0	0	20	0	77	307	0	0	0	0
8:00 AM	0	1	0	27	0	0	0	0	0	15	21	0	0	0	27	1	92	293	0	1	0	0
8:15 AM	0	1	0	24	0	0	0	0	0	4	16	0	0	0	27	1	73		0	0	0	0
8:30 AM	0	0	0	24	0	0	0	0	0	4	10	0	0	0	27	0	65		1	2	1	0
8:45 AM	0	1	0	25	0	0	0	0	0	2	8	0	0	0	26	1	63		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	2	0	97	0	0	0	0	0	31	71	0	0	0	100	2	303
Mediums	0	0	0	1	0	0	0	0	0	2	0	0	0	0	1	0	4
Total	0	2	0	98	0	0	0	0	0	33	71	0	0	0	101	2	307

All Traffic Data Services Inc.

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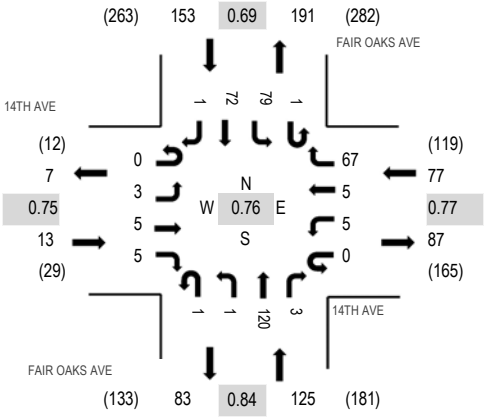
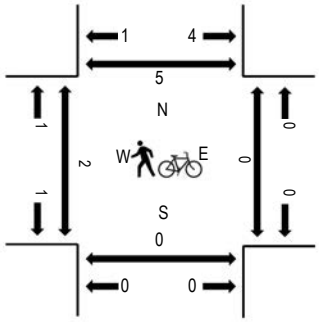
Location: 22 FAIR OAKS AVE & 14TH AVE AM
Date: Wednesday, September 5, 2018
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	14TH AVE Eastbound				14TH AVE Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	2	2	1	0	4	0	7	0	0	14	0	0	9	4	0	43	257	0	0	0	0
7:15 AM	0	1	1	2	0	2	3	10	0	0	14	0	0	18	5	0	56	335	0	1	0	0
7:30 AM	0	1	2	0	0	1	1	7	0	0	15	1	0	21	13	0	62	360	0	1	0	0
7:45 AM	0	1	0	2	0	3	1	21	0	1	35	0	0	14	18	0	96	368	0	0	0	0
8:00 AM	0	1	1	1	0	0	1	22	0	0	37	0	0	24	34	0	121	335	0	0	0	0
8:15 AM	0	0	2	0	0	1	0	13	0	0	33	1	0	21	10	0	81		0	0	0	2
8:30 AM	0	1	2	2	0	1	3	11	1	0	15	2	1	20	10	1	70		2	0	0	3
8:45 AM	0	2	2	0	0	0	1	6	0	0	12	0	0	22	18	0	63		4	0	0	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Lights	0	3	5	5	0	5	5	67	1	1	117	3	1	78	71	1	363
Mediums	0	0	0	0	0	0	0	0	0	0	2	0	0	1	1	0	4
Total	0	3	5	5	0	5	5	67	1	1	120	3	1	79	72	1	368

All Traffic Data Services Inc.

(303) 216-2439
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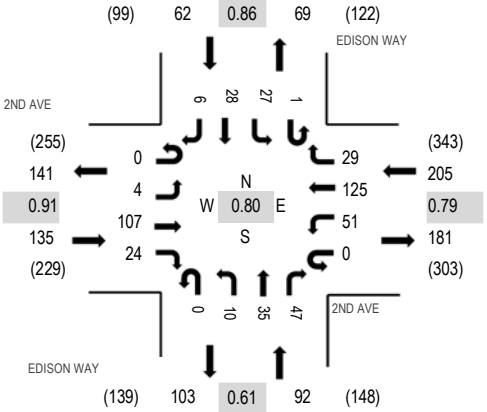
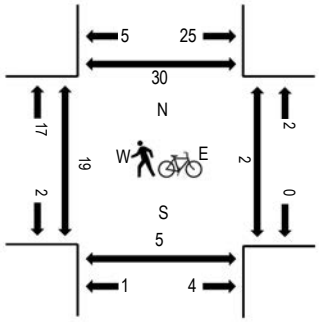
Location: 1 EDISON WAY & 2ND AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	2ND AVE Eastbound				2ND AVE Westbound				EDISON WAY Northbound				EDISON WAY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	1	2	13	0	0	2	22	6	0	2	4	6	0	3	4	1	66	325	2	0	0	4
2:15 PM	0	0	19	4	0	3	19	4	0	3	6	9	0	10	5	2	84	356	0	0	0	0
2:30 PM	1	2	20	3	0	6	29	9	0	2	6	8	0	4	1	0	91	392	1	1	2	1
2:45 PM	0	3	25	1	0	5	27	6	0	3	5	2	0	3	2	2	84	455	0	0	0	0
3:00 PM	0	3	21	6	0	11	25	3	0	2	7	6	0	8	5	0	97	494	4	1	1	6
3:15 PM	0	1	25	6	0	12	30	8	0	3	9	8	0	5	11	2	120		8	0	0	8
3:30 PM	0	0	29	7	0	15	42	8	0	3	13	22	0	7	7	1	154		6	0	4	13
3:45 PM	0	0	32	5	0	13	28	10	0	2	6	11	1	7	5	3	123		1	1	0	3

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	4	103	22	0	51	124	25	0	10	34	44	1	26	28	6	478
Mediums	0	0	4	2	0	0	1	4	0	0	1	3	0	1	0	0	16
Total	0	4	107	24	0	51	125	29	0	10	35	47	1	27	28	6	494

All Traffic Data Services Inc.
(303) 216-2439
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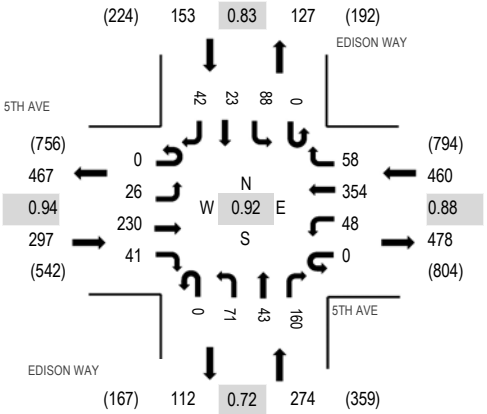
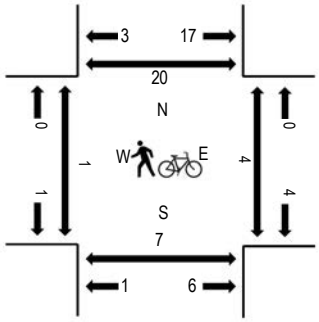
Location: 2 EDISON WAY & 5TH AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	5TH AVE Eastbound				5TH AVE Westbound				EDISON WAY Northbound				EDISON WAY Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	0	51	2	0	6	69	6	0	7	3	6	0	12	4	1	167	735	1	0	0	0
2:15 PM	0	4	52	1	0	6	49	8	0	3	7	12	0	15	1	3	161	832	1	0	4	0
2:30 PM	0	4	48	2	0	6	75	12	0	3	1	7	0	9	2	4	173	976	0	0	1	2
2:45 PM	0	2	75	4	0	15	66	16	0	5	2	29	0	10	6	4	234	1,126	0	0	0	0
3:00 PM	0	1	49	14	0	14	84	15	0	11	10	36	0	14	5	11	264	1,184	0	1	0	3
3:15 PM	0	6	60	14	0	21	78	15	0	20	11	35	0	26	6	13	305		0	0	5	10
3:30 PM	0	11	61	8	0	6	82	14	0	29	14	52	0	27	8	11	323		0	2	1	6
3:45 PM	0	8	60	5	0	7	110	14	0	11	8	37	0	21	4	7	292		1	0	1	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	2
Lights	0	25	221	41	0	47	352	56	0	70	43	156	0	87	22	42	1,162
Mediums	0	1	8	0	0	1	2	2	0	1	0	3	0	1	1	0	20
Total	0	26	230	41	0	48	354	58	0	71	43	160	0	88	23	42	1,184

All Traffic Data Services Inc.

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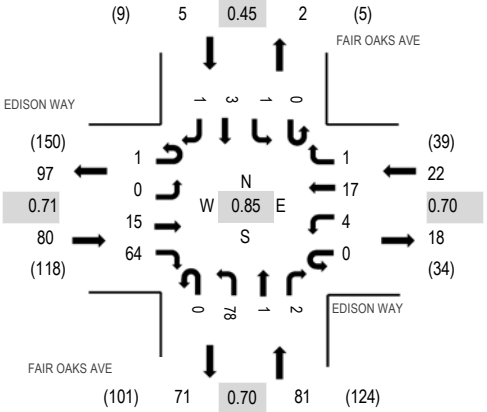
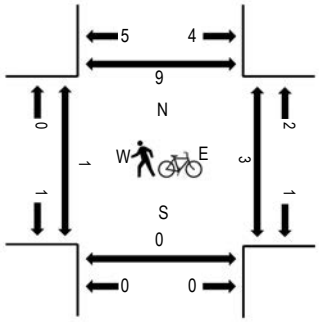
Location: 3 FAIR OAKS AVE & EDISON WAY PM
Date: Wednesday, September 5, 2018
Peak Hour: 02:45 PM - 03:45 PM
Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	EDISON WAY Eastbound				EDISON WAY Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	0	1	7	0	0	2	0	0	5	1	1	0	0	0	1	18	102	4	0	0	0
2:15 PM	0	0	3	3	0	0	2	0	0	13	0	1	0	1	0	0	23	129	0	0	0	4
2:30 PM	0	0	2	8	0	0	2	2	0	9	0	0	0	2	0	0	25	161	0	0	0	0
2:45 PM	0	0	1	13	0	0	2	1	0	13	1	0	0	1	3	1	36	188	0	2	0	1
3:00 PM	0	0	7	11	0	2	8	0	0	17	0	0	0	0	0	0	45	188	0	0	0	1
3:15 PM	0	0	3	17	0	1	5	0	0	29	0	0	0	0	0	0	55		0	1	0	5
3:30 PM	1	0	4	23	0	1	2	0	0	19	0	2	0	0	0	0	52		0	0	0	1
3:45 PM	0	0	4	10	0	2	7	0	0	12	0	1	0	0	0	0	36		0	0	1	1

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2
Lights	1	0	11	63	0	4	14	1	0	77	1	2	0	1	2	0	177
Mediums	0	0	3	1	0	0	2	0	0	1	0	0	0	0	1	1	9
Total	1	0	15	64	0	4	17	1	0	78	1	2	0	1	3	1	188

All Traffic Data Services Inc.
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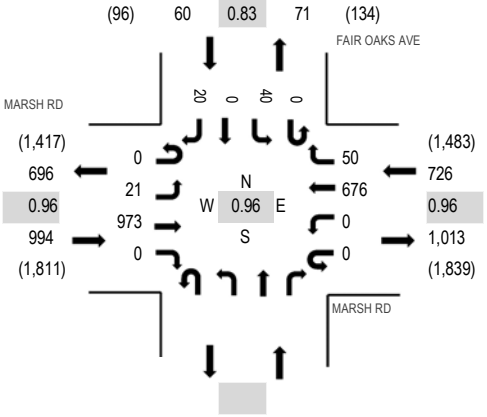
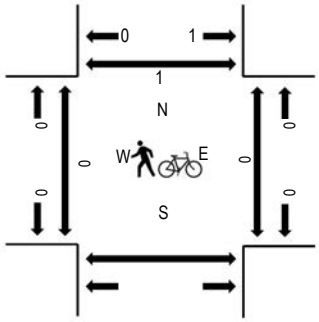
Location: 4 FAIR OAKS AVE & MARSH RD PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				Northbound				FAIR OAKS AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	0	3	194	0	0	0	165	14					0	4	0	8	388	1,610	0	0		0
2:15 PM	0	3	186	0	0	0	184	7					0	6	0	2	388	1,648	0	0		0
2:30 PM	0	7	211	0	0	0	173	15					0	2	0	3	411	1,724	0	0		1
2:45 PM	0	1	212	0	0	0	186	13					0	11	0	0	423	1,749	0	0		0
3:00 PM	0	11	217	0	0	0	175	10					0	10	0	3	426	1,780	0	0		0
3:15 PM	0	5	249	0	0	0	174	18					0	12	0	6	464		0	0		0
3:30 PM	0	4	255	0	0	0	149	11					0	9	0	8	436		0	0		1
3:45 PM	0	1	252	0	0	0	178	11					0	9	0	3	454		0	0		0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	9	0	0	0	1	0					0	0	0	0	10
Lights	0	21	923	0	0	0	658	47					0	38	0	20	1,707
Mediums	0	0	41	0	0	0	17	3					0	2	0	0	63
Total	0	21	973	0	0	0	676	50					0	40	0	20	1,780

All Traffic Data Services Inc.
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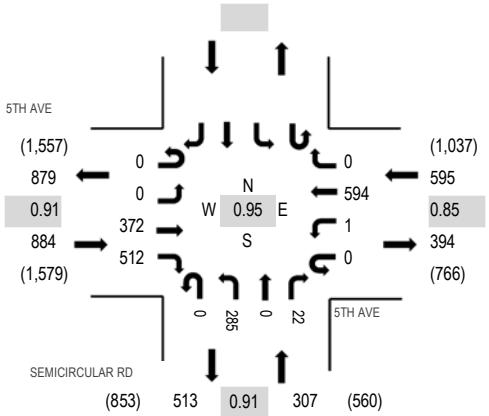
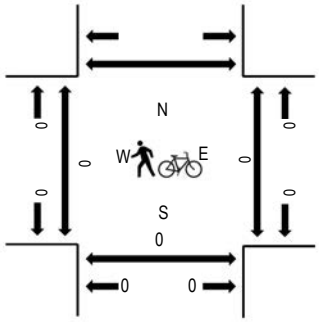
Location: 5 SEMICIRCULAR RD & 5TH AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	5TH AVE Eastbound				5TH AVE Westbound				SEMICIRCULAR RD Northbound				Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	0	0	80	61	0	0	122	0	0	52	0	3					318	1,390	0	0	0	
2:15 PM	0	0	87	65	0	0	112	0	0	63	0	5					332	1,474	0	0	0	
2:30 PM	0	0	89	78	0	0	113	0	0	56	0	5					341	1,597	0	0	0	
2:45 PM	1	0	98	136	0	0	95	0	0	64	0	5					399	1,724	0	0	0	
3:00 PM	0	0	92	102	0	0	137	0	0	63	0	8					402	1,786	0	0	0	
3:15 PM	0	0	97	153	0	0	125	0	0	76	0	4					455		0	0	0	
3:30 PM	0	0	96	130	0	0	158	0	0	80	0	4					468		0	0	0	
3:45 PM	0	0	87	127	0	1	174	0	0	66	0	6					461		0	0	0	

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	3	1	0	0	0	0	0	0	0	0					4
Lights	0	0	359	502	0	1	587	0	0	281	0	22					1,752
Mediums	0	0	10	9	0	0	7	0	0	4	0	0					30
Total	0	0	372	512	0	1	594	0	0	285	0	22					1,786

All Traffic Data Services Inc.
(303) 216-2439
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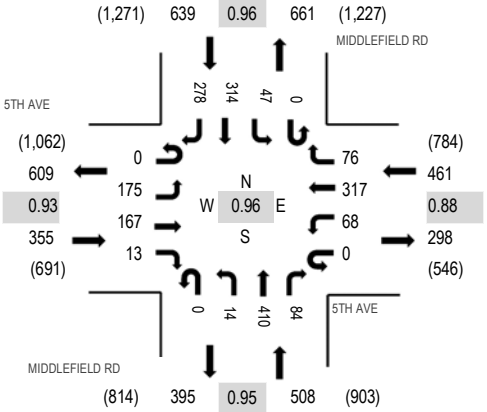
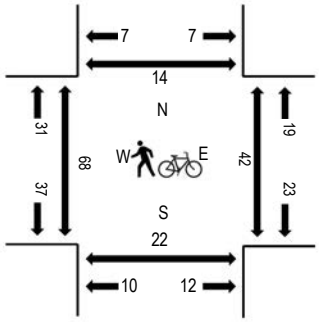
Location: 6 MIDDLEFIELD RD & 5TH AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	5TH AVE Eastbound				5TH AVE Westbound				MIDDLEFIELD RD Northbound				MIDDLEFIELD RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	38	32	5	0	18	47	10	0	3	79	9	0	13	75	67	396	1,686	6	7	1	0
2:15 PM	0	39	41	2	0	8	46	18	0	3	76	12	0	9	87	70	411	1,774	7	6	3	1
2:30 PM	0	45	33	4	0	10	63	20	0	2	73	11	0	11	104	49	425	1,828	2	9	0	0
2:45 PM	0	47	47	3	0	14	52	17	0	0	104	23	0	7	89	51	454	1,905	9	3	2	1
3:00 PM	0	46	49	3	0	15	71	18	0	4	92	23	0	13	85	65	484	1,963	17	8	2	2
3:15 PM	0	43	39	2	0	17	57	30	0	3	96	26	0	10	78	64	465		17	19	6	4
3:30 PM	0	38	43	3	0	21	87	14	0	5	112	16	0	13	76	74	502		18	9	8	3
3:45 PM	0	48	36	5	0	15	102	14	0	2	110	19	0	11	75	75	512		16	6	5	5

Peak Rolling Hour Flow Rates

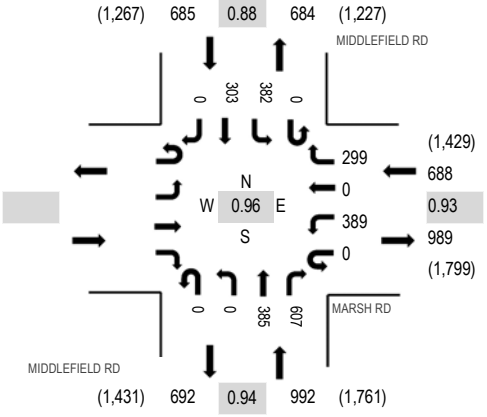
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
Lights	0	166	161	13	0	68	312	75	0	14	398	80	0	47	307	275	1,916
Mediums	0	8	6	0	0	0	5	1	0	0	11	4	0	0	7	3	45
Total	0	175	167	13	0	68	317	76	0	14	410	84	0	47	314	278	1,963

All Traffic Data Services Inc.

(303) 216-2439
www.alltrafficdata.net

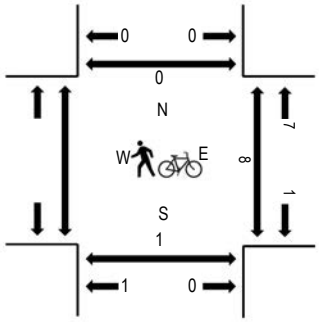
Location: 7 MIDDLEFIELD RD & MARSH RD PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				MIDDLEFIELD RD Northbound				MIDDLEFIELD RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM					0	110	0	67	0	0	62	128	0	71	59	0	497	2,092	0	0	0	0
2:15 PM					0	119	0	81	0	0	60	110	0	78	74	0	522	2,139	1	0	0	0
2:30 PM					0	110	0	65	0	0	67	142	0	74	66	0	524	2,233	1	0	0	0
2:45 PM					0	121	0	68	0	0	73	127	0	80	80	0	549	2,299	0	0	0	0
3:00 PM					0	103	0	75	0	0	75	136	0	100	55	0	544	2,365	1	0	0	0
3:15 PM					0	88	0	78	0	0	105	151	0	99	95	0	616		0	0	0	0
3:30 PM					0	96	0	69	0	0	98	167	0	79	81	0	590		3	0	0	0
3:45 PM					0	102	0	77	0	0	107	153	0	104	72	0	615		1	0	0	0

Peak Rolling Hour Flow Rates

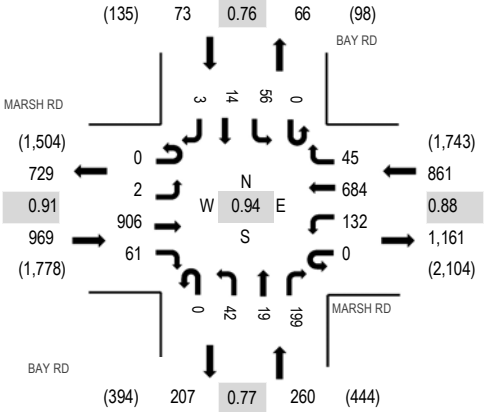
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks					0	1	0	1	0	0	1	1	0	7	0	0	11
Lights					0	375	0	290	0	0	375	591	0	361	294	0	2,286
Mediums					0	13	0	8	0	0	9	15	0	14	9	0	68
Total					0	389	0	299	0	0	385	607	0	382	303	0	2,365

All Traffic Data Services Inc.

(303) 216-2439
www.alltrafficdata.net

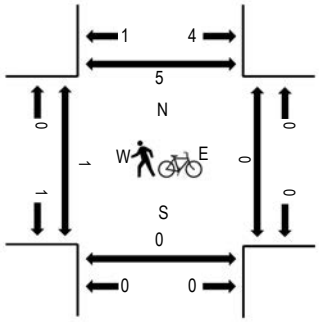
Location: 8 BAY RD & MARSH RD PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				BAY RD Northbound				BAY RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	1	177	7	0	30	156	5	0	16	0	39	0	13	2	3	449	1,937	0	1	0	0
2:15 PM	0	0	184	12	0	30	200	12	0	9	0	32	0	10	1	1	491	1,965	0	0	0	0
2:30 PM	0	0	184	11	0	31	156	5	0	16	0	27	0	12	2	1	445	2,029	0	1	0	0
2:45 PM	0	0	224	9	0	45	207	5	0	10	4	31	0	10	7	0	552	2,138	0	0	0	2
3:00 PM	0	0	193	18	0	35	163	6	0	8	4	34	0	15	1	0	477	2,163	0	0	0	0
3:15 PM	0	0	214	20	0	33	188	20	0	12	3	51	0	9	4	1	555		0	0	0	0
3:30 PM	0	1	258	7	0	25	163	12	0	9	6	49	0	17	5	2	554		0	0	0	2
3:45 PM	0	1	241	16	0	39	170	7	0	13	6	65	0	15	4	0	577		0	0	0	0

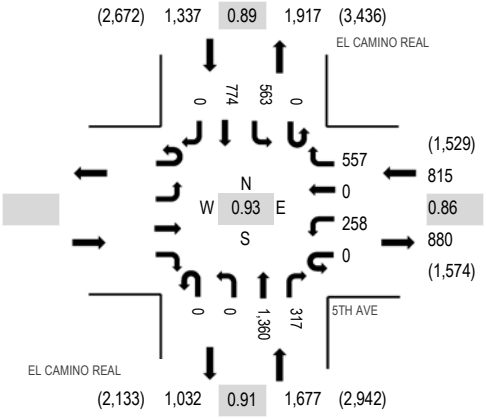
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	6	0	0	0	1	0	0	0	0	0	0	0	0	0	7
Lights	0	2	865	61	0	128	662	43	0	42	19	187	0	55	14	2	2,080
Mediums	0	0	35	0	0	4	21	2	0	0	0	12	0	1	0	1	76
Total	0	2	906	61	0	132	684	45	0	42	19	199	0	56	14	3	2,163

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

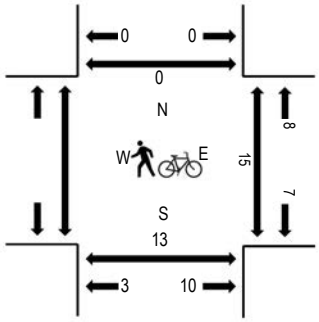
Location: 9 EL CAMINO REAL & 5TH AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	Eastbound				5TH AVE Westbound				EL CAMINO REAL Northbound				EL CAMINO REAL Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM					0	71	0	107	0	0	244	29	1	106	229	0	787	3,314		3	3	0
2:15 PM					0	71	0	128	0	0	251	57	0	92	205	0	804	3,413		3	4	0
2:30 PM					0	47	0	115	0	0	284	60	2	112	214	0	834	3,555		0	1	0
2:45 PM					0	60	0	115	0	0	272	68	0	170	204	0	889	3,691		7	1	0
3:00 PM					0	56	0	138	0	0	319	76	0	105	192	0	886	3,829		0	1	0
3:15 PM					0	56	0	101	0	0	323	76	0	184	206	0	946			0	4	0
3:30 PM					0	68	0	158	0	0	350	71	0	128	195	0	970			2	2	0
3:45 PM					0	78	0	160	0	0	368	94	0	146	181	0	1,027			9	6	0

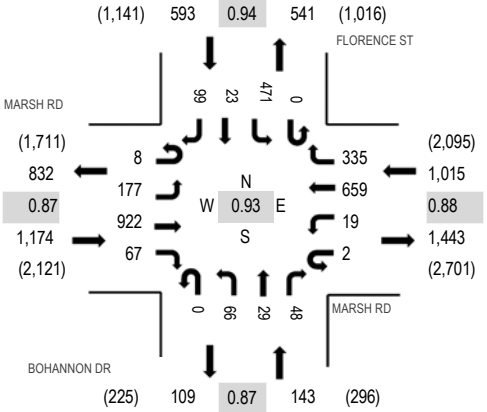
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks					0	0	0	0	0	0	9	0	0	0	2	0	11
Lights					0	253	0	542	0	0	1,315	303	0	552	758	0	3,723
Mediums					0	5	0	15	0	0	36	14	0	11	14	0	95
Total					0	258	0	557	0	0	1,360	317	0	563	774	0	3,829

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

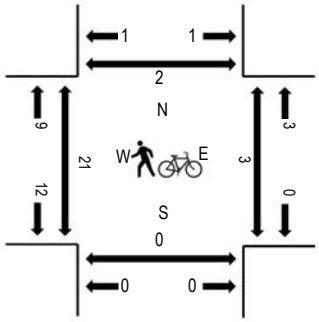
Location: 10 BOHANNON DR & MARSH RD PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				BOHANNON DR Northbound				FLORENCE ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	36	200	13	0	6	166	81	0	18	6	20	0	103	6	17	672	2,728	3	0	0	0
2:15 PM	1	26	179	8	1	9	188	77	0	16	9	13	0	74	12	25	638	2,720	2	0	1	0
2:30 PM	1	23	178	15	0	10	156	78	0	22	11	11	0	137	8	25	675	2,848	0	1	0	0
2:45 PM	1	29	221	16	2	6	208	92	0	9	7	11	0	108	7	26	743	2,878	8	0	0	2
3:00 PM	1	44	188	6	1	6	154	77	0	20	7	14	0	113	9	24	664	2,925	9	1	0	1
3:15 PM	4	42	241	11	0	8	188	99	0	14	6	18	0	106	6	23	766		7	0	0	0
3:30 PM	3	39	235	22	0	1	142	73	0	17	6	9	0	127	6	25	705		2	0	0	0
3:45 PM	0	52	258	28	1	4	175	86	0	15	10	7	0	125	2	27	790		3	0	0	0

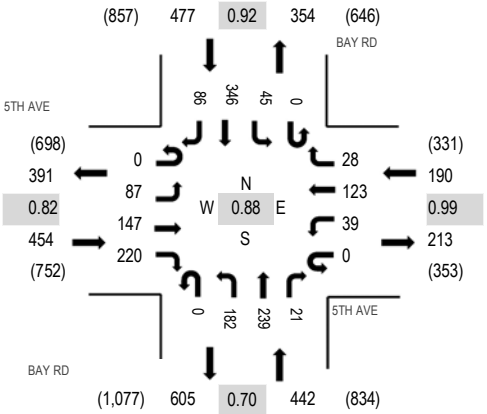
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	8	0	0	1	1	0	0	0	0	1	0	0	1	0	13
Lights	8	172	880	65	2	18	642	323	0	64	29	46	0	453	21	96	2,819
Mediums	0	4	34	2	0	0	16	12	0	2	0	1	0	18	1	3	93
Total	8	177	922	67	2	19	659	335	0	66	29	48	0	471	23	99	2,925

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

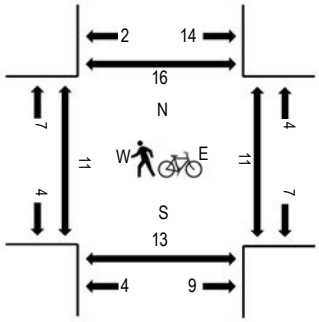
Location: 11 BAY RD & 5TH AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	5TH AVE Eastbound				5TH AVE Westbound				BAY RD Northbound				BAY RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	11	12	40	0	6	27	3	0	33	53	5	0	4	56	16	266	1,211	25	3	24	3
2:15 PM	0	17	11	38	0	8	14	2	0	29	45	9	0	3	62	11	249	1,293	0	2	1	0
2:30 PM	0	13	24	42	0	7	24	8	0	48	66	8	0	11	91	20	362	1,403	0	2	0	0
2:45 PM	0	13	37	40	0	8	27	7	0	36	54	6	0	10	74	22	334	1,452	0	3	1	1
3:00 PM	0	16	43	50	0	12	30	6	0	31	46	3	0	9	85	17	348	1,563	0	3	0	0
3:15 PM	0	25	23	49	0	10	33	3	0	42	61	3	0	10	81	19	359		1	2	2	4
3:30 PM	0	24	40	74	0	7	32	9	0	42	47	9	0	15	93	19	411		3	3	5	6
3:45 PM	0	22	41	47	0	10	28	10	0	67	85	6	0	11	87	31	445		6	3	5	5

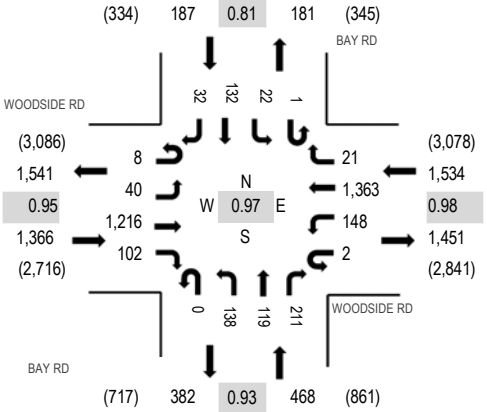
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	1	0	0	0	0	0	1	3	0	0	0	1	0	7
Lights	0	86	138	215	0	39	122	28	0	179	227	19	0	41	333	85	1,512
Mediums	0	1	8	4	0	0	1	0	0	2	9	2	0	4	12	1	44
Total	0	87	147	220	0	39	123	28	0	182	239	21	0	45	346	86	1,563

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

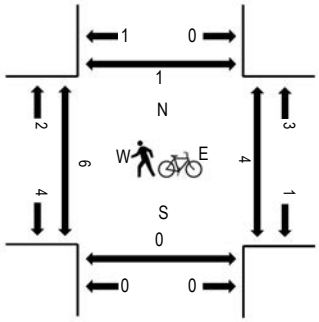
Location: 12 BAY RD & WOODSIDE RD PM
Date: Wednesday, September 5, 2018
Peak Hour: 02:45 PM - 03:45 PM
Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	WOODSIDE RD Eastbound				WOODSIDE RD Westbound				BAY RD Northbound				BAY RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	2	14	312	19	0	43	352	1	0	23	23	36	0	5	18	6	854	3,439	0	0	0	0
2:15 PM	2	7	323	28	1	37	352	5	0	37	21	29	0	7	22	4	875	3,428	2	0	0	0
2:30 PM	0	10	287	15	4	35	319	8	0	39	24	45	0	2	29	6	823	3,471	3	1	0	0
2:45 PM	4	10	327	23	0	21	363	7	0	26	29	44	0	9	18	6	887	3,555	0	0	0	0
3:00 PM	1	9	251	25	0	48	323	2	0	37	28	66	0	7	33	13	843	3,550	1	0	0	1
3:15 PM	2	7	322	27	0	41	347	7	0	36	42	48	1	3	29	6	918		1	4	0	0
3:30 PM	1	14	316	27	2	38	330	5	0	39	20	53	0	3	52	7	907		0	0	0	0
3:45 PM	3	7	290	31	0	22	361	4	0	33	40	43	0	6	36	6	882		3	0	0	1

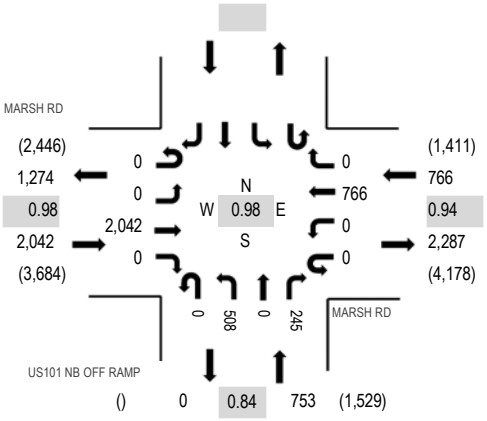
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	8	0	0	3	8	0	0	0	1	1	0	0	0	0	22
Lights	8	39	1,155	101	2	140	1,340	20	0	134	117	196	1	21	129	32	3,435
Mediums	0	0	53	1	0	5	15	1	0	4	1	14	0	1	3	0	98
Total	8	40	1,216	102	2	148	1,363	21	0	138	119	211	1	22	132	32	3,555

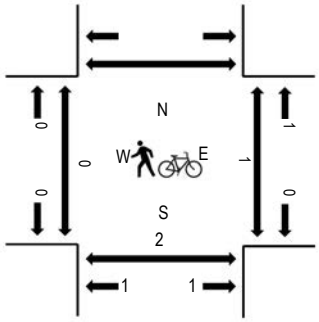
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

Location: 14 US101 NB OFF RAMP & MARSH RD PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				US101 NB OFF RAMP Northbound				Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
2:00 PM	0	0	338	0	0	0	167	0	0	118	0	53					676	3,063	0	0	0	
2:15 PM	0	0	405	0	0	0	146	0	0	120	0	58					729	3,273	0	0	0	
2:30 PM	0	0	455	0	0	0	172	0	0	121	0	64					812	3,450	0	0	0	
2:45 PM	0	0	444	0	0	0	160	0	0	168	0	74					846	3,529	0	0	0	
3:00 PM	0	0	497	0	0	0	203	0	0	127	0	59					886	3,561	0	0	1	
3:15 PM	0	0	523	0	0	0	179	0	0	142	0	62					906		0	0	0	
3:30 PM	0	0	514	0	0	0	202	0	0	108	0	67					891		0	0	0	
3:45 PM	0	0	508	0	0	0	182	0	0	131	0	57					878		0	0	1	

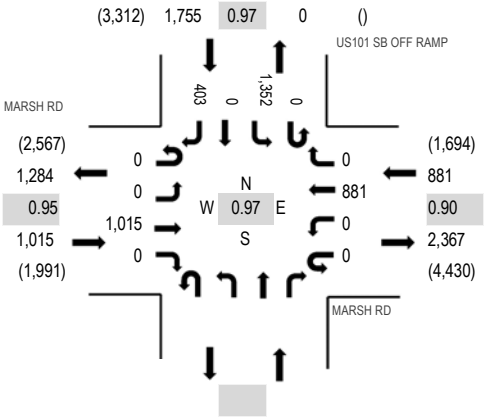
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	16	0	0	0	1	0	0	2	0	8					27
Lights	0	0	1,930	0	0	0	734	0	0	489	0	223					3,376
Mediums	0	0	96	0	0	0	31	0	0	17	0	14					158
Total	0	0	2,042	0	0	0	766	0	0	508	0	245					3,561

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

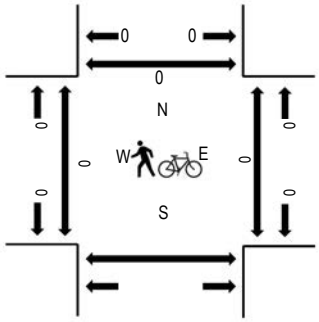
Location: 15 US101 SB OFF RAMP & MARSH RD PM
Date: Wednesday, September 5, 2018
Peak Hour: 02:45 PM - 03:45 PM
Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	MARSH RD Eastbound				MARSH RD Westbound				Northbound				US101 SB OFF RAMP Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	0	248	0	0	0	206	0					0	204	0	122	780	3,364	0	0		0
2:15 PM	0	0	210	0	1	0	189	0					0	272	0	147	819	3,488	0	0		0
2:30 PM	0	0	241	0	0	0	190	0					0	298	0	108	837	3,609	0	0		0
2:45 PM	0	0	235	0	0	0	245	0					0	329	0	119	928	3,651	0	0		0
3:00 PM	0	0	252	0	0	0	199	0					0	342	0	111	904	3,633	0	0		0
3:15 PM	0	0	257	0	0	0	240	0					0	353	0	90	940		0	0		0
3:30 PM	0	0	271	0	0	0	197	0					0	328	0	83	879		0	0		0
3:45 PM	0	0	277	0	0	0	227	0					0	312	0	94	910		0	0		0

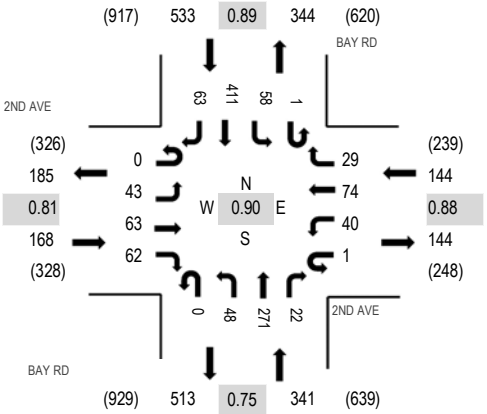
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	1	0	0	0	2	0					0	20	0	5	28
Lights	0	0	973	0	0	0	851	0					0	1,265	0	387	3,476
Mediums	0	0	41	0	0	0	28	0					0	67	0	11	147
Total	0	0	1,015	0	0	0	881	0					0	1,352	0	403	3,651

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

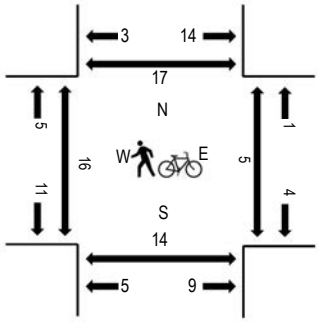
Location: 16 BAY RD & 2ND AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	2ND AVE Eastbound				2ND AVE Westbound				BAY RD Northbound				BAY RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	9	5	13	0	5	12	3	0	19	49	6	1	4	66	7	199	937	4	1	1	1
2:15 PM	0	12	20	13	0	8	6	7	0	8	47	7	0	4	65	15	212	1,006	0	3	24	0
2:30 PM	0	8	11	34	0	7	12	6	0	15	67	7	0	11	87	11	276	1,055	0	3	2	0
2:45 PM	0	7	12	16	0	13	12	4	0	12	54	7	2	10	89	12	250	1,107	0	1	0	4
3:00 PM	0	11	12	16	0	11	17	4	0	12	56	5	0	13	95	16	268	1,186	2	0	2	0
3:15 PM	0	8	9	7	0	8	20	3	0	9	64	4	1	11	104	13	261		4	0	1	1
3:30 PM	0	16	23	22	1	9	19	12	0	10	59	8	0	18	114	17	328		6	0	5	5
3:45 PM	0	8	19	17	0	12	18	10	0	17	92	5	0	16	98	17	329		4	5	6	11

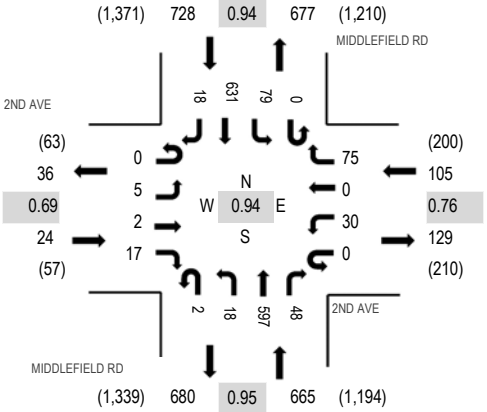
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
Lights	0	42	61	54	1	39	73	29	0	44	260	22	0	54	404	60	1,143
Mediums	0	0	2	8	0	1	1	0	0	4	10	0	1	4	7	3	41
Total	0	43	63	62	1	40	74	29	0	48	271	22	1	58	411	63	1,186

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

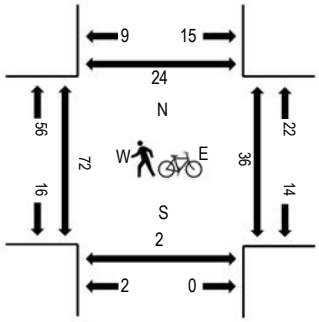
Location: 17 MIDDLEFIELD RD & 2ND AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	2ND AVE Eastbound				2ND AVE Westbound				MIDDLEFIELD RD Northbound				MIDDLEFIELD RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	2	0	10	0	7	0	13	1	1	108	6	0	9	145	4	306	1,300	5	1	0	2
2:15 PM	0	2	1	7	0	15	0	7	0	3	111	12	0	9	148	1	316	1,355	8	7	0	2
2:30 PM	0	0	0	5	0	8	1	17	0	7	120	10	1	11	153	3	336	1,406	6	2	0	1
2:45 PM	0	1	1	4	0	12	0	15	1	7	136	6	0	16	143	0	342	1,474	5	2	0	0
3:00 PM	0	0	1	5	0	8	0	9	0	5	135	9	0	19	166	4	361	1,522	12	5	1	4
3:15 PM	0	4	0	7	0	11	0	17	1	4	154	11	0	16	139	3	367		15	12	1	7
3:30 PM	0	1	1	4	0	8	0	27	0	3	152	20	0	22	161	5	404		34	10	0	9
3:45 PM	0	0	0	1	0	3	0	22	1	6	156	8	0	22	165	6	390		10	6	0	3

Peak Rolling Hour Flow Rates

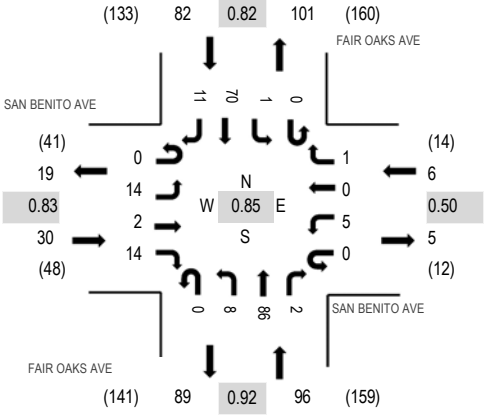
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
Lights	0	5	2	16	0	30	0	75	2	18	582	45	0	77	622	17	1,491
Mediums	0	0	0	1	0	0	0	0	0	0	13	3	0	2	9	1	29
Total	0	5	2	17	0	30	0	75	2	18	597	48	0	79	631	18	1,522

All Traffic Data Services Inc.

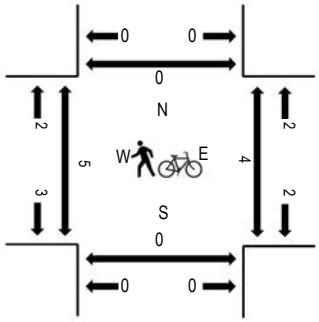
(303) 216-2439
www.alltrafficdata.net

Location: 18 FAIR OAKS AVE & SAN BENITO AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	SAN BENITO AVE Eastbound				SAN BENITO AVE Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	0	1	1	0	3	1	0	0	4	6	1	2	1	11	2	33	140	3	1	0	1
2:15 PM	1	0	0	4	0	0	2	0	0	2	20	0	0	0	7	0	36	159	1	0	0	0
2:30 PM	0	3	1	0	0	0	0	0	0	3	9	1	0	0	11	1	29	179	3	0	0	0
2:45 PM	0	2	1	4	0	0	1	1	0	1	16	0	0	1	11	4	42	213	0	0	0	0
3:00 PM	0	4	0	5	0	0	0	0	0	1	21	1	0	0	16	4	52	214	3	1	0	0
3:15 PM	0	4	2	1	0	2	0	1	0	1	24	0	0	0	18	3	56		1	0	0	0
3:30 PM	0	6	0	4	0	2	0	0	0	5	20	1	0	1	23	1	63		0	1	0	0
3:45 PM	0	0	0	4	0	1	0	0	0	1	21	0	0	0	13	3	43		1	0	0	0

Peak Rolling Hour Flow Rates

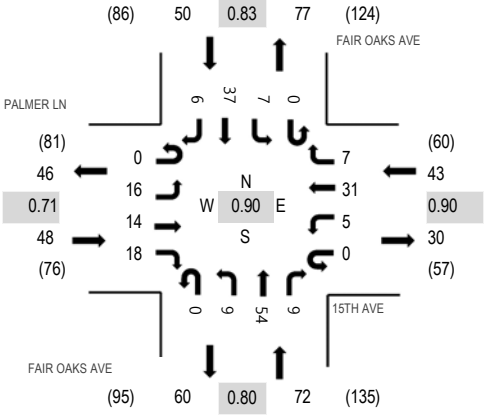
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	14	0	14	0	3	0	1	0	7	85	2	0	1	69	11	207
Mediums	0	0	2	0	0	2	0	0	0	1	1	0	0	0	1	0	7
Total	0	14	2	14	0	5	0	1	0	8	86	2	0	1	70	11	214

All Traffic Data Services Inc.

(303) 216-2439
www.alltrafficdata.net

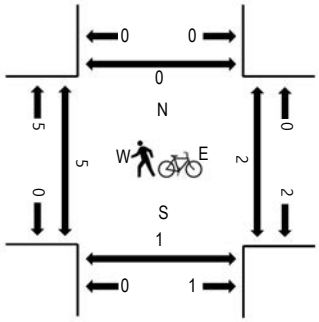
Location: 19 FAIR OAKS AVE & 15TH AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 02:45 PM - 03:45 PM
Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	PALMER LN Eastbound				15TH AVE Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	0	3	1	0	0	3	1	0	7	10	1	0	2	8	0	36	151	0	0	0	0
2:15 PM	0	1	8	3	0	1	1	0	0	4	9	1	0	1	6	3	38	173	0	1	0	0
2:30 PM	0	1	2	1	0	0	7	0	0	4	10	0	0	3	5	0	33	194	1	1	1	0
2:45 PM	0	4	2	3	0	3	8	1	0	4	10	1	0	0	6	2	44	213	0	0	0	0
3:00 PM	0	4	4	7	0	1	10	1	0	1	15	2	0	1	11	1	58	206	2	0	0	0
3:15 PM	0	6	5	6	0	1	9	2	0	1	11	4	0	2	11	1	59		0	0	0	0
3:30 PM	0	2	3	2	0	0	4	3	0	3	18	2	0	4	9	2	52		3	2	1	0
3:45 PM	0	1	3	4	0	1	2	1	0	4	13	0	0	3	5	0	37		0	0	0	0

Peak Rolling Hour Flow Rates

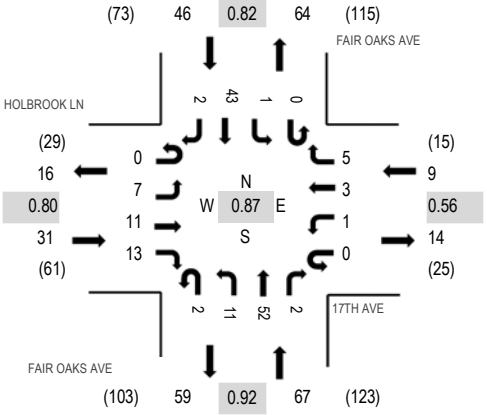
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	16	14	18	0	5	31	7	0	9	50	9	0	7	37	6	209
Mediums	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4
Total	0	16	14	18	0	5	31	7	0	9	54	9	0	7	37	6	213

All Traffic Data Services Inc.

(303) 216-2439
www.alltrafficdata.net

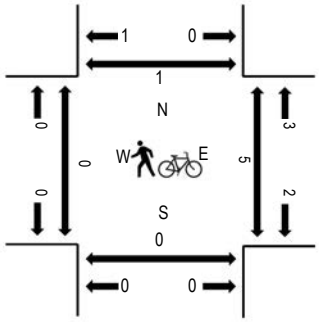
Location: 20 FAIR OAKS AVE & 17TH AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 02:45 PM - 03:45 PM
Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	HOLBROOK LN Eastbound				17TH AVE Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	1	1	2	0	1	0	1	0	6	10	0	0	0	10	0	32	121	0	0	0	0
2:15 PM	0	2	1	3	0	0	0	1	0	1	8	0	0	0	7	0	23	125	0	0	0	0
2:30 PM	0	0	3	6	0	0	2	1	0	1	17	1	0	0	3	0	34	146	0	0	0	0
2:45 PM	0	0	2	5	0	0	1	0	0	5	9	2	0	0	8	0	32	153	0	0	0	0
3:00 PM	0	2	2	2	0	0	1	1	0	1	15	0	0	0	11	1	36	151	0	3	0	1
3:15 PM	0	4	4	3	0	1	0	1	1	4	14	0	0	0	11	1	44		0	1	0	0
3:30 PM	0	1	3	3	0	0	1	3	1	1	14	0	0	1	13	0	41		0	1	0	0
3:45 PM	0	1	5	5	0	0	0	0	1	2	9	0	0	0	6	1	30		1	2	0	0

Peak Rolling Hour Flow Rates

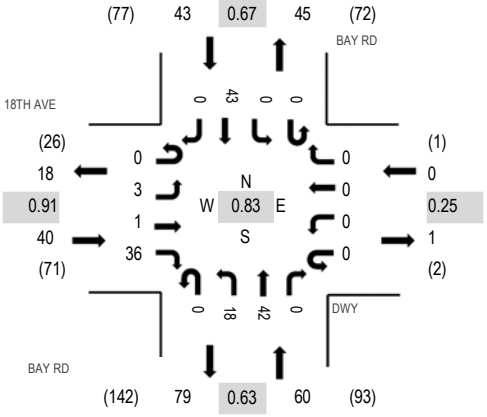
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	3
Lights	0	7	10	11	0	1	3	5	2	11	48	2	0	1	42	1	144
Mediums	0	0	1	2	0	0	0	0	0	0	2	0	0	0	1	0	6
Total	0	7	11	13	0	1	3	5	2	11	52	2	0	1	43	2	153

All Traffic Data Services Inc.

(303) 216-2439
www.alltrafficdata.net

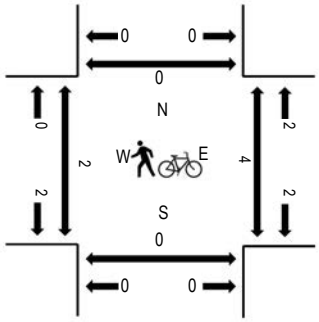
Location: 21 BAY RD & DWY PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	18TH AVE Eastbound				DWY Westbound				BAY RD Northbound				BAY RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	1	1	6	0	1	0	0	0	1	6	0	0	0	12	0	28	99	0	1	0	1
2:15 PM	0	0	0	5	0	0	0	0	0	2	9	0	0	0	6	0	22	97	0	1	0	0
2:30 PM	0	0	0	10	0	0	0	0	1	2	3	0	0	0	6	0	22	114	0	0	0	0
2:45 PM	0	1	0	7	0	0	0	0	0	2	7	0	0	0	9	1	27	135	0	0	0	2
3:00 PM	0	2	0	8	0	0	0	0	0	3	6	0	0	0	7	0	26	143	0	0	0	0
3:15 PM	0	0	0	11	0	0	0	0	0	5	19	0	0	0	4	0	39		2	1	0	0
3:30 PM	0	1	1	9	0	0	0	0	0	5	11	0	0	0	16	0	43		0	2	0	0
3:45 PM	0	0	0	8	0	0	0	0	0	5	6	0	0	0	16	0	35		0	1	0	0

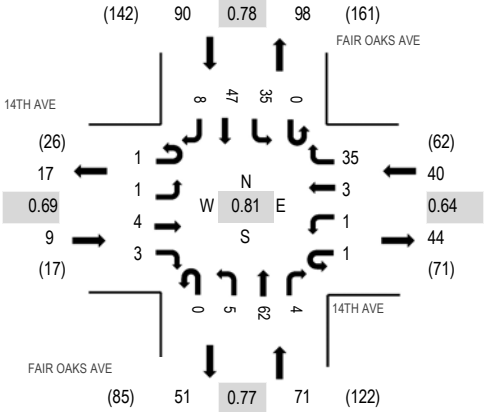
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	1	1	36	0	0	0	0	0	17	42	0	0	0	42	0	139
Mediums	0	2	0	0	0	0	0	0	0	1	0	0	0	0	1	0	4
Total	0	3	1	36	0	0	0	0	0	18	42	0	0	0	43	0	143

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

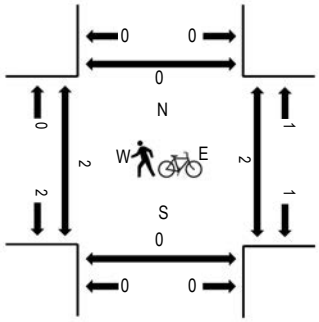
Location: 22 FAIR OAKS AVE & 14TH AVE PM
Date: Wednesday, September 5, 2018
Peak Hour: 03:00 PM - 04:00 PM
Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	14TH AVE Eastbound				14TH AVE Westbound				FAIR OAKS AVE Northbound				FAIR OAKS AVE Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
2:00 PM	0	0	1	0	0	0	0	4	0	2	10	1	0	6	9	0	33	133	1	2	0	2
2:15 PM	0	0	0	0	0	0	0	9	0	0	9	1	0	3	6	1	29	153	2	0	0	2
2:30 PM	0	0	0	4	0	0	0	2	0	0	12	2	0	6	5	1	32	175	0	1	0	0
2:45 PM	0	1	1	1	0	0	1	6	0	3	10	1	0	5	9	1	39	208	0	0	0	0
3:00 PM	0	0	0	2	1	1	0	4	0	1	20	2	0	8	13	1	53	210	1	1	0	0
3:15 PM	0	0	2	0	0	0	1	15	0	0	12	0	0	6	13	2	51		0	0	0	0
3:30 PM	1	1	0	1	0	0	1	11	0	3	17	1	0	13	13	3	65		0	0	0	0
3:45 PM	0	0	2	0	0	0	1	5	0	1	13	1	0	8	8	2	41		1	1	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	1	1	3	2	1	1	3	35	0	5	59	4	0	35	47	7	204
Mediums	0	0	1	1	0	0	0	0	0	0	3	0	0	0	0	1	6
Total	1	1	4	3	1	1	3	35	0	5	62	4	0	35	47	8	210

AM Peak-Hour Volume Count Worksheet

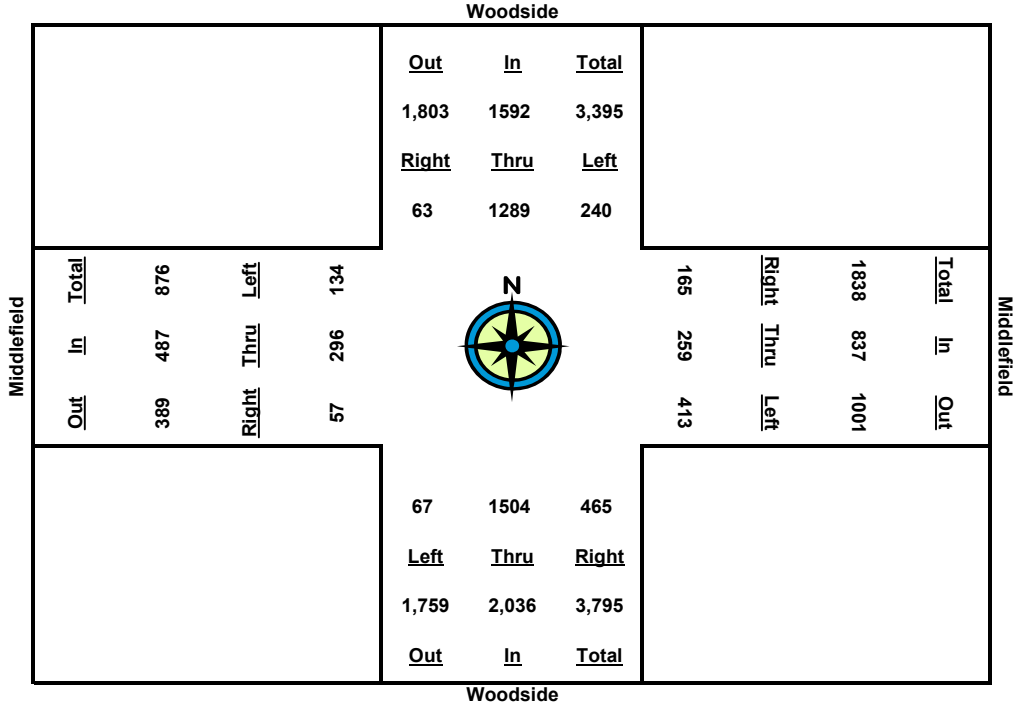
Date: 9/26/18
Counter: Patti and Kilbee/Jo
Intersection Name: Woodside and Middlefield
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	Woodside				Middlefield				Woodside				Middlefield			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	19	242	51	312	44	54	94	192	67	303	7	377	10	50	23	83
7:30	37	500	96	633	91	107	201	399	151	623	23	797	24	105	54	183
7:45	53	844	154	1,051	130	168	301	599	285	1,014	40	1,339	43	173	88	304
8:00	66	1,172	210	1,448	160	235	404	799	387	1,354	50	1,791	59	247	120	426
8:15	83	1,481	275	1,839	206	298	511	1,015	488	1,711	66	2,265	75	309	160	544
8:30	100	1,789	336	2,225	256	366	614	1,236	616	2,127	90	2,833	81	401	188	670
8:45	115	2,081	402	2,598	313	438	685	1,436	705	2,452	103	3,260	84	477	225	786
9:00	130	2,347	449	2,926	361	486	745	1,592	791	2,752	124	3,667	88	536	254	878

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
7:00 - 8:00	66	1,172	210	1,448	160	235	404	799	387	1,354	50	1,791	59	247	120	426	4,464
7:15 - 8:15	64	1,239	224	1,527	162	244	417	823	421	1,408	59	1,888	65	259	137	461	4,699
7:30 - 8:30	63	1,289	240	1,592	165	259	413	837	465	1,504	67	2,036	57	296	134	487	4,952
7:45 - 8:45	62	1,237	248	1,547	183	270	384	837	420	1,438	63	1,921	41	304	137	482	4,787
8:00 - 9:00	64	1,175	239	1,478	201	251	341	793	404	1,398	74	1,876	29	289	134	452	4,599
Peak Volumes:	**63**	**1,289**	**240**	**1,592**	**165**	**259**	**413**	**837**	**465**	**1,504**	**67**	**2,036**	**57**	**296**	**134**	**487**	**4,952**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	67	1,504	465	240	1,289	63	134	296	57	413	259	165



PM Peak-Hour Volume Count Worksheet

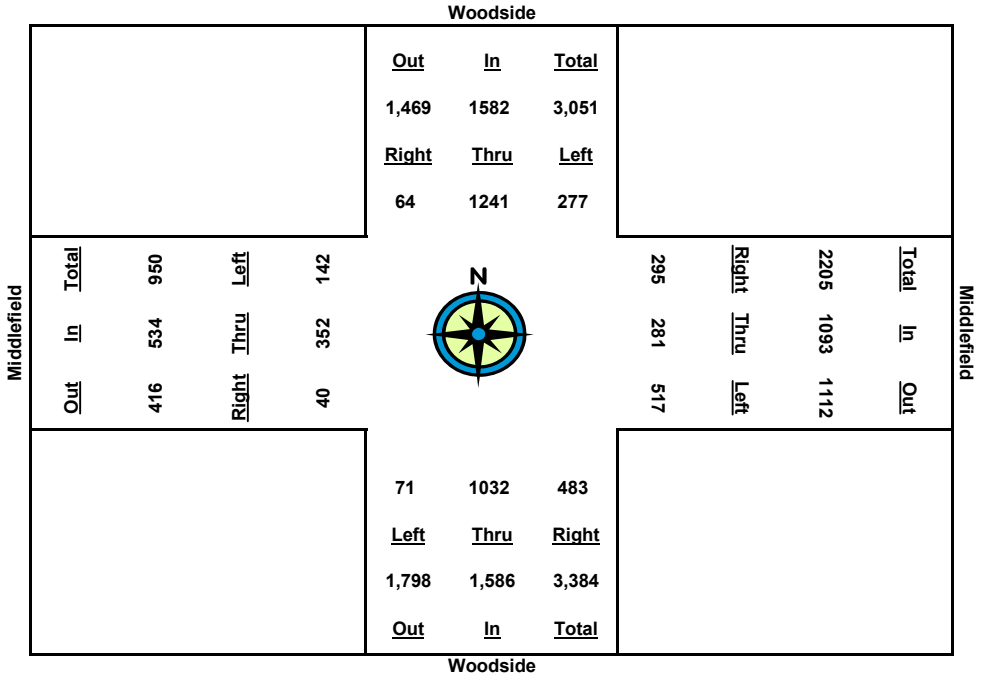
Date: 9/26/18
Counter: Patti and Kilbee/Jo
Intersection Name: Woodside and Middlefield
Weather: Clear

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	Woodside				Middlefield				Woodside				Middlefield			
	North Approach				East Approach				South Approach				West Approach			
Start Time	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15	11	231	65	307	85	62	101	248	84	268	18	370	16	96	36	148
2:30	25	530	153	708	160	119	188	467	190	494	46	730	29	164	68	261
2:45	39	789	231	1,059	260	207	308	775	301	735	73	1,109	39	242	101	382
3:00	58	1,100	317	1,475	343	262	424	1,029	429	969	89	1,487	50	330	141	521
3:15	77	1,462	380	1,919	416	338	578	1,332	545	1,237	106	1,888	62	428	176	666
3:30	91	1,681	453	2,225	482	408	688	1,578	664	1,502	128	2,294	70	499	211	780
3:45	103	2,030	508	2,641	555	488	825	1,868	784	1,767	144	2,695	79	594	243	916
4:00	113	2,285	563	2,961	620	566	941	2,127	931	2,033	178	3,142	89	680	270	1,039

Peak Hour	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	Right	Thru	Left	Total	PK Hour
2:00 - 3:00	58	1,100	317	1,475	343	262	424	1,029	429	969	89	1,487	50	330	141	521	4,512
2:15 - 3:15	66	1,231	315	1,612	331	276	477	1,084	461	969	88	1,518	46	332	140	518	4,732
2:30 - 3:30	66	1,151	300	1,517	322	289	500	1,111	474	1,008	82	1,564	41	335	143	519	4,711
2:45 - 3:45	64	1,241	277	1,582	295	281	517	1,093	483	1,032	71	1,586	40	352	142	534	4,795
3:00 - 4:00	55	1,185	246	1,486	277	304	517	1,098	502	1,064	89	1,655	39	350	129	518	4,757
Peak Volumes:	**64**	**1,241**	**277**	**1,582**	**295**	**281**	**517**	**1,093**	**483**	**1,032**	**71**	**1,586**	**40**	**352**	**142**	**534**	**4,795**

Cut and Paste	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
	71	1,032	483	277	1,241	64	142	352	40	517	281	295



Appendix C
Trip Generation Counts

AM Peak-Hour Volume Count Worksheet

Date: 9/5/2018
Counter: Patti, Kilbee Jo
Intersection Name: Synapse School
Weather: Overcast Menlo Park

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

Start Time	Driveway 1 & 2		Driveway 3		Driveway 4		Driveway 5 & 6		Driveway 7		On-Street		Hourly Totals
	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	
7:00	0	0	0	0	0	0	0	0	0	0	0	0	
7:15	0	0	0	0	0	0	1	0	1	0	0	0	
7:30	0	0	2	0	0	0	1	0	2	0	1	0	
7:45	2	0	3	0	0	0	1	0	2	0	1	1	
8:00	0	0	5	0	1	1	2	0	5	0	1	1	
8:15	15	0	5	0	2	2	7	0	8	0	2	2	
8:30	41	15	5	0	2	2	20	5	11	2	2	2	
8:45	72	46	5	0	3	3	50	26	16	8	2	2	
9:00	82	65	5	0	4	4	62	41	16	8	2	2	
Peak Hour													
7:00 - 8:00	0	0	5	0	1	1	2	0	5	0	1	1	16
7:15 - 8:15	15	0	5	0	2	2	6	0	7	0	2	2	41
7:30 - 8:30	41	15	3	0	2	2	19	5	9	2	1	2	101
7:45 - 8:45	70	46	2	0	3	3	49	26	14	8	1	1	223
8:00 - 9:00	82	65	0	0	3	3	60	41	11	8	1	1	275
Peak Volumes:	**82**	**65**	**0**	**0**	**3**	**3**	**60**	**41**	**11**	**8**	**1**	**1**	**275**

Afternoon Peak-Hour Volume Count Worksheet

Date: 9/5/2018
Counter: Patti, Kilbee Jo
Intersection Name: Synapse School
Weather: Overcast Menlo Park

AUTO-CENSUS
Traffic Monitoring and Analysis
870 Castlewood Dr. #1
Los Gatos, CA 95032
Phone 408-826-9673 Fax 408-877-1625

	Driveway 1 & 2		Closed Driveway 3		Construction Driveway 4		Driveway 5 & 6		Driveway 7		On-Street		
Start Time	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	
2:00	0	0	0	0	0	0	0	0	0	0	0	0	
2:15	0	0	0	0	0	0	1	0	0	0	0	0	
2:30	0	0	0	0	0	0	1	1	0	0	0	0	
2:45	0	0	0	0	0	1	2	1	0	0	1	1	
3:00	2	0	0	0	0	2	5	1	0	0	1	1	
3:15	21	8	0	0	0	2	9	7	1	1	1	1	
3:30	41	38	0	0	0	2	24	8	1	6	2	1	
3:45	44	44	0	0	0	3	58	20	1	32	2	2	
4:00	46	45	0	2	0	3	59	21	1	33	3	2	
Peak Hour													Hourly Totals
2:00 - 3:00	2	0	0	0	0	2	5	1	0	0	1	1	12
2:15 - 3:15	21	8	0	0	0	2	8	7	1	1	1	1	50
2:30 - 3:30	41	38	0	0	0	2	23	7	1	6	2	1	121
2:45 - 3:45	44	44	0	0	0	2	56	19	1	32	1	1	200
3:00 - 4:00	44	45	0	2	0	1	54	20	1	33	2	1	203
Peak Volumes:	**44**	**45**	**0**	**2**	**0**	**1**	**54**	**20**	**1**	**33**	**2**	**1**	**203**

Appendix D
Intersection Level of Service Calculations

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	18	6	16	38	49	5	107	10	73	170	43
Future Vol, veh/h	31	18	6	16	38	49	5	107	10	73	170	43
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	18	6	16	38	49	5	107	10	73	170	43
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	8.5	8.4	8.5	9.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	56%	16%	26%
Vol Thru, %	88%	33%	37%	59%
Vol Right, %	8%	11%	48%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	122	55	103	286
LT Vol	5	31	16	73
Through Vol	107	18	38	170
RT Vol	10	6	49	43
Lane Flow Rate	122	55	103	286
Geometry Grp	1	1	1	1
Degree of Util (X)	0.156	0.077	0.134	0.351
Departure Headway (Hd)	4.591	5.042	4.679	4.417
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	780	708	764	815
Service Time	2.627	3.086	2.719	2.447
HCM Lane V/C Ratio	0.156	0.078	0.135	0.351
HCM Control Delay	8.5	8.5	8.4	9.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.2	0.5	1.6

Intersection	
Intersection Delay, s/veh	18.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	89	42	32	18	27	94	13	207	37	87	363	92
Future Vol, veh/h	89	42	32	18	27	94	13	207	37	87	363	92
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	89	42	32	18	27	94	13	207	37	87	363	92
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	12	11	12.5	24.9
HCM LOS	B	B	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	55%	13%	16%
Vol Thru, %	81%	26%	19%	67%
Vol Right, %	14%	20%	68%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	257	163	139	542
LT Vol	13	89	18	87
Through Vol	207	42	27	363
RT Vol	37	32	94	92
Lane Flow Rate	257	163	139	542
Geometry Grp	1	1	1	1
Degree of Util (X)	0.402	0.287	0.233	0.787
Departure Headway (Hd)	5.638	6.335	6.041	5.229
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	635	562	589	688
Service Time	3.714	4.424	4.133	3.289
HCM Lane V/C Ratio	0.405	0.29	0.236	0.788
HCM Control Delay	12.5	12	11	24.9
HCM Lane LOS	B	B	B	C
HCM 95th-tile Q	1.9	1.2	0.9	7.8

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	11	74	1	11	0	117	3	4	0	0	0
Future Vol, veh/h	2	11	74	1	11	0	117	3	4	0	0	0
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	11	74	1	11	0	117	3	4	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	11	0	0	86	0	0	66	66	49	69	103	11
Stage 1	-	-	-	-	-	-	53	53	-	13	13	-
Stage 2	-	-	-	-	-	-	13	13	-	56	90	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1608	-	-	1510	-	-	927	825	1020	923	787	1070
Stage 1	-	-	-	-	-	-	960	851	-	1007	885	-
Stage 2	-	-	-	-	-	-	1007	885	-	956	820	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1608	-	-	1509	-	-	925	823	1019	916	785	1070
Mov Cap-2 Maneuver	-	-	-	-	-	-	925	823	-	916	785	-
Stage 1	-	-	-	-	-	-	958	849	-	1006	884	-
Stage 2	-	-	-	-	-	-	1006	884	-	948	818	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.6	9.5	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	925	1608	-	-	1509	-	-	-
HCM Lane V/C Ratio	0.134	0.001	-	-	0.001	-	-	-
HCM Control Delay (s)	9.5	7.2	0	-	7.4	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	43	20	9	850	630	119
Future Vol, veh/h	43	20	9	850	630	119
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	20	9	850	630	119

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1501	633	752	0	-	0
Stage 1	633	-	-	-	-	-
Stage 2	868	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	134	480	858	-	-	-
Stage 1	529	-	-	-	-	-
Stage 2	411	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	131	479	856	-	-	-
Mov Cap-2 Maneuver	328	-	-	-	-	-
Stage 1	517	-	-	-	-	-
Stage 2	410	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.9	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	856	-	364	-	-
HCM Lane V/C Ratio	0.011	-	0.173	-	-
HCM Control Delay (s)	9.2	0	16.9	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	444	12	339	425	0	856
Future Volume (veh/h)	444	12	339	425	0	856
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	444	12	339	0	0	856
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	529	14	1471	0	0	1471
Arrive On Green	0.31	0.31	0.42	0.00	0.00	0.42
Sat Flow, veh/h	1718	46	3725	0	0	3725
Grp Volume(v), veh/h	457	0	339	0	0	856
Grp Sat Flow(s),veh/h/ln	1769	0	1770	0	0	1770
Q Serve(g_s), s	6.5	0.0	1.7	0.0	0.0	5.1
Cycle Q Clear(g_c), s	6.5	0.0	1.7	0.0	0.0	5.1
Prop In Lane	0.97	0.03		0.00	0.00	
Lane Grp Cap(c), veh/h	545	0	1471	0	0	1471
V/C Ratio(X)	0.84	0.00	0.23	0.00	0.00	0.58
Avail Cap(c_a), veh/h	978	0	2282	0	0	2282
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	8.8	0.0	5.1	0.0	0.0	6.1
Incr Delay (d2), s/veh	1.4	0.0	0.1	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.8	0.0	0.0	2.5
LnGrp Delay(d),s/veh	10.1	0.0	5.2	0.0	0.0	6.6
LnGrp LOS	B		A			A
Approach Vol, veh/h	457		339			856
Approach Delay, s/veh	10.1		5.2			6.6
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		15.8		11.4		15.8		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		17.5		15.0		17.5		
Max Q Clear Time (g_c+I1), s		3.7		8.5		7.1		
Green Ext Time (p_c), s		2.1		0.1		4.2		

Intersection Summary	
HCM 2010 Ctrl Delay	7.3
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	351	490	17	245	69	122	204	17	65	340	15
Future Volume (veh/h)	37	351	490	17	245	69	122	204	17	65	340	15
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.91	0.99		0.91	1.00		0.96	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	37	351	490	17	245	69	122	204	17	65	340	15
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	132	1157	905	75	927	251	156	261	348	79	411	406
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.23	0.23	0.23	0.26	0.26	0.26
Sat Flow, veh/h	227	3063	1440	85	2454	665	684	1144	1526	297	1551	1531
Grp Volume(v), veh/h	200	188	490	175	0	156	326	0	17	405	0	15
Grp Sat Flow(s),veh/h/ln	1680	1610	1440	1702	0	1503	1829	0	1526	1848	0	1531
Q Serve(g_s), s	0.0	7.6	18.8	0.0	0.0	6.7	15.5	0.0	0.8	19.1	0.0	0.7
Cycle Q Clear(g_c), s	6.9	7.6	18.8	6.0	0.0	6.7	15.5	0.0	0.8	19.1	0.0	0.7
Prop In Lane	0.19		1.00	0.10		0.44	0.37		1.00	0.16		1.00
Lane Grp Cap(c), veh/h	681	608	905	685	0	568	417	0	348	489	0	406
V/C Ratio(X)	0.29	0.31	0.54	0.26	0.00	0.27	0.78	0.00	0.05	0.83	0.00	0.04
Avail Cap(c_a), veh/h	681	608	905	685	0	568	750	0	626	897	0	743
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.1	20.3	10.9	19.8	0.0	20.0	33.6	0.0	27.9	32.1	0.0	25.3
Incr Delay (d2), s/veh	1.1	1.3	2.3	0.9	0.0	1.2	3.2	0.0	0.1	3.6	0.0	0.0
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	3.8	3.6	12.3	3.2	0.0	3.0	8.2	0.0	0.3	10.3	0.0	0.3
LnGrp Delay(d),s/veh	21.2	21.7	13.2	20.7	0.0	21.2	36.8	0.0	28.0	35.7	0.0	25.3
LnGrp LOS	C	C	B	C		C	D		C	D		C
Approach Vol, veh/h		878			331			343			420	
Approach Delay, s/veh		16.9			21.0			36.4			35.4	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		39.0		25.1		39.0		28.6
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		35.0		38.0		35.0		45.0
Max Q Clear Time (g_c+I1), s		20.8		17.5		8.7		21.1
Green Ext Time (p_c), s		3.9		2.1		2.2		2.8

Intersection Summary	
HCM 2010 Ctrl Delay	24.9
HCM 2010 LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	337	374	213	513	458	238
Future Volume (veh/h)	337	374	213	513	458	238
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	337	374	213	513	458	238
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	371	1216	767	1075	497	775
Arrive On Green	0.21	0.65	0.41	0.41	0.28	0.28
Sat Flow, veh/h	1774	1863	1863	1535	1774	1583
Grp Volume(v), veh/h	337	374	213	513	458	238
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1535	1774	1583
Q Serve(g_s), s	23.2	10.9	9.5	19.4	31.4	11.3
Cycle Q Clear(g_c), s	23.2	10.9	9.5	19.4	31.4	11.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	371	1216	767	1075	497	775
V/C Ratio(X)	0.91	0.31	0.28	0.48	0.92	0.31
Avail Cap(c_a), veh/h	637	1216	767	1075	847	1087
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	48.4	9.4	24.5	8.9	43.8	19.2
Incr Delay (d2), s/veh	10.1	0.7	0.9	1.5	8.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.5	5.8	5.1	16.1	16.5	12.5
LnGrp Delay(d),s/veh	58.4	10.1	25.4	10.5	51.7	19.4
LnGrp LOS	E	B	C	B	D	B
Approach Vol, veh/h		711	726		696	
Approach Delay, s/veh		33.0	14.8		40.7	
Approach LOS		C	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		86.0		39.3	30.2	55.8		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 82		* 60	45.0	* 33		
Max Q Clear Time (g_c+I1), s		12.9		33.4	25.2	21.4		
Green Ext Time (p_c), s		1.6		1.7	1.0	1.6		

Intersection Summary	
HCM 2010 Ctrl Delay	29.3
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	60	0	54	14	195	0	759	62	232	753	94
Future Volume (veh/h)	149	60	0	54	14	195	0	759	62	232	753	94
Number	7	4	14	3	8	18	1	6	16	5	2	12
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		0.98	1.00		0.98	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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	149	60	0	54	14	195	0	759	62	232	753	94
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	245	86	0	318	74	888	0	890	73	616	2115	264
Arrive On Green	0.22	0.22	0.00	0.22	0.22	0.22	0.00	0.27	0.27	0.35	0.67	0.67
Sat Flow, veh/h	771	396	0	1094	339	1555	0	3400	270	1774	3167	395
Grp Volume(v), veh/h	209	0	0	68	0	195	0	406	415	232	421	426
Grp Sat Flow(s),veh/h/ln	1168	0	0	1433	0	1555	0	1770	1807	1774	1770	1793
Q Serve(g_s), s	11.1	0.0	0.0	0.0	0.0	0.0	0.0	17.4	17.4	7.9	8.3	8.3
Cycle Q Clear(g_c), s	14.1	0.0	0.0	3.0	0.0	0.0	0.0	17.4	17.4	7.9	8.3	8.3
Prop In Lane	0.71		0.00	0.79		1.00	0.00		0.15	1.00		0.22
Lane Grp Cap(c), veh/h	331	0	0	392	0	888	0	476	486	616	1182	1197
V/C Ratio(X)	0.63	0.00	0.00	0.17	0.00	0.22	0.00	0.85	0.85	0.38	0.36	0.36
Avail Cap(c_a), veh/h	489	0	0	564	0	1077	0	535	547	616	1182	1197
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	0.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	30.7	0.0	0.0	25.6	0.0	8.7	0.0	27.7	27.7	19.6	5.8	5.8
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.2	0.0	0.1	0.0	17.3	17.1	0.1	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	4.5	0.0	0.0	1.2	0.0	2.1	0.0	10.7	11.0	3.9	4.2	4.3
LnGrp Delay(d),s/veh	32.2	0.0	0.0	25.8	0.0	8.7	0.0	45.0	44.8	19.7	6.5	6.5
LnGrp LOS	C			C		A		D	D	B	A	A
Approach Vol, veh/h		209			263			821			1079	
Approach Delay, s/veh		32.2			13.1			44.9			9.4	
Approach LOS		C			B			D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		58.0		22.0	32.4	25.6		22.0
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		43.7		27.1	15.9	* 24		27.1
Max Q Clear Time (g_c+I1), s		10.3		16.1	9.9	19.4		5.0
Green Ext Time (p_c), s		6.3		0.8	0.2	2.1		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	24.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	561	1670	595	170	519	773
Future Volume (veh/h)	561	1670	595	170	519	773
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	561	1670	595	170	519	773
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	676	2755	1140	317	621	1522
Arrive On Green	0.20	0.54	0.29	0.29	0.35	0.35
Sat Flow, veh/h	3442	5253	4083	1089	1774	2787
Grp Volume(v), veh/h	561	1670	513	252	519	773
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1615	1774	1393
Q Serve(g_s), s	11.6	16.5	9.3	9.7	19.8	12.9
Cycle Q Clear(g_c), s	11.6	16.5	9.3	9.7	19.8	12.9
Prop In Lane	1.00			0.67	1.00	1.00
Lane Grp Cap(c), veh/h	676	2755	987	470	621	1522
V/C Ratio(X)	0.83	0.61	0.52	0.54	0.84	0.51
Avail Cap(c_a), veh/h	839	2755	987	470	769	1755
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	28.5	11.5	21.9	22.0	22.1	10.5
Incr Delay (d2), s/veh	5.8	1.0	2.0	4.3	6.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	7.8	4.6	4.8	10.8	4.9
LnGrp Delay(d),s/veh	34.3	12.5	23.8	26.3	28.7	10.8
LnGrp LOS	C	B	C	C	C	B
Approach Vol, veh/h		2231	765		1292	
Approach Delay, s/veh		18.0	24.6		18.0	
Approach LOS		B	C		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	18.5	25.5				44.0		29.8
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	18.0	18.0				40.0		32.0
Max Q Clear Time (g_c+I1), s	13.6	11.7				18.5		21.8
Green Ext Time (p_c), s	0.9	2.6				12.7		4.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	464	47	169	32	17	21	112	803	96	19	937	426
Future Volume (veh/h)	464	47	169	32	17	21	112	803	96	19	937	426
Number	3	8	18	7	4	14	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		0.98	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	498	0	169	32	17	21	112	803	96	19	937	426
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	570	0	252	103	44	54	593	2342	1115	25	1196	774
Arrive On Green	0.16	0.00	0.16	0.06	0.06	0.06	0.67	1.00	1.00	0.01	0.34	0.34
Sat Flow, veh/h	3548	0	1572	1774	750	926	1774	3539	1545	1774	3539	1538
Grp Volume(v), veh/h	498	0	169	32	0	38	112	803	96	19	937	426
Grp Sat Flow(s),veh/h/ln	1774	0	1572	1774	0	1676	1774	1770	1545	1774	1770	1538
Q Serve(g_s), s	21.9	0.0	16.2	2.8	0.0	3.5	3.8	0.0	0.0	1.7	38.1	30.7
Cycle Q Clear(g_c), s	21.9	0.0	16.2	2.8	0.0	3.5	3.8	0.0	0.0	1.7	38.1	30.7
Prop In Lane	1.00		1.00	1.00		0.55	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	570	0	252	103	0	98	593	2342	1115	25	1196	774
V/C Ratio(X)	0.87	0.00	0.67	0.31	0.00	0.39	0.19	0.34	0.09	0.75	0.78	0.55
Avail Cap(c_a), veh/h	843	0	373	308	0	291	593	2342	1115	67	1336	835
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.6	0.0	63.2	72.3	0.0	72.6	18.3	0.0	0.0	78.6	47.7	27.8
Incr Delay (d2), s/veh	6.2	0.0	2.3	1.2	0.0	1.9	0.0	0.4	0.1	15.2	5.2	2.8
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	11.3	0.0	7.2	1.4	0.0	1.7	1.9	0.1	0.0	0.9	19.5	17.9
LnGrp Delay(d),s/veh	71.7	0.0	65.4	73.5	0.0	74.5	18.3	0.4	0.1	93.8	52.9	30.6
LnGrp LOS	E		E	E		E	B	A	A	F	D	C
Approach Vol, veh/h		667			70			1011			1382	
Approach Delay, s/veh		70.1			74.0			2.3			46.6	
Approach LOS		E			E			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.3	110.5		13.5	58.1	58.7		29.7
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.6	* 4.6		4.0
Max Green Setting (Gmax), s	6.0	71.4		* 28	17.0	* 60		38.0
Max Q Clear Time (g_c+I1), s	3.7	2.0		5.5	5.8	40.1		23.9
Green Ext Time (p_c), s	0.0	16.2		0.2	0.1	13.9		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	37.9
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	30.6
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	267	63	205	305	33	69	118	214	37	159	55
Future Vol, veh/h	34	267	63	205	305	33	69	118	214	37	159	55
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	267	63	205	305	33	69	118	214	37	159	55
Number of Lanes	1	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	3
HCM Control Delay	28.1	38.3	21.7	31.6
HCM LOS	D	E	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1
Vol Left, %	37%	0%	100%	0%	0%	100%	0%	15%
Vol Thru, %	63%	0%	0%	100%	0%	0%	90%	63%
Vol Right, %	0%	100%	0%	0%	100%	0%	10%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	187	214	34	267	63	205	338	251
LT Vol	69	0	34	0	0	205	0	37
Through Vol	118	0	0	267	0	0	305	159
RT Vol	0	214	0	0	63	0	33	55
Lane Flow Rate	187	214	34	267	63	205	338	251
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.509	0.528	0.096	0.716	0.156	0.553	0.856	0.686
Departure Headway (Hd)	9.802	8.884	10.17	9.649	8.919	9.713	9.117	9.839
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	368	407	353	376	403	373	399	366
Service Time	7.541	6.622	7.906	7.384	6.654	7.448	6.852	7.595
HCM Lane V/C Ratio	0.508	0.526	0.096	0.71	0.156	0.55	0.847	0.686
HCM Control Delay	22.3	21.2	14	33.4	13.3	23.9	47.1	31.6
HCM Lane LOS	C	C	B	D	B	C	E	D
HCM 95th-tile Q	2.8	3	0.3	5.4	0.5	3.2	8.2	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	139	23	229	163	174	57	1474	102	167	1298	49
Future Volume (veh/h)	4	139	23	229	163	174	57	1474	102	167	1298	49
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	3	180	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	4	139	0	229	163	174	57	1474	102	167	1298	0
Adj No. of Lanes	0	2	0	0	2	0	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	30	854	0	292	215	243	82	2509	88	293	2142	958
Arrive On Green	0.27	0.27	0.00	0.27	0.27	0.27	0.04	0.52	0.52	0.15	0.62	0.00
Sat Flow, veh/h	34	3294	0	956	801	908	1774	4853	336	1774	3539	1583
Grp Volume(v), veh/h	74	69	0	276	0	290	57	1030	546	167	1298	0
Grp Sat Flow(s),veh/h/ln	1634	1610	0	1154	0	1510	1774	1695	1799	1774	1770	1583
Q Serve(g_s), s	0.2	5.9	0.0	36.2	0.0	30.9	5.7	37.6	37.6	15.8	38.9	0.0
Cycle Q Clear(g_c), s	31.1	5.9	0.0	42.1	0.0	30.9	5.7	37.6	37.6	15.8	38.9	0.0
Prop In Lane	0.05		0.00	0.83		0.60	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	452	432	0	345	0	405	82	1678	910	293	2142	958
V/C Ratio(X)	0.16	0.16	0.00	0.80	0.00	0.72	0.69	0.61	0.60	0.57	0.61	0.00
Avail Cap(c_a), veh/h	652	605	0	488	0	568	149	1750	929	338	2205	986
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	51.3	51.4	0.0	68.0	0.0	60.8	85.0	43.9	42.3	70.6	22.7	0.0
Incr Delay (d2), s/veh	0.2	0.2	0.0	6.3	0.0	2.5	10.0	1.7	2.9	1.8	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	31.4	95.2	78.3	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	2.7	0.0	14.2	0.0	13.6	4.4	59.7	58.2	8.0	20.8	0.0
LnGrp Delay(d),s/veh	51.5	51.6	0.0	74.3	0.0	63.4	126.4	140.8	123.5	72.4	24.0	0.0
LnGrp LOS	D	D		E		E	F	F	F	E	C	
Approach Vol, veh/h		143			566			1633			1465	
Approach Delay, s/veh		51.5			68.7			134.5			29.5	
Approach LOS		D			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	30.3	96.0		51.9	11.3	115.0		51.9
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	34.0	92.0		67.0	15.0	111.0		67.0
Max Q Clear Time (g_c+I1), s	17.8	39.6		33.1	7.7	40.9		44.1
Green Ext Time (p_c), s	0.4	17.4		0.8	0.0	14.9		3.8

Intersection Summary	
HCM 2010 Ctrl Delay	81.2
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	296	57	413	259	165	67	1504	465	240	1289	63
Future Volume (veh/h)	134	296	57	413	259	165	67	1504	465	240	1289	63
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		0.95	1.00		0.96	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	134	296	57	413	259	165	67	1504	465	240	1289	63
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	156	351	67	470	313	387	85	1982	1092	286	2108	1083
Arrive On Green	0.09	0.12	0.12	0.14	0.17	0.17	0.05	0.56	0.56	0.08	0.60	0.60
Sat Flow, veh/h	1774	2945	557	3442	1863	1522	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	134	176	177	413	259	165	67	1504	465	240	1289	63
Grp Sat Flow(s),veh/h/ln	1774	1770	1733	1721	1863	1522	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	11.8	15.4	15.9	18.7	21.4	14.5	5.9	51.6	20.4	10.9	36.8	2.1
Cycle Q Clear(g_c), s	11.8	15.4	15.9	18.7	21.4	14.5	5.9	51.6	20.4	10.9	36.8	2.1
Prop In Lane	1.00		0.32	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	156	211	207	470	313	387	85	1982	1092	286	2108	1083
V/C Ratio(X)	0.86	0.83	0.86	0.88	0.83	0.43	0.79	0.76	0.43	0.84	0.61	0.06
Avail Cap(c_a), veh/h	223	267	262	628	387	448	145	1982	1092	368	2108	1083
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	71.5	68.4	68.6	67.3	63.9	50.0	74.9	26.7	10.4	71.8	20.4	8.3
Incr Delay (d2), s/veh	19.8	16.2	19.7	10.7	11.6	0.7	15.1	2.8	1.2	12.6	1.3	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	6.7	8.5	8.8	9.6	12.0	6.2	3.3	25.8	9.0	5.7	18.3	0.9
LnGrp Delay(d),s/veh	91.2	84.6	88.3	78.0	75.5	50.7	90.0	29.5	11.6	84.4	21.8	8.4
LnGrp LOS	F	F	F	E	E	D	F	C	B	F	C	A
Approach Vol, veh/h		487			837			2036			1592	
Approach Delay, s/veh		87.8			71.9			27.4			30.7	
Approach LOS		F			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	17.2	93.0	25.7	23.0	11.6	98.6	18.0	30.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	89.0	29.0	24.0	13.0	93.0	20.0	33.0
Max Q Clear Time (g_c+I1), s	12.9	53.6	20.7	17.9	7.9	38.8	13.8	23.4
Green Ext Time (p_c), s	0.3	19.1	1.0	1.0	0.0	14.6	0.2	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	41.9
HCM 2010 LOS	D

Notes
User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	736	586	1727	0	0	970
Future Volume (veh/h)	736	586	1727	0	0	970
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	736	586	1727	0	0	970
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	915	741	2232	0	0	2232
Arrive On Green	0.27	0.27	0.63	0.00	0.00	0.63
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	736	586	1727	0	0	970
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	16.0	15.6	28.2	0.0	0.0	11.2
Cycle Q Clear(g_c), s	16.0	15.6	28.2	0.0	0.0	11.2
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	915	741	2232	0	0	2232
V/C Ratio(X)	0.80	0.79	0.77	0.00	0.00	0.43
Avail Cap(c_a), veh/h	1076	871	2232	0	0	2232
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.57	0.00	0.00	1.00
Uniform Delay (d), s/veh	27.4	27.3	10.7	0.0	0.0	7.5
Incr Delay (d2), s/veh	3.9	4.3	1.5	0.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	6.5	13.9	0.0	0.0	5.6
LnGrp Delay(d),s/veh	31.4	31.6	12.2	0.0	0.0	8.1
LnGrp LOS	C	C	B			A
Approach Vol, veh/h	1322		1727			970
Approach Delay, s/veh	31.5		12.2			8.1
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		54.5				54.5		25.5
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		46.7				46.7		25.0
Max Q Clear Time (g_c+I1), s		30.2				13.2		18.0
Green Ext Time (p_c), s		11.7				8.4		3.3

Intersection Summary	
HCM 2010 Ctrl Delay	17.6
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1249	450	0	965	1504	0
Future Volume (veh/h)	1249	450	0	965	1504	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1249	450	0	965	1504	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1346	619	0	1792	1792	0
Arrive On Green	0.39	0.39	0.00	0.51	1.00	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1249	450	0	965	1504	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	27.7	19.3	0.0	14.8	0.0	0.0
Cycle Q Clear(g_c), s	27.7	19.3	0.0	14.8	0.0	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1346	619	0	1792	1792	0
V/C Ratio(X)	0.93	0.73	0.00	0.54	0.84	0.00
Avail Cap(c_a), veh/h	1415	651	0	1792	1792	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.79	0.00
Uniform Delay (d), s/veh	23.3	20.7	0.0	13.4	0.0	0.0
Incr Delay (d2), s/veh	10.2	3.2	0.0	1.2	3.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.1	8.9	0.0	7.4	1.0	0.0
LnGrp Delay(d),s/veh	33.5	24.0	0.0	14.6	3.9	0.0
LnGrp LOS	C	C		B	A	
Approach Vol, veh/h	1699			965	1504	
Approach Delay, s/veh	31.0			14.6	3.9	
Approach LOS	C			B	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		44.6		35.4		44.6		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		38.9		32.9		38.9		
Max Q Clear Time (g_c+I1), s		16.8		29.7		2.0		
Green Ext Time (p_c), s		4.9		1.6		10.4		

Intersection Summary	
HCM 2010 Ctrl Delay	17.4
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	12.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	282	40	74	343	29	52	89	63	21	101	58
Future Vol, veh/h	27	282	40	74	343	29	52	89	63	21	101	58
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	282	40	74	343	29	52	89	63	21	101	58
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	12.1	13.4	12.8	12.3
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	25%	16%	0%	30%	0%	12%
Vol Thru, %	44%	84%	78%	70%	86%	56%
Vol Right, %	31%	0%	22%	0%	14%	32%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	204	168	181	246	201	180
LT Vol	52	27	0	74	0	21
Through Vol	89	141	141	172	172	101
RT Vol	63	0	40	0	29	58
Lane Flow Rate	204	168	181	246	200	180
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.354	0.305	0.317	0.441	0.346	0.314
Departure Headway (Hd)	6.249	6.538	6.299	6.467	6.21	6.277
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	571	546	567	552	575	567
Service Time	4.339	4.324	4.084	4.247	3.99	4.37
HCM Lane V/C Ratio	0.357	0.308	0.319	0.446	0.348	0.317
HCM Control Delay	12.8	12.2	12	14.3	12.3	12.3
HCM Lane LOS	B	B	B	B	B	B
HCM 95th-tile Q	1.6	1.3	1.4	2.2	1.5	1.3

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	53	771	7	8	356	38	9	6	35	93	2	79
Future Vol, veh/h	53	771	7	8	356	38	9	6	35	93	2	79
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	771	7	8	356	38	9	6	35	93	2	79

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	425	0	0	794	0	0	1092	1338	430	942	1322	228
Stage 1	-	-	-	-	-	-	897	897	-	422	422	-
Stage 2	-	-	-	-	-	-	195	441	-	520	900	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1131	-	-	823	-	-	169	152	573	218	155	775
Stage 1	-	-	-	-	-	-	301	357	-	580	587	-
Stage 2	-	-	-	-	-	-	788	575	-	507	355	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1102	-	-	812	-	-	137	132	554	174	135	755
Mov Cap-2 Maneuver	-	-	-	-	-	-	137	132	-	174	135	-
Stage 1	-	-	-	-	-	-	272	322	-	517	564	-
Stage 2	-	-	-	-	-	-	694	553	-	418	321	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.3	20.2	40.9
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	287	1102	-	-	812	-	-	266
HCM Lane V/C Ratio	0.174	0.048	-	-	0.01	-	-	0.654
HCM Control Delay (s)	20.2	8.4	0.3	-	9.5	0.1	-	40.9
HCM Lane LOS	C	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	0.6	0.2	-	-	0	-	-	4.2

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	77	25	63	125	1	11	1	69	4	5	0
Future Vol, veh/h	0	77	25	63	125	1	11	1	69	4	5	0
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	77	25	63	125	1	11	1	69	4	5	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	130	0	0	103	0	0	346	347	92	382	359	131
Stage 1	-	-	-	-	-	-	91	91	-	256	256	-
Stage 2	-	-	-	-	-	-	255	256	-	126	103	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1455	-	-	1489	-	-	608	576	965	576	568	919
Stage 1	-	-	-	-	-	-	916	820	-	749	696	-
Stage 2	-	-	-	-	-	-	749	696	-	878	810	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1450	-	-	1488	-	-	582	547	963	513	540	915
Mov Cap-2 Maneuver	-	-	-	-	-	-	582	547	-	513	540	-
Stage 1	-	-	-	-	-	-	915	819	-	747	662	-
Stage 2	-	-	-	-	-	-	709	662	-	813	809	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.5	9.5	11.9
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	877	1450	-	-	1488	-	-	528
HCM Lane V/C Ratio	0.092	-	-	-	0.042	-	-	0.017
HCM Control Delay (s)	9.5	0	-	-	7.5	0	-	11.9
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	64	17	77	90	2	4	10	15	5	47	25
Future Vol, veh/h	6	64	17	77	90	2	4	10	15	5	47	25
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	64	17	77	90	2	4	10	15	5	47	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	94	0	0	83	0	0	369	335	76	345	342	94
Stage 1	-	-	-	-	-	-	87	87	-	247	247	-
Stage 2	-	-	-	-	-	-	282	248	-	98	95	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1500	-	-	1514	-	-	588	585	985	609	580	963
Stage 1	-	-	-	-	-	-	921	823	-	757	702	-
Stage 2	-	-	-	-	-	-	725	701	-	908	816	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1498	-	-	1511	-	-	510	549	983	564	544	961
Mov Cap-2 Maneuver	-	-	-	-	-	-	510	549	-	564	544	-
Stage 1	-	-	-	-	-	-	915	818	-	752	663	-
Stage 2	-	-	-	-	-	-	620	662	-	879	811	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	3.4	10.3	11.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	702	1498	-	-	1511	-	-	635
HCM Lane V/C Ratio	0.041	0.004	-	-	0.051	-	-	0.121
HCM Control Delay (s)	10.3	7.4	0	-	7.5	0	-	11.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.2	-	-	0.4

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	71	9	56	157	1	9	3	16	3	6	7
Future Vol, veh/h	9	71	9	56	157	1	9	3	16	3	6	7
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	71	9	56	157	1	9	3	16	3	6	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	159	0	0	80	0	0	371	365	78	376	369	160
Stage 1	-	-	-	-	-	-	94	94	-	271	271	-
Stage 2	-	-	-	-	-	-	277	271	-	105	98	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1420	-	-	1518	-	-	586	563	983	581	560	885
Stage 1	-	-	-	-	-	-	913	817	-	735	685	-
Stage 2	-	-	-	-	-	-	729	685	-	901	814	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1419	-	-	1518	-	-	556	536	981	547	533	884
Mov Cap-2 Maneuver	-	-	-	-	-	-	556	536	-	547	533	-
Stage 1	-	-	-	-	-	-	907	811	-	729	657	-
Stage 2	-	-	-	-	-	-	687	657	-	875	808	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	2	10.1	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	735	1419	-	-	1518	-	-	649
HCM Lane V/C Ratio	0.038	0.006	-	-	0.037	-	-	0.025
HCM Control Delay (s)	10.1	7.6	0	-	7.5	0	-	10.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	101	2	33	71	2	98
Future Vol, veh/h	101	2	33	71	2	98
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	101	2	33	71	2	98

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	106	0	243	105
Stage 1	-	-	-	-	105	-
Stage 2	-	-	-	-	138	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1485	-	773	949
Stage 1	-	-	-	-	919	-
Stage 2	-	-	-	-	908	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1481	-	752	947
Mov Cap-2 Maneuver	-	-	-	-	752	-
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	887	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	942	-	-	1481	-
HCM Lane V/C Ratio	0.106	-	-	0.022	-
HCM Control Delay (s)	9.3	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	80	72	1	2	120	3	3	5	5	5	5	67
Future Vol, veh/h	80	72	1	2	120	3	3	5	5	5	5	67
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	80	72	1	2	120	3	3	5	5	5	5	67

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	125	0	0	74	0	0	397	363	74	366	362	125
Stage 1	-	-	-	-	-	-	234	234	-	128	128	-
Stage 2	-	-	-	-	-	-	163	129	-	238	234	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1462	-	-	1526	-	-	563	565	988	590	565	926
Stage 1	-	-	-	-	-	-	769	711	-	876	790	-
Stage 2	-	-	-	-	-	-	839	789	-	765	711	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1460	-	-	1525	-	-	495	531	987	556	531	924
Mov Cap-2 Maneuver	-	-	-	-	-	-	495	531	-	556	531	-
Stage 1	-	-	-	-	-	-	724	670	-	824	788	-
Stage 2	-	-	-	-	-	-	772	787	-	712	670	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4	0.1	10.8	9.7
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	633	1460	-	-	1525	-	-	847
HCM Lane V/C Ratio	0.021	0.055	-	-	0.001	-	-	0.091
HCM Control Delay (s)	10.8	7.6	0	-	7.4	0	-	9.7
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.3

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	28	6	10	35	47	4	107	24	51	125	29
Future Vol, veh/h	28	28	6	10	35	47	4	107	24	51	125	29
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	28	6	10	35	47	4	107	24	51	125	29
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	8.3	8.1	8.3	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	45%	11%	25%
Vol Thru, %	79%	45%	38%	61%
Vol Right, %	18%	10%	51%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	135	62	92	205
LT Vol	4	28	10	51
Through Vol	107	28	35	125
RT Vol	24	6	47	29
Lane Flow Rate	135	62	92	205
Geometry Grp	1	1	1	1
Degree of Util (X)	0.166	0.083	0.115	0.251
Departure Headway (Hd)	4.422	4.844	4.494	4.411
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	811	739	798	816
Service Time	2.447	2.877	2.523	2.434
HCM Lane V/C Ratio	0.166	0.084	0.115	0.251
HCM Control Delay	8.3	8.3	8.1	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.3	0.4	1

Intersection	
Intersection Delay, s/veh	18.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	88	23	42	71	43	160	26	230	41	48	354	58
Future Vol, veh/h	88	23	42	71	43	160	26	230	41	48	354	58
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	88	23	42	71	43	160	26	230	41	48	354	58
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	12.8	15.1	15.7	25
HCM LOS	B	C	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	58%	26%	10%
Vol Thru, %	77%	15%	16%	77%
Vol Right, %	14%	27%	58%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	297	153	274	460
LT Vol	26	88	71	48
Through Vol	230	23	43	354
RT Vol	41	42	160	58
Lane Flow Rate	297	153	274	460
Geometry Grp	1	1	1	1
Degree of Util (X)	0.512	0.292	0.479	0.755
Departure Headway (Hd)	6.208	6.871	6.298	5.911
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	579	520	570	612
Service Time	4.267	4.941	4.358	3.961
HCM Lane V/C Ratio	0.513	0.294	0.481	0.752
HCM Control Delay	15.7	12.8	15.1	25
HCM Lane LOS	C	B	C	C
HCM 95th-tile Q	2.9	1.2	2.6	6.8

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	15	64	4	17	1	78	1	2	1	3	1
Future Vol, veh/h	1	15	64	4	17	1	78	1	2	1	3	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	15	64	4	17	1	78	1	2	1	3	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	18	0	0	80	0	0	78	76	48	77	108	18
Stage 1	-	-	-	-	-	-	50	50	-	26	26	-
Stage 2	-	-	-	-	-	-	28	26	-	51	82	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1599	-	-	1518	-	-	911	814	1021	912	782	1061
Stage 1	-	-	-	-	-	-	963	853	-	992	874	-
Stage 2	-	-	-	-	-	-	989	874	-	962	827	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1599	-	-	1517	-	-	904	810	1020	907	778	1061
Mov Cap-2 Maneuver	-	-	-	-	-	-	904	810	-	907	778	-
Stage 1	-	-	-	-	-	-	961	851	-	991	871	-
Stage 2	-	-	-	-	-	-	982	871	-	958	825	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.3	9.4	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	905	1599	-	-	1517	-	-	847
HCM Lane V/C Ratio	0.09	0.001	-	-	0.003	-	-	0.006
HCM Control Delay (s)	9.4	7.3	0	-	7.4	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	20	21	973	676	50
Future Vol, veh/h	40	20	21	973	676	50
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	20	21	973	676	50

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1694	679	729	0	-	0
Stage 1	679	-	-	-	-	-
Stage 2	1015	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	102	452	875	-	-	-
Stage 1	504	-	-	-	-	-
Stage 2	350	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	96	451	873	-	-	-
Mov Cap-2 Maneuver	281	-	-	-	-	-
Stage 1	477	-	-	-	-	-
Stage 2	349	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.8	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	873	-	321	-	-
HCM Lane V/C Ratio	0.024	-	0.187	-	-
HCM Control Delay (s)	9.2	0	18.8	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	285	22	372	512	0	594
Future Volume (veh/h)	285	22	372	512	0	594
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	285	22	372	0	0	594
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	358	28	1409	0	0	1409
Arrive On Green	0.22	0.22	0.40	0.00	0.00	0.40
Sat Flow, veh/h	1628	126	3725	0	0	3725
Grp Volume(v), veh/h	308	0	372	0	0	594
Grp Sat Flow(s),veh/h/ln	1759	0	1770	0	0	1770
Q Serve(g_s), s	3.3	0.0	1.4	0.0	0.0	2.4
Cycle Q Clear(g_c), s	3.3	0.0	1.4	0.0	0.0	2.4
Prop In Lane	0.93	0.07		0.00	0.00	
Lane Grp Cap(c), veh/h	387	0	1409	0	0	1409
V/C Ratio(X)	0.80	0.00	0.26	0.00	0.00	0.42
Avail Cap(c_a), veh/h	1165	0	3516	0	0	3516
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	7.2	0.0	4.0	0.0	0.0	4.3
Incr Delay (d2), s/veh	1.4	0.0	0.1	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.7	0.0	0.0	1.2
LnGrp Delay(d),s/veh	8.7	0.0	4.1	0.0	0.0	4.5
LnGrp LOS	A		A			A
Approach Vol, veh/h	308		372			594
Approach Delay, s/veh	8.7		4.1			4.5
Approach LOS	A		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		12.3		7.3		12.3		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		19.5		13.0		19.5		
Max Q Clear Time (g_c+I1), s		3.4		5.3		4.4		
Green Ext Time (p_c), s		2.5		0.1		3.5		

Intersection Summary	
HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	314	278	14	410	84	175	167	13	68	317	76
Future Volume (veh/h)	47	314	278	14	410	84	175	167	13	68	317	76
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.91	0.99		0.91	1.00		0.96	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	47	314	278	14	410	84	175	167	13	68	317	76
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	160	984	923	54	1056	210	219	209	360	83	388	391
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.24	0.24	0.24	0.26	0.26	0.26
Sat Flow, veh/h	289	2578	1441	36	2766	551	929	887	1527	326	1520	1530
Grp Volume(v), veh/h	163	198	278	273	0	235	342	0	13	385	0	76
Grp Sat Flow(s),veh/h/ln	1257	1610	1441	1816	0	1537	1816	0	1527	1846	0	1530
Q Serve(g_s), s	1.6	8.2	8.6	0.0	0.0	10.5	16.7	0.0	0.6	18.5	0.0	3.7
Cycle Q Clear(g_c), s	12.1	8.2	8.6	10.0	0.0	10.5	16.7	0.0	0.6	18.5	0.0	3.7
Prop In Lane	0.29		1.00	0.05		0.36	0.51		1.00	0.18		1.00
Lane Grp Cap(c), veh/h	529	615	923	733	0	587	428	0	360	472	0	391
V/C Ratio(X)	0.31	0.32	0.30	0.37	0.00	0.40	0.80	0.00	0.04	0.82	0.00	0.19
Avail Cap(c_a), veh/h	529	615	923	733	0	587	751	0	632	842	0	698
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.4	20.5	8.6	21.1	0.0	21.3	33.9	0.0	27.8	33.0	0.0	27.5
Incr Delay (d2), s/veh	1.5	1.4	0.8	1.5	0.0	2.0	3.5	0.0	0.0	3.5	0.0	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	3.4	3.9	5.7	5.5	0.0	4.8	8.8	0.0	0.3	9.9	0.0	1.6
LnGrp Delay(d),s/veh	21.9	21.9	9.4	22.6	0.0	23.3	37.4	0.0	27.8	36.5	0.0	27.7
LnGrp LOS	C	C	A	C		C	D		C	D		C
Approach Vol, veh/h		639			508			355			461	
Approach Delay, s/veh		16.5			22.9			37.1			35.1	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		40.0		26.2		40.0		28.1
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		36.0		39.0		36.0		43.0
Max Q Clear Time (g_c+I1), s		14.1		18.7		12.5		20.5
Green Ext Time (p_c), s		3.4		2.2		3.3		2.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.2
HCM 2010 LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	382	303	385	607	389	299
Future Volume (veh/h)	382	303	385	607	389	299
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	382	303	385	607	389	299
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	409	1292	804	1044	427	746
Arrive On Green	0.23	0.69	0.43	0.43	0.24	0.24
Sat Flow, veh/h	1774	1863	1863	1535	1774	1583
Grp Volume(v), veh/h	382	303	385	607	389	299
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1535	1774	1583
Q Serve(g_s), s	27.0	7.6	19.0	27.4	27.3	15.8
Cycle Q Clear(g_c), s	27.0	7.6	19.0	27.4	27.3	15.8
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	409	1292	804	1044	427	746
V/C Ratio(X)	0.93	0.23	0.48	0.58	0.91	0.40
Avail Cap(c_a), veh/h	582	1292	804	1044	593	895
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	48.3	7.2	26.1	11.4	47.3	22.1
Incr Delay (d2), s/veh	15.1	0.4	2.0	2.4	13.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.0	4.0	10.2	20.8	15.0	16.3
LnGrp Delay(d),s/veh	63.4	7.6	28.1	13.7	60.9	22.3
LnGrp LOS	E	A	C	B	E	C
Approach Vol, veh/h		685	992		688	
Approach Delay, s/veh		38.7	19.3		44.1	
Approach LOS		D	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		93.0		35.0	33.5	59.5		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 89		* 43	42.0	* 43		
Max Q Clear Time (g_c+I1), s		9.6		29.3	29.0	29.4		
Green Ext Time (p_c), s		1.2		1.5	0.5	2.6		

Intersection Summary	
HCM 2010 Ctrl Delay	32.1
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	14	3	42	19	199	2	906	61	132	684	45
Future Volume (veh/h)	56	14	3	42	19	199	2	906	61	132	684	45
Number	7	4	14	3	8	18	1	6	16	5	2	12
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		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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	56	14	3	42	19	199	2	906	61	132	684	45
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	116	25	4	152	61	917	26	1064	72	839	2784	183
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.32	0.32	0.32	0.47	0.83	0.83
Sat Flow, veh/h	653	234	38	997	562	1546	1	3288	221	1774	3371	222
Grp Volume(v), veh/h	73	0	0	61	0	199	514	0	455	132	359	370
Grp Sat Flow(s),veh/h/ln	925	0	0	1559	0	1546	1861	0	1650	1774	1770	1823
Q Serve(g_s), s	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.1	5.9	6.2	6.2
Cycle Q Clear(g_c), s	12.0	0.0	0.0	4.9	0.0	0.0	36.1	0.0	36.1	5.9	6.2	6.2
Prop In Lane	0.77		0.04	0.69		1.00	0.00		0.13	1.00		0.12
Lane Grp Cap(c), veh/h	146	0	0	213	0	917	628	0	534	839	1461	1506
V/C Ratio(X)	0.50	0.00	0.00	0.29	0.00	0.22	0.82	0.00	0.85	0.16	0.25	0.25
Avail Cap(c_a), veh/h	283	0	0	376	0	1085	993	0	859	839	1461	1506
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	0.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	62.5	0.0	0.0	57.8	0.0	14.0	44.2	0.0	44.2	21.0	2.7	2.7
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.5	0.0	0.1	11.3	0.0	15.8	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.0	2.2	0.0	3.7	20.5	0.0	18.8	2.9	3.1	3.2
LnGrp Delay(d),s/veh	64.4	0.0	0.0	58.3	0.0	14.1	55.6	0.0	60.0	21.0	3.0	3.0
LnGrp LOS	E			E		B	E		E	C	A	A
Approach Vol, veh/h		73			260			969			861	
Approach Delay, s/veh		64.4			24.5			57.7			5.8	
Approach LOS		E			C			E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		120.2		19.8	70.8	49.4		19.8
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		100.4		30.4	23.9	* 73		30.4
Max Q Clear Time (g_c+I1), s		8.2		14.0	7.9	38.1		6.9
Green Ext Time (p_c), s		5.4		0.3	0.1	7.2		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	33.2
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	563	774	1360	317	258	557
Future Volume (veh/h)	563	774	1360	317	258	557
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	563	774	1360	317	258	557
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	681	3468	1738	404	354	1108
Arrive On Green	0.20	0.68	0.42	0.42	0.20	0.20
Sat Flow, veh/h	3442	5253	4260	952	1774	2787
Grp Volume(v), veh/h	563	774	1126	551	258	557
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1654	1774	1393
Q Serve(g_s), s	10.6	3.9	19.3	19.4	9.2	10.2
Cycle Q Clear(g_c), s	10.6	3.9	19.3	19.4	9.2	10.2
Prop In Lane	1.00			0.58	1.00	1.00
Lane Grp Cap(c), veh/h	681	3468	1440	702	354	1108
V/C Ratio(X)	0.83	0.22	0.78	0.78	0.73	0.50
Avail Cap(c_a), veh/h	816	3468	1440	702	421	1213
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	25.9	4.0	16.7	16.7	25.3	15.3
Incr Delay (d2), s/veh	6.0	0.1	4.3	8.6	5.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	1.8	9.8	10.4	5.0	3.9
LnGrp Delay(d),s/veh	31.9	4.2	21.0	25.3	30.5	15.7
LnGrp LOS	C	A	C	C	C	B
Approach Vol, veh/h		1337	1677		815	
Approach Delay, s/veh		15.9	22.4		20.3	
Approach LOS		B	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	17.4	32.6				50.0		17.5
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	26.0				46.0		16.0
Max Q Clear Time (g_c+I1), s	12.6	21.4				5.9		12.2
Green Ext Time (p_c), s	0.8	3.7				6.1		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	19.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	471	23	99	66	29	48	185	922	67	21	659	335
Future Volume (veh/h)	471	23	99	66	29	48	185	922	67	21	659	335
Number	3	8	18	7	4	14	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		0.97	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	487	0	99	66	29	48	185	922	67	21	659	335
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	608	0	270	158	56	92	124	1960	996	31	1775	1045
Arrive On Green	0.17	0.00	0.17	0.09	0.09	0.09	0.07	0.55	0.55	0.02	0.50	0.50
Sat Flow, veh/h	3548	0	1572	1774	626	1037	1774	3539	1544	1774	3539	1543
Grp Volume(v), veh/h	487	0	99	66	0	77	185	922	67	21	659	335
Grp Sat Flow(s),veh/h/ln	1774	0	1572	1774	0	1663	1774	1770	1544	1774	1770	1543
Q Serve(g_s), s	13.2	0.0	5.6	3.5	0.0	4.4	7.0	15.7	1.6	1.2	11.4	9.1
Cycle Q Clear(g_c), s	13.2	0.0	5.6	3.5	0.0	4.4	7.0	15.7	1.6	1.2	11.4	9.1
Prop In Lane	1.00		1.00	1.00		0.62	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	608	0	270	158	0	148	124	1960	996	31	1775	1045
V/C Ratio(X)	0.80	0.00	0.37	0.42	0.00	0.52	1.49	0.47	0.07	0.67	0.37	0.32
Avail Cap(c_a), veh/h	993	0	440	479	0	449	124	1960	996	71	1775	1045
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	0.90	0.90	0.90	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	0.0	36.6	43.1	0.0	43.5	46.5	13.5	6.7	48.8	15.3	6.8
Incr Delay (d2), s/veh	1.9	0.0	0.6	1.3	0.0	2.1	254.6	0.7	0.1	8.8	0.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	0.0	2.5	1.8	0.0	2.1	12.2	7.9	0.9	0.7	5.7	6.1
LnGrp Delay(d),s/veh	41.6	0.0	37.2	44.4	0.0	45.6	301.1	14.2	6.8	57.6	15.9	7.6
LnGrp LOS	D		D	D		D	F	B	A	E	B	A
Approach Vol, veh/h		586			143			1174			1015	
Approach Delay, s/veh		40.9			45.0			59.0			14.0	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.8	60.0		13.1	11.0	54.7		21.1
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.0	4.6		4.0
Max Green Setting (Gmax), s	4.0	24.2		* 27	7.0	21.2		28.0
Max Q Clear Time (g_c+I1), s	3.2	17.7		6.4	9.0	13.4		15.2
Green Ext Time (p_c), s	0.0	4.6		0.4	0.0	5.1		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	39.0
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	29.1
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	346	86	182	239	21	87	147	220	39	123	28
Future Vol, veh/h	45	346	86	182	239	21	87	147	220	39	123	28
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	45	346	86	182	239	21	87	147	220	39	123	28
Number of Lanes	1	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	3
HCM Control Delay	40	25.7	23.3	23.7
HCM LOS	E	D	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1
Vol Left, %	37%	0%	100%	0%	0%	100%	0%	21%
Vol Thru, %	63%	0%	0%	100%	0%	0%	92%	65%
Vol Right, %	0%	100%	0%	0%	100%	0%	8%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	234	220	45	346	86	182	260	190
LT Vol	87	0	45	0	0	182	0	39
Through Vol	147	0	0	346	0	0	239	123
RT Vol	0	220	0	0	86	0	21	28
Lane Flow Rate	234	220	45	346	86	182	260	190
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.613	0.521	0.12	0.874	0.2	0.494	0.664	0.53
Departure Headway (Hd)	9.438	8.521	9.616	9.097	8.37	9.781	9.198	10.036
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	381	422	372	398	427	368	393	359
Service Time	7.221	6.304	7.396	6.877	6.15	7.567	6.984	7.83
HCM Lane V/C Ratio	0.614	0.521	0.121	0.869	0.201	0.495	0.662	0.529
HCM Control Delay	26.2	20.3	13.7	50	13.3	21.8	28.5	23.7
HCM Lane LOS	D	C	B	E	B	C	D	C
HCM 95th-tile Q	3.9	2.9	0.4	8.7	0.7	2.6	4.6	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	132	32	138	119	211	48	1216	102	150	1363	21
Future Volume (veh/h)	23	132	32	138	119	211	48	1216	102	150	1363	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	140	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	23	132	0	138	119	211	48	1216	102	150	1363	0
Adj No. of Lanes	0	2	0	0	2	0	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	72	489	0	188	141	304	62	2730	167	257	2358	1055
Arrive On Green	0.23	0.23	0.00	0.23	0.23	0.23	0.03	0.56	0.56	0.14	0.67	0.00
Sat Flow, veh/h	194	2185	0	674	606	1306	1774	4776	400	1774	3539	1583
Grp Volume(v), veh/h	63	92	0	238	0	230	48	863	455	150	1363	0
Grp Sat Flow(s),veh/h/ln	683	1610	0	1159	0	1427	1774	1695	1786	1774	1770	1583
Q Serve(g_s), s	2.9	8.4	0.0	29.0	0.0	26.8	4.9	27.5	27.5	14.3	38.0	0.0
Cycle Q Clear(g_c), s	29.7	8.4	0.0	37.4	0.0	26.8	4.9	27.5	27.5	14.3	38.0	0.0
Prop In Lane	0.37		0.00	0.58		0.92	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	186	375	0	301	0	332	62	1885	1004	257	2358	1055
V/C Ratio(X)	0.34	0.25	0.00	0.79	0.00	0.69	0.78	0.46	0.45	0.58	0.58	0.00
Avail Cap(c_a), veh/h	311	514	0	427	0	456	137	1885	993	332	2358	1055
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	62.3	56.7	0.0	71.9	0.0	63.7	87.0	30.0	29.3	72.5	16.4	0.0
Incr Delay (d2), s/veh	1.1	0.3	0.0	6.3	0.0	2.7	18.9	0.8	1.5	2.1	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.5	28.4	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.8	0.0	12.1	0.0	10.8	2.7	34.1	34.2	7.2	18.9	0.0
LnGrp Delay(d),s/veh	63.3	57.0	0.0	78.2	0.0	66.4	105.8	63.3	59.3	74.6	17.5	0.0
LnGrp LOS	E	E		E		E	F	E	E	E	B	
Approach Vol, veh/h		155			468			1366			1513	
Approach Delay, s/veh		59.6			72.4			63.4			23.2	
Approach LOS		E			E			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	30.3	105.0		46.3	10.3	125.0		46.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	34.0	101.0		58.0	14.0	121.0		58.0
Max Q Clear Time (g_c+I1), s	16.3	29.5		31.7	6.9	40.0		39.4
Green Ext Time (p_c), s	0.3	13.4		0.9	0.0	16.5		2.9

Intersection Summary	
HCM 2010 Ctrl Delay	47.1
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	352	40	517	281	295	71	1032	483	277	1241	64
Future Volume (veh/h)	142	352	40	517	281	295	71	1032	483	277	1241	64
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		0.96	1.00		0.97	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	142	352	40	517	281	295	71	1032	483	277	1241	64
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	171	431	49	597	395	482	91	1643	1000	341	1813	963
Arrive On Green	0.10	0.14	0.14	0.17	0.21	0.21	0.05	0.46	0.46	0.10	0.51	0.51
Sat Flow, veh/h	1774	3191	359	3442	1863	1530	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	142	194	198	517	281	295	71	1032	483	277	1241	64
Grp Sat Flow(s),veh/h/ln	1774	1770	1781	1721	1863	1530	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	9.8	13.3	13.5	18.3	17.5	5.7	4.9	27.6	9.3	9.9	32.9	2.1
Cycle Q Clear(g_c), s	9.8	13.3	13.5	18.3	17.5	5.7	4.9	27.6	9.3	9.9	32.9	2.1
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	171	239	240	597	395	482	91	1643	1000	341	1813	963
V/C Ratio(X)	0.83	0.81	0.82	0.87	0.71	0.61	0.78	0.63	0.48	0.81	0.68	0.07
Avail Cap(c_a), veh/h	284	326	328	826	492	561	170	1643	1000	496	1813	963
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	55.5	52.5	52.6	50.2	45.7	21.4	58.6	25.3	4.1	55.1	22.9	10.0
Incr Delay (d2), s/veh	9.9	10.5	11.6	7.2	3.6	1.5	13.5	1.8	1.7	6.5	2.1	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	5.3	7.2	7.4	9.3	9.4	8.1	2.8	13.9	4.3	5.0	16.6	0.9
LnGrp Delay(d),s/veh	65.4	63.0	64.2	57.4	49.2	22.9	72.1	27.2	5.7	61.6	25.0	10.1
LnGrp LOS	E	E	E	E	D	C	E	C	A	E	C	B
Approach Vol, veh/h		534			1093			1586			1582	
Approach Delay, s/veh		64.1			46.0			22.6			30.8	
Approach LOS		E			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	16.4	62.0	25.7	20.9	10.4	68.0	16.0	30.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	58.0	30.0	23.0	12.0	64.0	20.0	33.0
Max Q Clear Time (g_c+I1), s	11.9	29.6	20.3	15.5	6.9	34.9	11.8	19.5
Green Ext Time (p_c), s	0.5	11.3	1.4	1.3	0.1	11.5	0.2	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	35.3
HCM 2010 LOS	D

Notes

User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	508	245	2042	0	0	766
Future Volume (veh/h)	508	245	2042	0	0	766
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	508	245	2042	0	0	766
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	670	542	2484	0	0	2484
Arrive On Green	0.19	0.19	0.70	0.00	0.00	0.70
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	508	245	2042	0	0	766
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	11.2	6.2	32.5	0.0	0.0	6.6
Cycle Q Clear(g_c), s	11.2	6.2	32.5	0.0	0.0	6.6
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	670	542	2484	0	0	2484
V/C Ratio(X)	0.76	0.45	0.82	0.00	0.00	0.31
Avail Cap(c_a), veh/h	1076	871	2484	0	0	2484
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.54	0.00	0.00	1.00
Uniform Delay (d), s/veh	30.4	28.5	8.4	0.0	0.0	4.5
Incr Delay (d2), s/veh	1.8	0.6	1.8	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	2.4	16.2	0.0	0.0	3.3
LnGrp Delay(d),s/veh	32.2	29.0	10.2	0.0	0.0	4.9
LnGrp LOS	C	C	B			A
Approach Vol, veh/h	753		2042			766
Approach Delay, s/veh	31.2		10.2			4.9
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		60.2				60.2		19.8
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		46.7				46.7		25.0
Max Q Clear Time (g_c+I1), s		34.5				8.6		13.2
Green Ext Time (p_c), s		10.3				6.3		2.4

Intersection Summary	
HCM 2010 Ctrl Delay	13.5
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1352	403	0	1015	881	0
Future Volume (veh/h)	1352	403	0	1015	881	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1352	403	0	1015	881	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1485	683	0	1649	1649	0
Arrive On Green	0.43	0.43	0.00	0.47	0.93	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1352	403	0	1015	881	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	29.4	15.5	0.0	17.2	2.7	0.0
Cycle Q Clear(g_c), s	29.4	15.5	0.0	17.2	2.7	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1485	683	0	1649	1649	0
V/C Ratio(X)	0.91	0.59	0.00	0.62	0.53	0.00
Avail Cap(c_a), veh/h	1717	790	0	1649	1649	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.89	0.00
Uniform Delay (d), s/veh	21.3	17.3	0.0	16.0	1.5	0.0
Incr Delay (d2), s/veh	6.5	0.4	0.0	1.7	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.2	6.8	0.0	8.7	1.2	0.0
LnGrp Delay(d),s/veh	27.7	17.7	0.0	17.7	2.7	0.0
LnGrp LOS	C	B		B	A	
Approach Vol, veh/h	1755			1015	881	
Approach Delay, s/veh	25.4			17.7	2.7	
Approach LOS	C			B	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		41.4		38.6		41.4		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		31.9		39.9		31.9		
Max Q Clear Time (g_c+I1), s		19.2		31.4		4.7		
Green Ext Time (p_c), s		4.2		3.1		4.6		

Intersection Summary	
HCM 2010 Ctrl Delay	17.8
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	12.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	411	63	48	271	22	43	63	62	41	74	29
Future Vol, veh/h	59	411	63	48	271	22	43	63	62	41	74	29
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	411	63	48	271	22	43	63	62	41	74	29
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	13.6	11.8	11.8	11.6
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	26%	22%	0%	26%	0%	28%
Vol Thru, %	38%	78%	77%	74%	86%	51%
Vol Right, %	37%	0%	23%	0%	14%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	168	265	269	184	158	144
LT Vol	43	59	0	48	0	41
Through Vol	63	206	206	136	136	74
RT Vol	62	0	63	0	22	29
Lane Flow Rate	168	264	268	184	158	144
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.29	0.453	0.439	0.328	0.271	0.255
Departure Headway (Hd)	6.21	6.165	5.885	6.43	6.197	6.376
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	576	582	609	556	576	560
Service Time	4.284	3.925	3.645	4.197	3.964	4.453
HCM Lane V/C Ratio	0.292	0.454	0.44	0.331	0.274	0.257
HCM Control Delay	11.8	14	13.2	12.3	11.3	11.6
HCM Lane LOS	B	B	B	B	B	B
HCM 95th-tile Q	1.2	2.3	2.2	1.4	1.1	1

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	79	631	18	20	597	48	5	2	17	30	0	75
Future Vol, veh/h	79	631	18	20	597	48	5	2	17	30	0	75
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	79	631	18	20	597	48	5	2	17	30	0	75

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	676	0	0	665	0	0	1153	1530	366	1192	1515	354
Stage 1	-	-	-	-	-	-	814	814	-	692	692	-
Stage 2	-	-	-	-	-	-	339	716	-	500	823	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	911	-	-	920	-	-	152	116	631	143	118	642
Stage 1	-	-	-	-	-	-	338	390	-	400	443	-
Stage 2	-	-	-	-	-	-	649	432	-	521	386	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	887	-	-	908	-	-	115	93	610	113	94	625
Mov Cap-2 Maneuver	-	-	-	-	-	-	115	93	-	113	94	-
Stage 1	-	-	-	-	-	-	287	331	-	335	416	-
Stage 2	-	-	-	-	-	-	551	406	-	424	328	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.4	20.4	26.3
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	258	887	-	-	908	-	-	272
HCM Lane V/C Ratio	0.093	0.089	-	-	0.022	-	-	0.386
HCM Control Delay (s)	20.4	9.5	0.5	-	9.1	0.1	-	26.3
HCM Lane LOS	C	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.3	0.3	-	-	0.1	-	-	1.7

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	70	11	8	86	2	14	2	14	5	0	1
Future Vol, veh/h	1	70	11	8	86	2	14	2	14	5	0	1
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	70	11	8	86	2	14	2	14	5	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	92	0	0	82	0	0	184	187	78	194	191	92
Stage 1	-	-	-	-	-	-	79	79	-	107	107	-
Stage 2	-	-	-	-	-	-	105	108	-	87	84	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1503	-	-	1515	-	-	777	708	983	765	704	965
Stage 1	-	-	-	-	-	-	930	829	-	898	807	-
Stage 2	-	-	-	-	-	-	901	806	-	921	825	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1498	-	-	1514	-	-	771	700	981	745	696	961
Mov Cap-2 Maneuver	-	-	-	-	-	-	771	700	-	745	696	-
Stage 1	-	-	-	-	-	-	928	827	-	894	800	-
Stage 2	-	-	-	-	-	-	894	799	-	904	823	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.6	9.4	9.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	850	1498	-	-	1514	-	-	774
HCM Lane V/C Ratio	0.035	0.001	-	-	0.005	-	-	0.008
HCM Control Delay (s)	9.4	7.4	0	-	7.4	0	-	9.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	37	6	9	54	9	16	14	18	5	31	7
Future Vol, veh/h	7	37	6	9	54	9	16	14	18	5	31	7
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	37	6	9	54	9	16	14	18	5	31	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	65	0	0	45	0	0	153	139	43	150	138	62
Stage 1	-	-	-	-	-	-	56	56	-	79	79	-
Stage 2	-	-	-	-	-	-	97	83	-	71	59	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1537	-	-	1563	-	-	814	752	1027	818	753	1003
Stage 1	-	-	-	-	-	-	956	848	-	930	829	-
Stage 2	-	-	-	-	-	-	910	826	-	939	846	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1534	-	-	1560	-	-	774	741	1024	784	742	1000
Mov Cap-2 Maneuver	-	-	-	-	-	-	774	741	-	784	742	-
Stage 1	-	-	-	-	-	-	949	842	-	923	822	-
Stage 2	-	-	-	-	-	-	864	819	-	902	840	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.9	9.5	9.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	840	1534	-	-	1560	-	-	780
HCM Lane V/C Ratio	0.057	0.005	-	-	0.006	-	-	0.055
HCM Control Delay (s)	9.5	7.4	0	-	7.3	0	-	9.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	43	2	13	52	2	7	11	13	1	3	5
Future Vol, veh/h	1	43	2	13	52	2	7	11	13	1	3	5
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	43	2	13	52	2	7	11	13	1	3	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	55	0	0	45	0	0	130	127	46	140	127	55
Stage 1	-	-	-	-	-	-	46	46	-	80	80	-
Stage 2	-	-	-	-	-	-	84	81	-	60	47	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1550	-	-	1563	-	-	843	764	1023	830	764	1012
Stage 1	-	-	-	-	-	-	968	857	-	929	828	-
Stage 2	-	-	-	-	-	-	924	828	-	951	856	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1549	-	-	1563	-	-	830	756	1021	802	756	1010
Mov Cap-2 Maneuver	-	-	-	-	-	-	830	756	-	802	756	-
Stage 1	-	-	-	-	-	-	967	856	-	927	820	-
Stage 2	-	-	-	-	-	-	907	820	-	924	855	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.4	9.3	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	868	1549	-	-	1563	-	-	885
HCM Lane V/C Ratio	0.036	0.001	-	-	0.008	-	-	0.01
HCM Control Delay (s)	9.3	7.3	0	-	7.3	0	-	9.1
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	43	0	18	42	3	36
Future Vol, veh/h	43	0	18	42	3	36
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	0	18	42	3	36

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	46	0	125	46
Stage 1	-	-	-	-	46	-
Stage 2	-	-	-	-	79	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1562	-	891	1023
Stage 1	-	-	-	-	976	-
Stage 2	-	-	-	-	957	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1558	-	878	1020
Mov Cap-2 Maneuver	-	-	-	-	878	-
Stage 1	-	-	-	-	974	-
Stage 2	-	-	-	-	945	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1007	-	-	1558	-
HCM Lane V/C Ratio	0.039	-	-	0.012	-
HCM Control Delay (s)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	47	8	5	62	4	2	4	3	2	3	35
Future Vol, veh/h	35	47	8	5	62	4	2	4	3	2	3	35
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	47	8	5	62	4	2	4	3	2	3	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	68	0	0	56	0	0	216	200	52	201	202	67
Stage 1	-	-	-	-	-	-	122	122	-	76	76	-
Stage 2	-	-	-	-	-	-	94	78	-	125	126	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1533	-	-	1549	-	-	740	696	1016	757	694	997
Stage 1	-	-	-	-	-	-	882	795	-	933	832	-
Stage 2	-	-	-	-	-	-	913	830	-	879	792	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1530	-	-	1548	-	-	696	675	1015	735	673	995
Mov Cap-2 Maneuver	-	-	-	-	-	-	696	675	-	735	673	-
Stage 1	-	-	-	-	-	-	860	775	-	909	828	-
Stage 2	-	-	-	-	-	-	874	826	-	851	772	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.9	0.5	9.8	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	766	1530	-	-	1548	-	-	944
HCM Lane V/C Ratio	0.012	0.023	-	-	0.003	-	-	0.042
HCM Control Delay (s)	9.8	7.4	0	-	7.3	0	-	9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	18	6	21	38	49	5	107	15	73	170	43
Future Vol, veh/h	31	18	6	21	38	49	5	107	15	73	170	43
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	18	6	21	38	49	5	107	15	73	170	43
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	8.5	8.5	8.5	9.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	56%	19%	26%
Vol Thru, %	84%	33%	35%	59%
Vol Right, %	12%	11%	45%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	127	55	108	286
LT Vol	5	31	21	73
Through Vol	107	18	38	170
RT Vol	15	6	49	43
Lane Flow Rate	127	55	108	286
Geometry Grp	1	1	1	1
Degree of Util (X)	0.162	0.077	0.141	0.352
Departure Headway (Hd)	4.585	5.062	4.713	4.436
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	781	706	759	809
Service Time	2.621	3.107	2.752	2.467
HCM Lane V/C Ratio	0.163	0.078	0.142	0.354
HCM Control Delay	8.5	8.5	8.5	9.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.2	0.5	1.6

Intersection	
Intersection Delay, s/veh	20.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	89	48	32	29	32	98	13	207	49	92	363	92
Future Vol, veh/h	89	48	32	29	32	98	13	207	49	92	363	92
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	89	48	32	29	32	98	13	207	49	92	363	92
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	12.6	11.8	13.4	28.1
HCM LOS	B	B	B	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	53%	18%	17%
Vol Thru, %	77%	28%	20%	66%
Vol Right, %	18%	19%	62%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	269	169	159	547
LT Vol	13	89	29	92
Through Vol	207	48	32	363
RT Vol	49	32	98	92
Lane Flow Rate	269	169	159	547
Geometry Grp	1	1	1	1
Degree of Util (X)	0.44	0.31	0.279	0.816
Departure Headway (Hd)	5.885	6.597	6.315	5.477
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	616	546	571	667
Service Time	3.885	4.622	4.342	3.477
HCM Lane V/C Ratio	0.437	0.31	0.278	0.82
HCM Control Delay	13.4	12.6	11.8	28.1
HCM Lane LOS	B	B	B	D
HCM 95th-tile Q	2.2	1.3	1.1	8.5

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	11	86	1	11	0	130	3	4	0	0	0
Future Vol, veh/h	2	11	86	1	11	0	130	3	4	0	0	0
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	11	86	1	11	0	130	3	4	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	11	0	0	98	0	0	72	72	55	75	115	11
Stage 1	-	-	-	-	-	-	59	59	-	13	13	-
Stage 2	-	-	-	-	-	-	13	13	-	62	102	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1608	-	-	1495	-	-	919	818	1012	915	775	1070
Stage 1	-	-	-	-	-	-	953	846	-	1007	885	-
Stage 2	-	-	-	-	-	-	1007	885	-	949	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1608	-	-	1494	-	-	917	816	1011	908	773	1070
Mov Cap-2 Maneuver	-	-	-	-	-	-	917	816	-	908	773	-
Stage 1	-	-	-	-	-	-	951	844	-	1006	884	-
Stage 2	-	-	-	-	-	-	1006	884	-	941	809	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.6	9.6	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	917	1608	-	-	1494	-	-	-
HCM Lane V/C Ratio	0.149	0.001	-	-	0.001	-	-	-
HCM Control Delay (s)	9.6	7.2	0	-	7.4	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	47	23	12	850	630	127
Future Vol, veh/h	47	23	12	850	630	127
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	23	12	850	630	127

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1507	633	760	0	-	0
Stage 1	633	-	-	-	-	-
Stage 2	874	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	133	480	852	-	-	-
Stage 1	529	-	-	-	-	-
Stage 2	408	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	129	479	850	-	-	-
Mov Cap-2 Maneuver	325	-	-	-	-	-
Stage 1	514	-	-	-	-	-
Stage 2	407	-	-	-	-	-

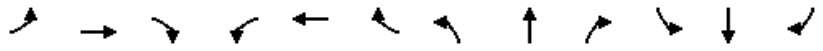
Approach	EB	NB	SB
HCM Control Delay, s	17.3	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	850	-	363	-	-
HCM Lane V/C Ratio	0.014	-	0.193	-	-
HCM Control Delay (s)	9.3	0	17.3	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.7	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	444	12	350	425	0	866
Future Volume (veh/h)	444	12	350	425	0	866
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	444	12	350	0	0	866
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	529	14	1478	0	0	1478
Arrive On Green	0.31	0.31	0.42	0.00	0.00	0.42
Sat Flow, veh/h	1718	46	3725	0	0	3725
Grp Volume(v), veh/h	457	0	350	0	0	866
Grp Sat Flow(s),veh/h/ln	1769	0	1770	0	0	1770
Q Serve(g_s), s	6.6	0.0	1.7	0.0	0.0	5.2
Cycle Q Clear(g_c), s	6.6	0.0	1.7	0.0	0.0	5.2
Prop In Lane	0.97	0.03		0.00	0.00	
Lane Grp Cap(c), veh/h	544	0	1478	0	0	1478
V/C Ratio(X)	0.84	0.00	0.24	0.00	0.00	0.59
Avail Cap(c_a), veh/h	972	0	2269	0	0	2269
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	8.8	0.0	5.1	0.0	0.0	6.1
Incr Delay (d2), s/veh	1.4	0.0	0.1	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.8	0.0	0.0	2.5
LnGrp Delay(d),s/veh	10.2	0.0	5.2	0.0	0.0	6.6
LnGrp LOS	B		A			A
Approach Vol, veh/h	457		350			866
Approach Delay, s/veh	10.2		5.2			6.6
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		15.9		11.4		15.9		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		17.5		15.0		17.5		
Max Q Clear Time (g_c+I1), s		3.7		8.6		7.2		
Green Ext Time (p_c), s		2.2		0.1		4.3		

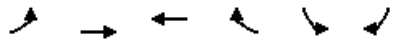
Intersection Summary	
HCM 2010 Ctrl Delay	7.3
HCM 2010 LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	351	490	17	245	69	122	215	17	65	350	16
Future Volume (veh/h)	39	351	490	17	245	69	122	215	17	65	350	16
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.91	0.99		0.91	1.00		0.96	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	39	351	490	17	245	69	122	215	17	65	350	16
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	136	1130	903	74	913	247	154	271	354	78	418	411
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.23	0.23	0.23	0.27	0.27	0.27
Sat Flow, veh/h	242	3038	1439	85	2454	665	662	1167	1527	289	1559	1532
Grp Volume(v), veh/h	200	190	490	175	0	156	337	0	17	415	0	16
Grp Sat Flow(s),veh/h/ln	1669	1610	1439	1702	0	1502	1830	0	1527	1848	0	1532
Q Serve(g_s), s	0.0	7.9	19.2	0.0	0.0	6.8	16.3	0.0	0.8	19.9	0.0	0.7
Cycle Q Clear(g_c), s	7.1	7.9	19.2	6.1	0.0	6.8	16.3	0.0	0.8	19.9	0.0	0.7
Prop In Lane	0.20		1.00	0.10		0.44	0.36		1.00	0.16		1.00
Lane Grp Cap(c), veh/h	667	599	903	675	0	559	425	0	354	496	0	411
V/C Ratio(X)	0.30	0.32	0.54	0.26	0.00	0.28	0.79	0.00	0.05	0.84	0.00	0.04
Avail Cap(c_a), veh/h	667	599	903	675	0	559	739	0	617	884	0	733
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.8	21.0	11.2	20.5	0.0	20.7	34.0	0.0	28.0	32.5	0.0	25.4
Incr Delay (d2), s/veh	1.2	1.4	2.3	0.9	0.0	1.2	3.4	0.0	0.1	3.8	0.0	0.0
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	3.9	3.7	12.7	3.3	0.0	3.0	8.6	0.0	0.4	10.7	0.0	0.3
LnGrp Delay(d),s/veh	21.9	22.4	13.5	21.4	0.0	21.9	37.4	0.0	28.1	36.3	0.0	25.5
LnGrp LOS	C	C	B	C		C	D		C	D		C
Approach Vol, veh/h		880			331			354			431	
Approach Delay, s/veh		17.4			21.6			37.0			35.9	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		39.0		25.8		39.0		29.2
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		35.0		38.0		35.0		45.0
Max Q Clear Time (g_c+I1), s		21.2		18.3		8.8		21.9
Green Ext Time (p_c), s		3.9		2.1		2.2		2.8

Intersection Summary	
HCM 2010 Ctrl Delay	25.5
HCM 2010 LOS	C



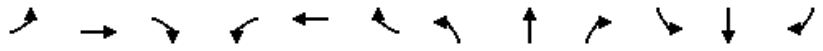
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	337	374	213	516	461	238
Future Volume (veh/h)	337	374	213	516	461	238
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	337	374	213	516	461	238
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	371	1213	764	1076	500	777
Arrive On Green	0.21	0.65	0.41	0.41	0.28	0.28
Sat Flow, veh/h	1774	1863	1863	1535	1774	1583
Grp Volume(v), veh/h	337	374	213	516	461	238
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1535	1774	1583
Q Serve(g_s), s	23.3	11.0	9.6	19.6	31.7	11.3
Cycle Q Clear(g_c), s	23.3	11.0	9.6	19.6	31.7	11.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	371	1213	764	1076	500	777
V/C Ratio(X)	0.91	0.31	0.28	0.48	0.92	0.31
Avail Cap(c_a), veh/h	636	1213	764	1076	845	1085
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	48.5	9.5	24.6	9.0	43.8	19.2
Incr Delay (d2), s/veh	10.1	0.7	0.9	1.5	8.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.5	5.8	5.1	16.4	16.6	12.5
LnGrp Delay(d),s/veh	58.6	10.2	25.6	10.5	52.0	19.3
LnGrp LOS	E	B	C	B	D	B
Approach Vol, veh/h		711	729		699	
Approach Delay, s/veh		33.2	14.9		40.9	
Approach LOS		C	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		86.0		39.6	30.3	55.7		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 82		* 60	45.0	* 33		
Max Q Clear Time (g_c+I1), s		13.0		33.7	25.3	21.6		
Green Ext Time (p_c), s		1.6		1.7	1.0	1.6		

Intersection Summary	
HCM 2010 Ctrl Delay	29.5
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	60	0	54	14	195	0	763	62	232	761	96
Future Volume (veh/h)	153	60	0	54	14	195	0	763	62	232	761	96
Number	7	4	14	3	8	18	1	6	16	5	2	12
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		0.98	1.00		0.98	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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	153	60	0	54	14	195	0	763	62	232	761	96
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	249	85	0	323	75	886	0	893	73	608	2101	265
Arrive On Green	0.22	0.22	0.00	0.22	0.22	0.22	0.00	0.27	0.27	0.34	0.66	0.66
Sat Flow, veh/h	780	386	0	1099	340	1555	0	3401	269	1774	3163	399
Grp Volume(v), veh/h	213	0	0	68	0	195	0	408	417	232	426	431
Grp Sat Flow(s),veh/h/ln	1165	0	0	1439	0	1555	0	1770	1807	1774	1770	1792
Q Serve(g_s), s	11.5	0.0	0.0	0.0	0.0	0.0	0.0	17.5	17.5	7.9	8.5	8.5
Cycle Q Clear(g_c), s	14.4	0.0	0.0	3.0	0.0	0.0	0.0	17.5	17.5	7.9	8.5	8.5
Prop In Lane	0.72		0.00	0.79		1.00	0.00		0.15	1.00		0.22
Lane Grp Cap(c), veh/h	334	0	0	398	0	886	0	478	488	608	1176	1190
V/C Ratio(X)	0.64	0.00	0.00	0.17	0.00	0.22	0.00	0.85	0.85	0.38	0.36	0.36
Avail Cap(c_a), veh/h	488	0	0	566	0	1070	0	535	547	608	1176	1190
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	0.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	30.6	0.0	0.0	25.4	0.0	8.7	0.0	27.7	27.7	19.9	5.9	5.9
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.1	0.0	0.1	0.0	17.4	17.1	0.1	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	0.0	0.0	1.2	0.0	2.1	0.0	10.8	11.0	3.9	4.4	4.4
LnGrp Delay(d),s/veh	32.1	0.0	0.0	25.5	0.0	8.8	0.0	45.1	44.9	20.0	6.7	6.7
LnGrp LOS	C			C		A		D	D	B	A	A
Approach Vol, veh/h		213			263			825			1089	
Approach Delay, s/veh		32.1			13.1			45.0			9.5	
Approach LOS		C			B			D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		57.7		22.3	32.0	25.7		22.3
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		43.7		27.1	15.9	* 24		27.1
Max Q Clear Time (g_c+I1), s		10.5		16.4	9.9	19.5		5.0
Green Ext Time (p_c), s		6.4		0.8	0.2	2.1		0.8

Intersection Summary		
HCM 2010 Ctrl Delay		24.2
HCM 2010 LOS		C

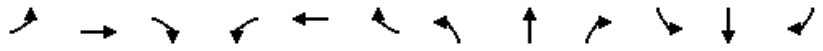
Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	566	1670	595	176	524	778
Future Volume (veh/h)	566	1670	595	176	524	778
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	566	1670	595	176	524	778
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	680	2746	1120	322	625	1531
Arrive On Green	0.20	0.54	0.29	0.29	0.35	0.35
Sat Flow, veh/h	3442	5253	4048	1117	1774	2787
Grp Volume(v), veh/h	566	1670	518	253	524	778
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1608	1774	1393
Q Serve(g_s), s	11.7	16.7	9.5	9.9	20.1	12.9
Cycle Q Clear(g_c), s	11.7	16.7	9.5	9.9	20.1	12.9
Prop In Lane	1.00			0.69	1.00	1.00
Lane Grp Cap(c), veh/h	680	2746	978	464	625	1531
V/C Ratio(X)	0.83	0.61	0.53	0.55	0.84	0.51
Avail Cap(c_a), veh/h	836	2746	978	464	766	1754
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	28.6	11.7	22.1	22.3	22.1	10.4
Incr Delay (d2), s/veh	6.0	1.0	2.0	4.6	6.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	8.0	4.7	4.9	11.0	5.0
LnGrp Delay(d),s/veh	34.6	12.7	24.2	26.8	29.0	10.7
LnGrp LOS	C	B	C	C	C	B
Approach Vol, veh/h		2236	771		1302	
Approach Delay, s/veh		18.2	25.0		18.1	
Approach LOS		B	C		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	18.6	25.4				44.0		30.1
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	14.6	18.0				40.0		32.0
Max Q Clear Time (g_c+I1), s	13.7	11.9				18.7		22.1
Green Ext Time (p_c), s	0.9	2.5				12.7		4.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.4
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	464	47	169	32	17	21	112	811	96	19	946	426
Future Volume (veh/h)	464	47	169	32	17	21	112	811	96	19	946	426
Number	3	8	18	7	4	14	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		0.98	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	498	0	169	32	17	21	112	811	96	19	946	426
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	570	0	252	103	44	54	590	2342	1115	25	1202	777
Arrive On Green	0.16	0.00	0.16	0.06	0.06	0.06	0.67	1.00	1.00	0.01	0.34	0.34
Sat Flow, veh/h	3548	0	1572	1774	750	926	1774	3539	1545	1774	3539	1539
Grp Volume(v), veh/h	498	0	169	32	0	38	112	811	96	19	946	426
Grp Sat Flow(s),veh/h/ln	1774	0	1572	1774	0	1676	1774	1770	1545	1774	1770	1539
Q Serve(g_s), s	21.9	0.0	16.2	2.8	0.0	3.5	3.9	0.0	0.0	1.7	38.5	30.6
Cycle Q Clear(g_c), s	21.9	0.0	16.2	2.8	0.0	3.5	3.9	0.0	0.0	1.7	38.5	30.6
Prop In Lane	1.00		1.00	1.00		0.55	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	570	0	252	103	0	98	590	2342	1115	25	1202	777
V/C Ratio(X)	0.87	0.00	0.67	0.31	0.00	0.39	0.19	0.35	0.09	0.75	0.79	0.55
Avail Cap(c_a), veh/h	843	0	373	308	0	291	590	2342	1115	67	1336	835
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.87	0.87	0.87	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.6	0.0	63.2	72.3	0.0	72.6	18.5	0.0	0.0	78.6	47.6	27.6
Incr Delay (d2), s/veh	6.2	0.0	2.3	1.2	0.0	1.9	0.1	0.4	0.1	15.2	5.2	2.8
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	11.3	0.0	7.2	1.4	0.0	1.7	1.9	0.1	0.0	0.9	19.7	17.8
LnGrp Delay(d),s/veh	71.7	0.0	65.4	73.5	0.0	74.5	18.6	0.4	0.1	93.8	52.9	30.4
LnGrp LOS	E		E	E		E	B	A	A	F	D	C
Approach Vol, veh/h		667			70			1019			1391	
Approach Delay, s/veh		70.1			74.0			2.3			46.5	
Approach LOS		E			E			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.3	110.5		13.5	57.8	58.9		29.7
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.6	* 4.6		4.0
Max Green Setting (Gmax), s	6.3	71.4		* 28	17.0	* 60		38.0
Max Q Clear Time (g_c+I1), s	13.7	2.0		5.5	5.9	40.5		23.9
Green Ext Time (p_c), s	0.0	16.5		0.2	0.1	13.8		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	37.8
HCM 2010 LOS	D

Notes

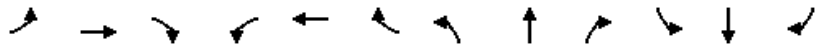
User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	30.9
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	267	68	205	305	33	73	118	214	37	159	55
Future Vol, veh/h	34	267	68	205	305	33	73	118	214	37	159	55
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	267	68	205	305	33	73	118	214	37	159	55
Number of Lanes	1	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	3
HCM Control Delay	28.1	38.9	22.1	32
HCM LOS	D	E	C	D

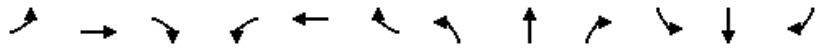
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1
Vol Left, %	38%	0%	100%	0%	0%	100%	0%	15%
Vol Thru, %	62%	0%	0%	100%	0%	0%	90%	63%
Vol Right, %	0%	100%	0%	0%	100%	0%	10%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	191	214	34	267	68	205	338	251
LT Vol	73	0	34	0	0	205	0	37
Through Vol	118	0	0	267	0	0	305	159
RT Vol	0	214	0	0	68	0	33	55
Lane Flow Rate	191	214	34	267	68	205	338	251
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.522	0.53	0.096	0.718	0.169	0.556	0.86	0.689
Departure Headway (Hd)	9.842	8.917	10.204	9.682	8.952	9.759	9.163	9.886
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	367	404	352	374	401	371	395	366
Service Time	7.58	6.655	7.942	7.42	6.69	7.494	6.898	7.642
HCM Lane V/C Ratio	0.52	0.53	0.097	0.714	0.17	0.553	0.856	0.686
HCM Control Delay	22.9	21.3	14	33.6	13.5	24.1	47.9	32
HCM Lane LOS	C	C	B	D	B	C	E	D
HCM 95th-tile Q	2.9	3	0.3	5.4	0.6	3.2	8.3	4.9



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	139	23	229	163	179	57	1474	102	172	1298	49
Future Volume (veh/h)	4	139	23	229	163	179	57	1474	102	172	1298	49
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	3	180	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	4	139	0	229	163	179	57	1474	102	172	1298	0
Adj No. of Lanes	0	2	0	0	2	0	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	30	856	0	292	213	249	82	2504	87	292	2137	956
Arrive On Green	0.27	0.27	0.00	0.27	0.27	0.27	0.04	0.52	0.52	0.15	0.62	0.00
Sat Flow, veh/h	34	3284	0	950	791	925	1774	4853	336	1774	3539	1583
Grp Volume(v), veh/h	74	69	0	279	0	292	57	1030	546	172	1298	0
Grp Sat Flow(s),veh/h/ln	1623	1610	0	1158	0	1507	1774	1695	1799	1774	1770	1583
Q Serve(g_s), s	0.2	5.9	0.0	36.6	0.0	31.3	5.7	37.8	37.8	16.4	39.1	0.0
Cycle Q Clear(g_c), s	31.5	5.9	0.0	42.4	0.0	31.3	5.7	37.8	37.8	16.4	39.1	0.0
Prop In Lane	0.05		0.00	0.82		0.61	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	452	434	0	347	0	406	82	1675	908	292	2137	956
V/C Ratio(X)	0.16	0.16	0.00	0.80	0.00	0.72	0.69	0.61	0.60	0.59	0.61	0.00
Avail Cap(c_a), veh/h	647	604	0	488	0	565	149	1746	927	338	2200	984
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	51.2	51.3	0.0	68.0	0.0	60.9	85.2	44.2	42.5	71.0	22.9	0.0
Incr Delay (d2), s/veh	0.2	0.2	0.0	6.5	0.0	2.7	10.0	1.7	2.9	2.0	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	31.4	96.0	78.9	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.7	0.0	14.4	0.0	13.8	4.4	59.8	58.4	8.3	21.0	0.0
LnGrp Delay(d),s/veh	51.4	51.5	0.0	74.5	0.0	63.5	126.6	141.9	124.4	73.0	24.2	0.0
LnGrp LOS	D	D		E		E	F	F	F	E	C	
Approach Vol, veh/h		143			571			1633			1470	
Approach Delay, s/veh		51.4			68.9			135.5			29.9	
Approach LOS		D			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	30.3	96.0		52.3	11.3	115.0		52.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	24.3	92.0		67.0	15.0	111.0		67.0
Max Q Clear Time (g_c+I1), s	18.4	39.8		33.5	7.7	41.1		44.4
Green Ext Time (p_c), s	0.4	17.3		0.8	0.0	14.8		3.9

Intersection Summary	
HCM 2010 Ctrl Delay	81.7
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	298	57	417	261	165	67	1504	470	240	1289	63
Future Volume (veh/h)	134	298	57	417	261	165	67	1504	470	240	1289	63
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		0.95	1.00		0.96	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	134	298	57	417	261	165	67	1504	470	240	1289	63
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	156	353	66	474	316	390	85	1978	1092	286	2104	1081
Arrive On Green	0.09	0.12	0.12	0.14	0.17	0.17	0.05	0.56	0.56	0.08	0.59	0.59
Sat Flow, veh/h	1774	2949	554	3442	1863	1522	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	134	177	178	417	261	165	67	1504	470	240	1289	63
Grp Sat Flow(s),veh/h/ln	1774	1770	1733	1721	1863	1522	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	11.9	15.6	16.1	18.9	21.6	14.5	6.0	51.9	20.8	10.9	37.0	2.1
Cycle Q Clear(g_c), s	11.9	15.6	16.1	18.9	21.6	14.5	6.0	51.9	20.8	10.9	37.0	2.1
Prop In Lane	1.00		0.32	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	156	212	208	474	316	390	85	1978	1092	286	2104	1081
V/C Ratio(X)	0.86	0.83	0.86	0.88	0.83	0.42	0.79	0.76	0.43	0.84	0.61	0.06
Avail Cap(c_a), veh/h	223	267	261	627	386	447	145	1978	1092	367	2104	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	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	71.6	68.5	68.8	67.4	63.9	49.9	75.1	26.9	10.5	71.9	20.6	8.4
Incr Delay (d2), s/veh	19.9	16.5	20.0	11.0	11.7	0.7	15.2	2.8	1.2	12.7	1.3	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	6.7	8.6	8.9	9.8	12.1	6.2	3.3	26.0	9.3	5.7	18.5	1.0
LnGrp Delay(d),s/veh	91.5	85.0	88.8	78.4	75.5	50.6	90.2	29.8	11.7	84.6	21.9	8.5
LnGrp LOS	F	F	F	E	E	D	F	C	B	F	C	A
Approach Vol, veh/h		489			843			2041			1592	
Approach Delay, s/veh		88.2			72.1			27.6			30.9	
Approach LOS		F			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	17.2	93.0	25.9	23.1	11.6	98.7	18.0	31.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	89.0	29.0	24.0	13.0	93.0	20.0	33.0
Max Q Clear Time (g_c+I1), s	13.9	53.9	20.9	18.1	8.0	39.0	13.9	23.6
Green Ext Time (p_c), s	0.3	19.1	1.0	1.0	0.0	14.6	0.2	1.5

Intersection Summary	
HCM 2010 Ctrl Delay	42.2
HCM 2010 LOS	D

Notes

User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	745	586	1728	0	0	971
Future Volume (veh/h)	745	586	1728	0	0	971
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	745	586	1728	0	0	971
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	921	746	2224	0	0	2224
Arrive On Green	0.27	0.27	0.63	0.00	0.00	0.63
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	745	586	1728	0	0	971
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	16.2	15.6	28.4	0.0	0.0	11.2
Cycle Q Clear(g_c), s	16.2	15.6	28.4	0.0	0.0	11.2
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	921	746	2224	0	0	2224
V/C Ratio(X)	0.81	0.79	0.78	0.00	0.00	0.44
Avail Cap(c_a), veh/h	1076	871	2224	0	0	2224
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.57	0.00	0.00	1.00
Uniform Delay (d), s/veh	27.4	27.2	10.8	0.0	0.0	7.6
Incr Delay (d2), s/veh	4.1	4.1	1.6	0.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	6.4	14.2	0.0	0.0	5.6
LnGrp Delay(d),s/veh	31.5	31.3	12.4	0.0	0.0	8.2
LnGrp LOS	C	C	B			A
Approach Vol, veh/h	1331		1728			971
Approach Delay, s/veh	31.4		12.4			8.2
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		54.4				54.4		25.6
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		46.7				46.7		25.0
Max Q Clear Time (g_c+I1), s		30.4				13.2		18.2
Green Ext Time (p_c), s		11.7				8.4		3.2

Intersection Summary	
HCM 2010 Ctrl Delay	17.6
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1249	450	0	966	1513	0
Future Volume (veh/h)	1249	450	0	966	1513	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1249	450	0	966	1513	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1346	619	0	1792	1792	0
Arrive On Green	0.39	0.39	0.00	0.51	1.00	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1249	450	0	966	1513	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	27.7	19.3	0.0	14.8	0.0	0.0
Cycle Q Clear(g_c), s	27.7	19.3	0.0	14.8	0.0	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1346	619	0	1792	1792	0
V/C Ratio(X)	0.93	0.73	0.00	0.54	0.84	0.00
Avail Cap(c_a), veh/h	1415	651	0	1792	1792	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.78	0.00
Uniform Delay (d), s/veh	23.3	20.7	0.0	13.4	0.0	0.0
Incr Delay (d2), s/veh	10.2	3.2	0.0	1.2	4.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.1	8.9	0.0	7.4	1.0	0.0
LnGrp Delay(d),s/veh	33.5	24.0	0.0	14.6	4.0	0.0
LnGrp LOS	C	C		B	A	
Approach Vol, veh/h	1699			966	1513	
Approach Delay, s/veh	31.0			14.6	4.0	
Approach LOS	C			B	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		44.6		35.4		44.6		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		38.9		32.9		38.9		
Max Q Clear Time (g_c+I1), s		16.8		29.7		2.0		
Green Ext Time (p_c), s		4.9		1.6		10.5		

Intersection Summary	
HCM 2010 Ctrl Delay	17.4
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	12.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	287	40	74	347	29	52	89	63	21	101	58
Future Vol, veh/h	27	287	40	74	347	29	52	89	63	21	101	58
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	27	287	40	74	347	29	52	89	63	21	101	58
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	12.2	13.5	12.8	12.3
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	25%	16%	0%	30%	0%	12%
Vol Thru, %	44%	84%	78%	70%	86%	56%
Vol Right, %	31%	0%	22%	0%	14%	32%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	204	171	184	248	203	180
LT Vol	52	27	0	74	0	21
Through Vol	89	144	144	174	174	101
RT Vol	63	0	40	0	29	58
Lane Flow Rate	204	170	184	248	202	180
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.355	0.31	0.322	0.445	0.35	0.315
Departure Headway (Hd)	6.271	6.549	6.312	6.477	6.223	6.299
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	569	546	565	552	575	565
Service Time	4.363	4.334	4.098	4.259	4.004	4.394
HCM Lane V/C Ratio	0.359	0.311	0.326	0.449	0.351	0.319
HCM Control Delay	12.8	12.3	12.1	14.4	12.4	12.3
HCM Lane LOS	B	B	B	B	B	B
HCM 95th-tile Q	1.6	1.3	1.4	2.3	1.6	1.3

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	58	773	7	8	357	38	9	6	35	93	2	84
Future Vol, veh/h	58	773	7	8	357	38	9	6	35	93	2	84
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	773	7	8	357	38	9	6	35	93	2	84

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	426	0	0	796	0	0	1105	1351	431	954	1335	229
Stage 1	-	-	-	-	-	-	909	909	-	423	423	-
Stage 2	-	-	-	-	-	-	196	442	-	531	912	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1130	-	-	822	-	-	165	149	573	213	152	774
Stage 1	-	-	-	-	-	-	296	352	-	579	586	-
Stage 2	-	-	-	-	-	-	787	575	-	500	351	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1101	-	-	811	-	-	132	128	554	169	131	754
Mov Cap-2 Maneuver	-	-	-	-	-	-	132	128	-	169	131	-
Stage 1	-	-	-	-	-	-	265	315	-	512	563	-
Stage 2	-	-	-	-	-	-	688	553	-	408	314	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0.3	20.6	43.2
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	281	1101	-	-	811	-	-	264
HCM Lane V/C Ratio	0.178	0.053	-	-	0.01	-	-	0.678
HCM Control Delay (s)	20.6	8.5	0.3	-	9.5	0.1	-	43.2
HCM Lane LOS	C	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	0.6	0.2	-	-	0	-	-	4.5

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	89	25	63	138	1	11	1	69	4	5	0
Future Vol, veh/h	0	89	25	63	138	1	11	1	69	4	5	0
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	89	25	63	138	1	11	1	69	4	5	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	143	0	0	115	0	0	371	372	104	407	384	144
Stage 1	-	-	-	-	-	-	103	103	-	269	269	-
Stage 2	-	-	-	-	-	-	268	269	-	138	115	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1440	-	-	1474	-	-	586	558	951	555	550	903
Stage 1	-	-	-	-	-	-	903	810	-	737	687	-
Stage 2	-	-	-	-	-	-	738	687	-	865	800	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1435	-	-	1473	-	-	560	530	949	494	523	899
Mov Cap-2 Maneuver	-	-	-	-	-	-	560	530	-	494	523	-
Stage 1	-	-	-	-	-	-	902	809	-	735	653	-
Stage 2	-	-	-	-	-	-	698	653	-	800	799	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.4	9.6	12.2
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	860	1435	-	-	1473	-	-	510
HCM Lane V/C Ratio	0.094	-	-	-	0.043	-	-	0.018
HCM Control Delay (s)	9.6	0	-	-	7.6	0	-	12.2
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	71	17	77	101	2	4	10	15	5	47	25
Future Vol, veh/h	6	71	17	77	101	2	4	10	15	5	47	25
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	71	17	77	101	2	4	10	15	5	47	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	90	0	0	387	353	83	363	360	105
Stage 1	-	-	-	-	-	-	94	94	-	258	258	-
Stage 2	-	-	-	-	-	-	293	259	-	105	102	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1486	-	-	1505	-	-	572	572	976	593	567	949
Stage 1	-	-	-	-	-	-	913	817	-	747	694	-
Stage 2	-	-	-	-	-	-	715	694	-	901	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1484	-	-	1502	-	-	495	537	974	549	532	947
Mov Cap-2 Maneuver	-	-	-	-	-	-	495	537	-	549	532	-
Stage 1	-	-	-	-	-	-	908	812	-	743	655	-
Stage 2	-	-	-	-	-	-	611	655	-	872	806	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	3.2	10.5	11.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	689	1484	-	-	1502	-	-	622
HCM Lane V/C Ratio	0.042	0.004	-	-	0.051	-	-	0.124
HCM Control Delay (s)	10.5	7.4	0	-	7.5	0	-	11.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.2	-	-	0.4

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	78	9	56	168	1	9	3	16	3	6	7
Future Vol, veh/h	9	78	9	56	168	1	9	3	16	3	6	7
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	78	9	56	168	1	9	3	16	3	6	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	170	0	0	87	0	0	389	383	85	394	387	171
Stage 1	-	-	-	-	-	-	101	101	-	282	282	-
Stage 2	-	-	-	-	-	-	288	282	-	112	105	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1407	-	-	1509	-	-	570	550	974	566	547	873
Stage 1	-	-	-	-	-	-	905	811	-	725	678	-
Stage 2	-	-	-	-	-	-	720	678	-	893	808	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1406	-	-	1509	-	-	540	523	972	533	520	872
Mov Cap-2 Maneuver	-	-	-	-	-	-	540	523	-	533	520	-
Stage 1	-	-	-	-	-	-	899	805	-	719	650	-
Stage 2	-	-	-	-	-	-	678	650	-	867	802	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	1.9	10.2	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	720	1406	-	-	1509	-	-	635
HCM Lane V/C Ratio	0.039	0.006	-	-	0.037	-	-	0.025
HCM Control Delay (s)	10.2	7.6	0	-	7.5	0	-	10.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	105	2	33	73	2	98
Future Vol, veh/h	105	2	33	73	2	98
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	105	2	33	73	2	98

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	110	0	249	109
Stage 1	-	-	-	-	109	-
Stage 2	-	-	-	-	140	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1480	-	766	945
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	907	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1476	-	746	943
Mov Cap-2 Maneuver	-	-	-	-	746	-
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	885	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	938	-	-	1476	-
HCM Lane V/C Ratio	0.107	-	-	0.022	-
HCM Control Delay (s)	9.3	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

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	84	79	1	2	131	3	3	5	5	5	5	69
Future Vol, veh/h	84	79	1	2	131	3	3	5	5	5	5	69
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	84	79	1	2	131	3	3	5	5	5	5	69

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	136	0	0	81	0	0	424	389	81	392	388	136
Stage 1	-	-	-	-	-	-	249	249	-	139	139	-
Stage 2	-	-	-	-	-	-	175	140	-	253	249	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1448	-	-	1517	-	-	540	546	979	567	547	913
Stage 1	-	-	-	-	-	-	755	701	-	864	782	-
Stage 2	-	-	-	-	-	-	827	781	-	751	701	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1446	-	-	1516	-	-	471	511	978	532	511	911
Mov Cap-2 Maneuver	-	-	-	-	-	-	471	511	-	532	511	-
Stage 1	-	-	-	-	-	-	708	658	-	810	780	-
Stage 2	-	-	-	-	-	-	758	779	-	696	658	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.9	0.1	11	9.8
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	611	1446	-	-	1516	-	-	832
HCM Lane V/C Ratio	0.021	0.058	-	-	0.001	-	-	0.095
HCM Control Delay (s)	11	7.6	0	-	7.4	0	-	9.8
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.3

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	28	28	6	12	35	47	4	107	26	51	125	29
Future Vol, veh/h	28	28	6	12	35	47	4	107	26	51	125	29
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	28	6	12	35	47	4	107	26	51	125	29
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	8.3	8.1	8.3	8.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	45%	13%	25%
Vol Thru, %	78%	45%	37%	61%
Vol Right, %	19%	10%	50%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	137	62	94	205
LT Vol	4	28	12	51
Through Vol	107	28	35	125
RT Vol	26	6	47	29
Lane Flow Rate	137	62	94	205
Geometry Grp	1	1	1	1
Degree of Util (X)	0.168	0.084	0.118	0.252
Departure Headway (Hd)	4.421	4.853	4.51	4.419
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	811	738	794	814
Service Time	2.449	2.885	2.54	2.444
HCM Lane V/C Ratio	0.169	0.084	0.118	0.252
HCM Control Delay	8.3	8.3	8.1	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.3	0.4	1

Intersection	
Intersection Delay, s/veh	19.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	88	25	42	75	45	161	26	230	44	49	354	58
Future Vol, veh/h	88	25	42	75	45	161	26	230	44	49	354	58
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	88	25	42	75	45	161	26	230	44	49	354	58
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	13	15.5	16	25.8
HCM LOS	B	C	C	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	57%	27%	11%
Vol Thru, %	77%	16%	16%	77%
Vol Right, %	15%	27%	57%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	300	155	281	461
LT Vol	26	88	75	49
Through Vol	230	25	45	354
RT Vol	44	42	161	58
Lane Flow Rate	300	155	281	461
Geometry Grp	1	1	1	1
Degree of Util (X)	0.522	0.298	0.495	0.764
Departure Headway (Hd)	6.261	6.932	6.348	5.967
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	573	516	565	604
Service Time	4.324	5.009	4.411	4.021
HCM Lane V/C Ratio	0.524	0.3	0.497	0.763
HCM Control Delay	16	13	15.5	25.8
HCM Lane LOS	C	B	C	D
HCM 95th-tile Q	3	1.2	2.7	7

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	15	68	4	17	1	82	1	2	1	3	1
Future Vol, veh/h	1	15	68	4	17	1	82	1	2	1	3	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	15	68	4	17	1	82	1	2	1	3	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	18	0	0	84	0	0	80	78	50	79	112	18
Stage 1	-	-	-	-	-	-	52	52	-	26	26	-
Stage 2	-	-	-	-	-	-	28	26	-	53	86	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1599	-	-	1513	-	-	908	812	1018	910	778	1061
Stage 1	-	-	-	-	-	-	961	852	-	992	874	-
Stage 2	-	-	-	-	-	-	989	874	-	960	824	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1599	-	-	1512	-	-	901	808	1017	905	774	1061
Mov Cap-2 Maneuver	-	-	-	-	-	-	901	808	-	905	774	-
Stage 1	-	-	-	-	-	-	959	850	-	991	871	-
Stage 2	-	-	-	-	-	-	982	871	-	956	822	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.3	9.4	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	902	1599	-	-	1512	-	-	844
HCM Lane V/C Ratio	0.094	0.001	-	-	0.003	-	-	0.006
HCM Control Delay (s)	9.4	7.3	0	-	7.4	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	41	21	22	973	676	52
Future Vol, veh/h	41	21	22	973	676	52
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	21	22	973	676	52

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1696	679	731	0	-	0
Stage 1	679	-	-	-	-	-
Stage 2	1017	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	102	452	873	-	-	-
Stage 1	504	-	-	-	-	-
Stage 2	349	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	96	451	871	-	-	-
Mov Cap-2 Maneuver	280	-	-	-	-	-
Stage 1	475	-	-	-	-	-
Stage 2	348	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.9	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	871	-	321	-	-
HCM Lane V/C Ratio	0.025	-	0.193	-	-
HCM Control Delay (s)	9.2	0	18.9	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	285	22	375	512	0	597
Future Volume (veh/h)	285	22	375	512	0	597
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	285	22	375	0	0	597
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	358	28	1412	0	0	1412
Arrive On Green	0.22	0.22	0.40	0.00	0.00	0.40
Sat Flow, veh/h	1628	126	3725	0	0	3725
Grp Volume(v), veh/h	308	0	375	0	0	597
Grp Sat Flow(s),veh/h/ln	1759	0	1770	0	0	1770
Q Serve(g_s), s	3.3	0.0	1.4	0.0	0.0	2.4
Cycle Q Clear(g_c), s	3.3	0.0	1.4	0.0	0.0	2.4
Prop In Lane	0.93	0.07		0.00	0.00	
Lane Grp Cap(c), veh/h	387	0	1412	0	0	1412
V/C Ratio(X)	0.80	0.00	0.27	0.00	0.00	0.42
Avail Cap(c_a), veh/h	1162	0	3507	0	0	3507
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	7.3	0.0	4.0	0.0	0.0	4.3
Incr Delay (d2), s/veh	1.4	0.0	0.1	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.7	0.0	0.0	1.2
LnGrp Delay(d),s/veh	8.7	0.0	4.1	0.0	0.0	4.5
LnGrp LOS	A		A			A
Approach Vol, veh/h	308		375			597
Approach Delay, s/veh	8.7		4.1			4.5
Approach LOS	A		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		12.3		7.3		12.3		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		19.5		13.0		19.5		
Max Q Clear Time (g_c+I1), s		3.4		5.3		4.4		
Green Ext Time (p_c), s		2.5		0.1		3.5		

Intersection Summary	
HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	314	278	14	410	84	175	170	13	68	320	76
Future Volume (veh/h)	47	314	278	14	410	84	175	170	13	68	320	76
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.91	0.99		0.91	1.00		0.96	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	47	314	278	14	410	84	175	170	13	68	320	76
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	979	922	54	1052	209	218	212	361	83	391	392
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.24	0.24	0.24	0.26	0.26	0.26
Sat Flow, veh/h	289	2575	1441	36	2766	550	921	895	1527	324	1523	1530
Grp Volume(v), veh/h	163	198	278	273	0	235	345	0	13	388	0	76
Grp Sat Flow(s),veh/h/ln	1253	1610	1441	1816	0	1537	1817	0	1527	1847	0	1530
Q Serve(g_s), s	1.7	8.2	8.7	0.0	0.0	10.6	16.9	0.0	0.6	18.7	0.0	3.7
Cycle Q Clear(g_c), s	12.3	8.2	8.7	10.1	0.0	10.6	16.9	0.0	0.6	18.7	0.0	3.7
Prop In Lane	0.29		1.00	0.05		0.36	0.51		1.00	0.18		1.00
Lane Grp Cap(c), veh/h	526	612	922	730	0	584	430	0	361	474	0	392
V/C Ratio(X)	0.31	0.32	0.30	0.37	0.00	0.40	0.80	0.00	0.04	0.82	0.00	0.19
Avail Cap(c_a), veh/h	526	612	922	730	0	584	748	0	629	839	0	695
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.6	20.7	8.6	21.3	0.0	21.5	34.1	0.0	27.8	33.1	0.0	27.5
Incr Delay (d2), s/veh	1.5	1.4	0.8	1.5	0.0	2.0	3.5	0.0	0.0	3.6	0.0	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	3.4	3.9	5.8	5.5	0.0	4.8	9.0	0.0	0.3	10.0	0.0	1.6
LnGrp Delay(d),s/veh	22.1	22.1	9.5	22.8	0.0	23.5	37.6	0.0	27.9	36.7	0.0	27.8
LnGrp LOS	C	C	A	C		C	D		C	D		C
Approach Vol, veh/h		639			508			358			464	
Approach Delay, s/veh		16.6			23.1			37.3			35.2	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		40.0		26.4		40.0		28.3
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		36.0		39.0		36.0		43.0
Max Q Clear Time (g_c+I1), s		14.3		18.9		12.6		20.7
Green Ext Time (p_c), s		3.4		2.2		3.3		2.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.4
HCM 2010 LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	382	303	385	608	390	299
Future Volume (veh/h)	382	303	385	608	390	299
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	382	303	385	608	390	299
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	409	1291	803	1044	428	747
Arrive On Green	0.23	0.69	0.43	0.43	0.24	0.24
Sat Flow, veh/h	1774	1863	1863	1535	1774	1583
Grp Volume(v), veh/h	382	303	385	608	390	299
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1535	1774	1583
Q Serve(g_s), s	27.0	7.6	19.0	27.5	27.4	15.8
Cycle Q Clear(g_c), s	27.0	7.6	19.0	27.5	27.4	15.8
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	409	1291	803	1044	428	747
V/C Ratio(X)	0.93	0.23	0.48	0.58	0.91	0.40
Avail Cap(c_a), veh/h	582	1291	803	1044	593	894
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	48.3	7.2	26.1	11.4	47.3	22.0
Incr Delay (d2), s/veh	15.1	0.4	2.0	2.4	13.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.0	4.0	10.2	21.0	15.1	16.3
LnGrp Delay(d),s/veh	63.4	7.6	28.2	13.7	61.0	22.3
LnGrp LOS	E	A	C	B	E	C
Approach Vol, veh/h		685	993		689	
Approach Delay, s/veh		38.8	19.3		44.2	
Approach LOS		D	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		93.0		35.1	33.5	59.5		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 89		* 43	42.0	* 43		
Max Q Clear Time (g_c+I1), s		9.6		29.4	29.0	29.5		
Green Ext Time (p_c), s		1.2		1.5	0.5	2.6		

Intersection Summary	
HCM 2010 Ctrl Delay	32.2
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	14	3	42	19	199	2	907	61	132	686	45
Future Volume (veh/h)	57	14	3	42	19	199	2	907	61	132	686	45
Number	7	4	14	3	8	18	1	6	16	5	2	12
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		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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	57	14	3	42	19	199	2	907	61	132	686	45
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	117	25	4	153	61	916	26	1065	72	837	2782	182
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.32	0.32	0.32	0.47	0.82	0.82
Sat Flow, veh/h	658	231	38	1000	562	1546	1	3288	221	1774	3372	221
Grp Volume(v), veh/h	74	0	0	61	0	199	514	0	456	132	360	371
Grp Sat Flow(s),veh/h/ln	926	0	0	1562	0	1546	1861	0	1650	1774	1770	1824
Q Serve(g_s), s	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.1	5.9	6.3	6.3
Cycle Q Clear(g_c), s	12.1	0.0	0.0	4.9	0.0	0.0	36.1	0.0	36.1	5.9	6.3	6.3
Prop In Lane	0.77		0.04	0.69		1.00	0.00		0.13	1.00		0.12
Lane Grp Cap(c), veh/h	147	0	0	214	0	916	628	0	534	837	1460	1504
V/C Ratio(X)	0.50	0.00	0.00	0.28	0.00	0.22	0.82	0.00	0.85	0.16	0.25	0.25
Avail Cap(c_a), veh/h	282	0	0	377	0	1083	993	0	859	837	1460	1504
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	0.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	62.4	0.0	0.0	57.7	0.0	14.0	44.2	0.0	44.2	21.1	2.7	2.7
Incr Delay (d2), s/veh	2.0	0.0	0.0	0.5	0.0	0.1	11.3	0.0	15.8	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.0	2.2	0.0	3.7	20.5	0.0	18.8	2.9	3.1	3.2
LnGrp Delay(d),s/veh	64.4	0.0	0.0	58.2	0.0	14.1	55.5	0.0	60.0	21.1	3.0	3.0
LnGrp LOS	E			E		B	E		E	C	A	A
Approach Vol, veh/h		74			260			970			863	
Approach Delay, s/veh		64.4			24.5			57.6			5.8	
Approach LOS		E			C			E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		120.1		19.9	70.7	49.4		19.9
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		100.4		30.4	23.9	* 73		30.4
Max Q Clear Time (g_c+I1), s		8.3		14.1	7.9	38.1		6.9
Green Ext Time (p_c), s		5.4		0.3	0.1	7.2		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	33.2
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	564	774	1360	319	260	559
Future Volume (veh/h)	564	774	1360	319	260	559
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	564	774	1360	319	260	559
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	682	3466	1733	406	355	1109
Arrive On Green	0.20	0.68	0.42	0.42	0.20	0.20
Sat Flow, veh/h	3442	5253	4254	957	1774	2787
Grp Volume(v), veh/h	564	774	1128	551	260	559
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1653	1774	1393
Q Serve(g_s), s	10.6	3.9	19.4	19.4	9.3	10.2
Cycle Q Clear(g_c), s	10.6	3.9	19.4	19.4	9.3	10.2
Prop In Lane	1.00			0.58	1.00	1.00
Lane Grp Cap(c), veh/h	682	3466	1438	701	355	1109
V/C Ratio(X)	0.83	0.22	0.78	0.79	0.73	0.50
Avail Cap(c_a), veh/h	816	3466	1438	701	421	1213
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	25.9	4.0	16.8	16.8	25.3	15.3
Incr Delay (d2), s/veh	6.0	0.1	4.4	8.7	5.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	1.8	9.8	10.4	5.1	3.9
LnGrp Delay(d),s/veh	32.0	4.2	21.1	25.5	30.7	15.7
LnGrp LOS	C	A	C	C	C	B
Approach Vol, veh/h		1338	1679		819	
Approach Delay, s/veh		15.9	22.5		20.4	
Approach LOS		B	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	17.4	32.6				50.0		17.5
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	26.0				46.0		16.0
Max Q Clear Time (g_c+I1), s	12.6	21.4				5.9		12.2
Green Ext Time (p_c), s	0.8	3.6				6.1		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	19.8
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	471	23	99	66	29	48	185	925	67	21	662	335
Future Volume (veh/h)	471	23	99	66	29	48	185	925	67	21	662	335
Number	3	8	18	7	4	14	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		0.97	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	487	0	99	66	29	48	185	925	67	21	662	335
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	608	0	270	158	56	92	124	1960	996	31	1775	1045
Arrive On Green	0.17	0.00	0.17	0.09	0.09	0.09	0.07	0.55	0.55	0.02	0.50	0.50
Sat Flow, veh/h	3548	0	1572	1774	626	1037	1774	3539	1544	1774	3539	1543
Grp Volume(v), veh/h	487	0	99	66	0	77	185	925	67	21	662	335
Grp Sat Flow(s),veh/h/ln	1774	0	1572	1774	0	1663	1774	1770	1544	1774	1770	1543
Q Serve(g_s), s	13.2	0.0	5.6	3.5	0.0	4.4	7.0	15.8	1.6	1.2	11.5	9.1
Cycle Q Clear(g_c), s	13.2	0.0	5.6	3.5	0.0	4.4	7.0	15.8	1.6	1.2	11.5	9.1
Prop In Lane	1.00		1.00	1.00		0.62	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	608	0	270	158	0	148	124	1960	996	31	1775	1045
V/C Ratio(X)	0.80	0.00	0.37	0.42	0.00	0.52	1.49	0.47	0.07	0.67	0.37	0.32
Avail Cap(c_a), veh/h	993	0	440	479	0	449	124	1960	996	71	1775	1045
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	0.90	0.90	0.90	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	0.0	36.6	43.1	0.0	43.5	46.5	13.5	6.7	48.8	15.3	6.8
Incr Delay (d2), s/veh	1.9	0.0	0.6	1.3	0.0	2.1	254.6	0.7	0.1	8.8	0.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	0.0	2.5	1.8	0.0	2.1	12.2	7.9	0.9	0.7	5.8	6.1
LnGrp Delay(d),s/veh	41.6	0.0	37.2	44.4	0.0	45.6	301.1	14.2	6.8	57.6	15.9	7.6
LnGrp LOS	D		D	D		D	F	B	A	E	B	A
Approach Vol, veh/h		586			143			1177			1018	
Approach Delay, s/veh		40.9			45.0			58.9			14.0	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.8	60.0		13.1	11.0	54.7		21.1
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.0	4.6		4.0
Max Green Setting (Gmax), s	4.0	24.2		* 27	7.0	21.2		28.0
Max Q Clear Time (g_c+I1), s	3.2	17.8		6.4	9.0	13.5		15.2
Green Ext Time (p_c), s	0.0	4.6		0.4	0.0	5.1		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	39.0
HCM 2010 LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	29.2
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	346	87	182	239	21	88	147	220	39	123	28
Future Vol, veh/h	45	346	87	182	239	21	88	147	220	39	123	28
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	45	346	87	182	239	21	88	147	220	39	123	28
Number of Lanes	1	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	3
HCM Control Delay	40	25.8	23.5	23.7
HCM LOS	E	D	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1
Vol Left, %	37%	0%	100%	0%	0%	100%	0%	21%
Vol Thru, %	63%	0%	0%	100%	0%	0%	92%	65%
Vol Right, %	0%	100%	0%	0%	100%	0%	8%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	235	220	45	346	87	182	260	190
LT Vol	88	0	45	0	0	182	0	39
Through Vol	147	0	0	346	0	0	239	123
RT Vol	0	220	0	0	87	0	21	28
Lane Flow Rate	235	220	45	346	87	182	260	190
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.616	0.521	0.12	0.875	0.202	0.495	0.665	0.53
Departure Headway (Hd)	9.443	8.526	9.622	9.103	8.377	9.787	9.204	10.045
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	381	422	372	398	427	368	393	357
Service Time	7.229	6.31	7.403	6.883	6.156	7.575	6.992	7.84
HCM Lane V/C Ratio	0.617	0.521	0.121	0.869	0.204	0.495	0.662	0.532
HCM Control Delay	26.4	20.3	13.7	50.1	13.3	21.9	28.6	23.7
HCM Lane LOS	D	C	B	F	B	C	D	C
HCM 95th-tile Q	4	2.9	0.4	8.7	0.7	2.6	4.6	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	132	32	138	119	213	48	1216	102	152	1363	21
Future Volume (veh/h)	23	132	32	138	119	213	48	1216	102	152	1363	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	140	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	23	132	0	138	119	213	48	1216	102	152	1363	0
Adj No. of Lanes	0	2	0	0	2	0	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	72	490	0	188	141	307	62	2727	167	257	2356	1054
Arrive On Green	0.23	0.23	0.00	0.23	0.23	0.23	0.03	0.56	0.56	0.14	0.67	0.00
Sat Flow, veh/h	193	2182	0	671	603	1313	1774	4776	400	1774	3539	1583
Grp Volume(v), veh/h	63	92	0	239	0	231	48	863	455	152	1363	0
Grp Sat Flow(s),veh/h/ln	680	1610	0	1161	0	1426	1774	1695	1786	1774	1770	1583
Q Serve(g_s), s	2.9	8.4	0.0	29.1	0.0	27.0	4.9	27.6	27.6	14.6	38.1	0.0
Cycle Q Clear(g_c), s	29.9	8.4	0.0	37.6	0.0	27.0	4.9	27.6	27.6	14.6	38.1	0.0
Prop In Lane	0.37		0.00	0.58		0.92	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	186	376	0	303	0	333	62	1884	1003	257	2356	1054
V/C Ratio(X)	0.34	0.24	0.00	0.79	0.00	0.69	0.78	0.46	0.45	0.59	0.58	0.00
Avail Cap(c_a), veh/h	310	514	0	427	0	455	137	1884	992	332	2356	1054
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	62.3	56.6	0.0	71.9	0.0	63.7	87.0	30.0	29.4	72.7	16.5	0.0
Incr Delay (d2), s/veh	1.1	0.3	0.0	6.4	0.0	2.8	18.9	0.8	1.5	2.2	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.6	28.5	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.8	0.0	12.2	0.0	10.9	2.7	34.2	34.3	7.3	18.9	0.0
LnGrp Delay(d),s/veh	63.4	57.0	0.0	78.3	0.0	66.5	105.9	63.5	59.4	74.9	17.6	0.0
LnGrp LOS	E	E		E		E	F	E	E	E	B	
Approach Vol, veh/h		155			470			1366			1515	
Approach Delay, s/veh		59.6			72.5			63.6			23.3	
Approach LOS		E			E			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	30.3	105.0		46.5	10.3	125.0		46.5
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	34.0	101.0		58.0	14.0	121.0		58.0
Max Q Clear Time (g_c+I1), s	16.6	29.6		31.9	6.9	40.1		39.6
Green Ext Time (p_c), s	0.4	13.4		0.9	0.0	16.5		2.9

Intersection Summary	
HCM 2010 Ctrl Delay	47.2
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	353	40	518	282	295	71	1032	484	277	1241	64
Future Volume (veh/h)	142	353	40	518	282	295	71	1032	484	277	1241	64
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		0.96	1.00		0.97	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	142	353	40	518	282	295	71	1032	484	277	1241	64
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	171	432	49	598	396	483	91	1642	1000	341	1811	963
Arrive On Green	0.10	0.14	0.14	0.17	0.21	0.21	0.05	0.46	0.46	0.10	0.51	0.51
Sat Flow, veh/h	1774	3192	359	3442	1863	1531	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	142	194	199	518	282	295	71	1032	484	277	1241	64
Grp Sat Flow(s),veh/h/ln	1774	1770	1781	1721	1863	1531	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	9.8	13.3	13.6	18.3	17.6	5.7	4.9	27.6	9.4	9.9	33.0	2.1
Cycle Q Clear(g_c), s	9.8	13.3	13.6	18.3	17.6	5.7	4.9	27.6	9.4	9.9	33.0	2.1
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	171	239	241	598	396	483	91	1642	1000	341	1811	963
V/C Ratio(X)	0.83	0.81	0.82	0.87	0.71	0.61	0.78	0.63	0.48	0.81	0.69	0.07
Avail Cap(c_a), veh/h	284	325	328	826	492	561	170	1642	1000	495	1811	963
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	55.5	52.5	52.6	50.2	45.7	21.4	58.6	25.4	4.1	55.2	22.9	10.0
Incr Delay (d2), s/veh	10.0	10.6	11.7	7.2	3.6	1.5	13.5	1.8	1.7	6.5	2.1	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	5.3	7.2	7.5	9.3	9.4	8.1	2.8	13.9	4.4	5.0	16.6	0.9
LnGrp Delay(d),s/veh	65.5	63.1	64.3	57.5	49.3	22.9	72.1	27.2	5.8	61.7	25.1	10.1
LnGrp LOS	E	E	E	E	D	C	E	C	A	E	C	B
Approach Vol, veh/h		535			1095			1587			1582	
Approach Delay, s/veh		64.2			46.1			22.7			30.9	
Approach LOS		E			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	16.4	62.0	25.7	20.9	10.4	68.0	16.0	30.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	18.0	58.0	30.0	23.0	12.0	64.0	20.0	33.0
Max Q Clear Time (g_c+I1), s	11.9	29.6	20.3	15.6	6.9	35.0	11.8	19.6
Green Ext Time (p_c), s	0.5	11.3	1.4	1.3	0.1	11.5	0.2	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	35.3
HCM 2010 LOS	D

Notes

User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	510	245	2042	0	0	766
Future Volume (veh/h)	510	245	2042	0	0	766
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	510	245	2042	0	0	766
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	672	544	2481	0	0	2481
Arrive On Green	0.20	0.20	0.70	0.00	0.00	0.70
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	510	245	2042	0	0	766
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	11.2	6.2	32.6	0.0	0.0	6.6
Cycle Q Clear(g_c), s	11.2	6.2	32.6	0.0	0.0	6.6
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	672	544	2481	0	0	2481
V/C Ratio(X)	0.76	0.45	0.82	0.00	0.00	0.31
Avail Cap(c_a), veh/h	1076	871	2481	0	0	2481
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.54	0.00	0.00	1.00
Uniform Delay (d), s/veh	30.4	28.4	8.4	0.0	0.0	4.6
Incr Delay (d2), s/veh	1.8	0.6	1.8	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	2.4	16.2	0.0	0.0	3.3
LnGrp Delay(d),s/veh	32.2	29.0	10.2	0.0	0.0	4.9
LnGrp LOS	C	C	B			A
Approach Vol, veh/h	755		2042			766
Approach Delay, s/veh	31.2		10.2			4.9
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		60.2				60.2		19.8
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		46.7				46.7		25.0
Max Q Clear Time (g_c+I1), s		34.6				8.6		13.2
Green Ext Time (p_c), s		10.2				6.3		2.4

Intersection Summary	
HCM 2010 Ctrl Delay	13.5
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1352	403	0	1015	884	0
Future Volume (veh/h)	1352	403	0	1015	884	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1352	403	0	1015	884	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1485	683	0	1649	1649	0
Arrive On Green	0.43	0.43	0.00	0.47	0.93	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1352	403	0	1015	884	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	29.4	15.5	0.0	17.2	2.7	0.0
Cycle Q Clear(g_c), s	29.4	15.5	0.0	17.2	2.7	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1485	683	0	1649	1649	0
V/C Ratio(X)	0.91	0.59	0.00	0.62	0.54	0.00
Avail Cap(c_a), veh/h	1717	790	0	1649	1649	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.89	0.00
Uniform Delay (d), s/veh	21.3	17.3	0.0	16.0	1.5	0.0
Incr Delay (d2), s/veh	6.5	0.4	0.0	1.7	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.2	6.8	0.0	8.7	1.2	0.0
LnGrp Delay(d),s/veh	27.7	17.7	0.0	17.7	2.7	0.0
LnGrp LOS	C	B		B	A	
Approach Vol, veh/h	1755			1015	884	
Approach Delay, s/veh	25.4			17.7	2.7	
Approach LOS	C			B	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		41.4		38.6		41.4		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		31.9		39.9		31.9		
Max Q Clear Time (g_c+I1), s		19.2		31.4		4.7		
Green Ext Time (p_c), s		4.2		3.1		4.6		

Intersection Summary	
HCM 2010 Ctrl Delay	17.8
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	12.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	412	63	48	272	22	43	63	62	41	74	29
Future Vol, veh/h	59	412	63	48	272	22	43	63	62	41	74	29
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	412	63	48	272	22	43	63	62	41	74	29
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	13.6	11.9	11.8	11.7
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	26%	22%	0%	26%	0%	28%
Vol Thru, %	38%	78%	77%	74%	86%	51%
Vol Right, %	37%	0%	23%	0%	14%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	168	265	269	184	158	144
LT Vol	43	59	0	48	0	41
Through Vol	63	206	206	136	136	74
RT Vol	62	0	63	0	22	29
Lane Flow Rate	168	265	269	184	158	144
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.29	0.454	0.44	0.329	0.272	0.255
Departure Headway (Hd)	6.215	6.167	5.887	6.431	6.199	6.381
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	575	583	611	558	577	560
Service Time	4.289	3.927	3.647	4.198	3.966	4.458
HCM Lane V/C Ratio	0.292	0.455	0.44	0.33	0.274	0.257
HCM Control Delay	11.8	14	13.2	12.4	11.3	11.7
HCM Lane LOS	B	B	B	B	B	B
HCM 95th-tile Q	1.2	2.4	2.2	1.4	1.1	1

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	81	631	18	20	597	48	5	2	17	30	0	77
Future Vol, veh/h	81	631	18	20	597	48	5	2	17	30	0	77
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	81	631	18	20	597	48	5	2	17	30	0	77

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	676	0	0	665	0	0	1157	1534	366	1196	1519	354
Stage 1	-	-	-	-	-	-	818	818	-	692	692	-
Stage 2	-	-	-	-	-	-	339	716	-	504	827	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	911	-	-	920	-	-	151	115	631	142	118	642
Stage 1	-	-	-	-	-	-	336	388	-	400	443	-
Stage 2	-	-	-	-	-	-	649	432	-	518	384	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	887	-	-	908	-	-	113	91	610	112	94	625
Mov Cap-2 Maneuver	-	-	-	-	-	-	113	91	-	112	94	-
Stage 1	-	-	-	-	-	-	284	328	-	334	416	-
Stage 2	-	-	-	-	-	-	549	406	-	420	325	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.4	20.6	26.3
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	255	887	-	-	908	-	-	274
HCM Lane V/C Ratio	0.094	0.091	-	-	0.022	-	-	0.391
HCM Control Delay (s)	20.6	9.5	0.5	-	9.1	0.1	-	26.3
HCM Lane LOS	C	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.3	0.3	-	-	0.1	-	-	1.8

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	74	11	8	90	2	14	2	14	5	0	1
Future Vol, veh/h	1	74	11	8	90	2	14	2	14	5	0	1
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	74	11	8	90	2	14	2	14	5	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	96	0	0	86	0	0	192	195	82	202	199	96
Stage 1	-	-	-	-	-	-	83	83	-	111	111	-
Stage 2	-	-	-	-	-	-	109	112	-	91	88	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1498	-	-	1510	-	-	768	700	978	756	697	960
Stage 1	-	-	-	-	-	-	925	826	-	894	804	-
Stage 2	-	-	-	-	-	-	896	803	-	916	822	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1493	-	-	1509	-	-	762	692	976	736	689	956
Mov Cap-2 Maneuver	-	-	-	-	-	-	762	692	-	736	689	-
Stage 1	-	-	-	-	-	-	923	824	-	890	797	-
Stage 2	-	-	-	-	-	-	889	796	-	899	820	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.6	9.4	9.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	843	1493	-	-	1509	-	-	765
HCM Lane V/C Ratio	0.036	0.001	-	-	0.005	-	-	0.008
HCM Control Delay (s)	9.4	7.4	0	-	7.4	0	-	9.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	40	6	9	57	9	16	14	18	5	31	7
Future Vol, veh/h	7	40	6	9	57	9	16	14	18	5	31	7
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	40	6	9	57	9	16	14	18	5	31	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	68	0	0	48	0	0	159	145	46	156	144	65
Stage 1	-	-	-	-	-	-	59	59	-	82	82	-
Stage 2	-	-	-	-	-	-	100	86	-	74	62	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1533	-	-	1559	-	-	807	746	1023	810	747	999
Stage 1	-	-	-	-	-	-	953	846	-	926	827	-
Stage 2	-	-	-	-	-	-	906	824	-	935	843	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1530	-	-	1556	-	-	767	735	1020	776	736	997
Mov Cap-2 Maneuver	-	-	-	-	-	-	767	735	-	776	736	-
Stage 1	-	-	-	-	-	-	946	840	-	920	820	-
Stage 2	-	-	-	-	-	-	860	817	-	898	837	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.9	9.6	9.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	834	1530	-	-	1556	-	-	774
HCM Lane V/C Ratio	0.058	0.005	-	-	0.006	-	-	0.056
HCM Control Delay (s)	9.6	7.4	0	-	7.3	0	-	9.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	46	2	13	55	2	7	11	13	1	3	5
Future Vol, veh/h	1	46	2	13	55	2	7	11	13	1	3	5
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	46	2	13	55	2	7	11	13	1	3	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	58	0	0	48	0	0	136	133	49	146	133	58
Stage 1	-	-	-	-	-	-	49	49	-	83	83	-
Stage 2	-	-	-	-	-	-	87	84	-	63	50	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1546	-	-	1559	-	-	835	758	1020	823	758	1008
Stage 1	-	-	-	-	-	-	964	854	-	925	826	-
Stage 2	-	-	-	-	-	-	921	825	-	948	853	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1545	-	-	1559	-	-	822	750	1018	795	750	1006
Mov Cap-2 Maneuver	-	-	-	-	-	-	822	750	-	795	750	-
Stage 1	-	-	-	-	-	-	963	853	-	923	818	-
Stage 2	-	-	-	-	-	-	904	817	-	921	852	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.4	9.3	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	862	1545	-	-	1559	-	-	880
HCM Lane V/C Ratio	0.036	0.001	-	-	0.008	-	-	0.01
HCM Control Delay (s)	9.3	7.3	0	-	7.3	0	-	9.1
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	44	0	18	42	3	36
Future Vol, veh/h	44	0	18	42	3	36
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	0	18	42	3	36

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	47	0	126	47
Stage 1	-	-	-	-	47	-
Stage 2	-	-	-	-	79	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1560	-	869	1022
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	944	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1556	-	856	1019
Mov Cap-2 Maneuver	-	-	-	-	856	-
Stage 1	-	-	-	-	973	-
Stage 2	-	-	-	-	932	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1004	-	-	1556	-
HCM Lane V/C Ratio	0.039	-	-	0.012	-
HCM Control Delay (s)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	36	50	8	5	65	4	2	4	3	2	3	35
Future Vol, veh/h	36	50	8	5	65	4	2	4	3	2	3	35
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	50	8	5	65	4	2	4	3	2	3	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	71	0	0	59	0	0	224	208	55	209	210	70
Stage 1	-	-	-	-	-	-	127	127	-	79	79	-
Stage 2	-	-	-	-	-	-	97	81	-	130	131	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1529	-	-	1545	-	-	732	689	1012	748	687	993
Stage 1	-	-	-	-	-	-	877	791	-	930	829	-
Stage 2	-	-	-	-	-	-	910	828	-	874	788	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1526	-	-	1544	-	-	688	668	1011	726	666	991
Mov Cap-2 Maneuver	-	-	-	-	-	-	688	668	-	726	666	-
Stage 1	-	-	-	-	-	-	855	771	-	906	825	-
Stage 2	-	-	-	-	-	-	871	824	-	846	768	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.8	0.5	9.8	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	759	1526	-	-	1544	-	-	939
HCM Lane V/C Ratio	0.012	0.024	-	-	0.003	-	-	0.043
HCM Control Delay (s)	9.8	7.4	0	-	7.3	0	-	9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	18	6	16	38	49	5	136	10	73	170	43
Future Vol, veh/h	31	18	6	16	38	49	5	136	10	73	170	43
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	18	6	16	38	49	5	136	10	73	170	43
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	8.6	8.5	8.8	9.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	56%	16%	26%
Vol Thru, %	90%	33%	37%	59%
Vol Right, %	7%	11%	48%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	151	55	103	286
LT Vol	5	31	16	73
Through Vol	136	18	38	170
RT Vol	10	6	49	43
Lane Flow Rate	151	55	103	286
Geometry Grp	1	1	1	1
Degree of Util (X)	0.193	0.078	0.136	0.354
Departure Headway (Hd)	4.607	5.113	4.748	4.456
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	778	698	753	807
Service Time	2.644	3.162	2.791	2.488
HCM Lane V/C Ratio	0.194	0.079	0.137	0.354
HCM Control Delay	8.8	8.6	8.5	9.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.3	0.5	1.6

Intersection	
Intersection Delay, s/veh	18.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	89	42	32	18	27	94	13	207	37	87	363	92
Future Vol, veh/h	89	42	32	18	27	94	13	207	37	87	363	92
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	89	42	32	18	27	94	13	207	37	87	363	92
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	12	11	12.5	24.9
HCM LOS	B	B	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	55%	13%	16%
Vol Thru, %	81%	26%	19%	67%
Vol Right, %	14%	20%	68%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	257	163	139	542
LT Vol	13	89	18	87
Through Vol	207	42	27	363
RT Vol	37	32	94	92
Lane Flow Rate	257	163	139	542
Geometry Grp	1	1	1	1
Degree of Util (X)	0.402	0.287	0.233	0.787
Departure Headway (Hd)	5.638	6.335	6.041	5.229
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	635	562	589	688
Service Time	3.714	4.424	4.133	3.289
HCM Lane V/C Ratio	0.405	0.29	0.236	0.788
HCM Control Delay	12.5	12	11	24.9
HCM Lane LOS	B	B	B	C
HCM 95th-tile Q	1.9	1.2	0.9	7.8

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	11	74	1	11	0	117	3	4	0	0	0
Future Vol, veh/h	2	11	74	1	11	0	117	3	4	0	0	0
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	11	74	1	11	0	117	3	4	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	11	0	0	86	0	0	66	66	49	69	103	11
Stage 1	-	-	-	-	-	-	53	53	-	13	13	-
Stage 2	-	-	-	-	-	-	13	13	-	56	90	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1608	-	-	1510	-	-	927	825	1020	923	787	1070
Stage 1	-	-	-	-	-	-	960	851	-	1007	885	-
Stage 2	-	-	-	-	-	-	1007	885	-	956	820	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1608	-	-	1509	-	-	925	823	1019	916	785	1070
Mov Cap-2 Maneuver	-	-	-	-	-	-	925	823	-	916	785	-
Stage 1	-	-	-	-	-	-	958	849	-	1006	884	-
Stage 2	-	-	-	-	-	-	1006	884	-	948	818	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.6	9.5	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	925	1608	-	-	1509	-	-	-
HCM Lane V/C Ratio	0.134	0.001	-	-	0.001	-	-	-
HCM Control Delay (s)	9.5	7.2	0	-	7.4	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	43	20	9	958	633	119
Future Vol, veh/h	43	20	9	958	633	119
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	20	9	958	633	119

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1612	636	755	0	-	0
Stage 1	636	-	-	-	-	-
Stage 2	976	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	115	478	855	-	-	-
Stage 1	527	-	-	-	-	-
Stage 2	365	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	112	477	853	-	-	-
Mov Cap-2 Maneuver	299	-	-	-	-	-
Stage 1	514	-	-	-	-	-
Stage 2	364	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	853	-	339	-	-
HCM Lane V/C Ratio	0.011	-	0.186	-	-
HCM Control Delay (s)	9.3	0	18	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.7	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	444	12	366	425	0	856
Future Volume (veh/h)	444	12	366	425	0	856
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	444	12	366	0	0	856
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	529	14	1471	0	0	1471
Arrive On Green	0.31	0.31	0.42	0.00	0.00	0.42
Sat Flow, veh/h	1718	46	3725	0	0	3725
Grp Volume(v), veh/h	457	0	366	0	0	856
Grp Sat Flow(s),veh/h/ln	1769	0	1770	0	0	1770
Q Serve(g_s), s	6.5	0.0	1.8	0.0	0.0	5.1
Cycle Q Clear(g_c), s	6.5	0.0	1.8	0.0	0.0	5.1
Prop In Lane	0.97	0.03		0.00	0.00	
Lane Grp Cap(c), veh/h	545	0	1471	0	0	1471
V/C Ratio(X)	0.84	0.00	0.25	0.00	0.00	0.58
Avail Cap(c_a), veh/h	978	0	2282	0	0	2282
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	8.8	0.0	5.2	0.0	0.0	6.1
Incr Delay (d2), s/veh	1.4	0.0	0.1	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.9	0.0	0.0	2.5
LnGrp Delay(d),s/veh	10.1	0.0	5.3	0.0	0.0	6.6
LnGrp LOS	B		A			A
Approach Vol, veh/h	457		366			856
Approach Delay, s/veh	10.1		5.3			6.6
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		15.8		11.4		15.8		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		17.5		15.0		17.5		
Max Q Clear Time (g_c+I1), s		3.8		8.5		7.1		
Green Ext Time (p_c), s		2.3		0.1		4.2		

Intersection Summary	
HCM 2010 Ctrl Delay	7.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	363	490	17	258	69	149	204	17	65	340	15
Future Volume (veh/h)	37	363	490	17	258	69	149	204	17	65	340	15
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.91	0.99		0.91	1.00		0.97	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	37	363	490	17	258	69	149	204	17	65	340	15
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	1125	907	71	912	235	186	254	369	78	410	405
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.24	0.24	0.24	0.26	0.26	0.26
Sat Flow, veh/h	216	3079	1437	79	2497	643	770	1054	1528	297	1551	1531
Grp Volume(v), veh/h	206	194	490	182	0	162	353	0	17	405	0	15
Grp Sat Flow(s),veh/h/ln	1685	1610	1437	1711	0	1508	1824	0	1528	1848	0	1531
Q Serve(g_s), s	0.0	8.1	18.9	0.0	0.0	7.1	16.9	0.0	0.8	19.2	0.0	0.7
Cycle Q Clear(g_c), s	7.3	8.1	18.9	6.4	0.0	7.1	16.9	0.0	0.8	19.2	0.0	0.7
Prop In Lane	0.18		1.00	0.09		0.43	0.42		1.00	0.16		1.00
Lane Grp Cap(c), veh/h	661	588	907	667	0	551	440	0	369	488	0	405
V/C Ratio(X)	0.31	0.33	0.54	0.27	0.00	0.29	0.80	0.00	0.05	0.83	0.00	0.04
Avail Cap(c_a), veh/h	661	588	907	667	0	551	784	0	657	874	0	724
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.1	21.3	10.9	20.8	0.0	21.0	33.2	0.0	27.1	32.2	0.0	25.4
Incr Delay (d2), s/veh	1.2	1.5	2.3	1.0	0.0	1.4	3.4	0.0	0.1	3.7	0.0	0.0
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	4.0	3.9	12.7	3.5	0.0	3.2	9.0	0.0	0.3	10.3	0.0	0.3
LnGrp Delay(d),s/veh	22.3	22.8	13.2	21.8	0.0	22.3	36.7	0.0	27.1	35.9	0.0	25.5
LnGrp LOS	C	C	B	C		C	D		C	D		C
Approach Vol, veh/h		890			344			370			420	
Approach Delay, s/veh		17.4			22.0			36.2			35.6	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		38.0		26.4		38.0		28.6
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		34.0		40.0		34.0		44.0
Max Q Clear Time (g_c+I1), s		20.9		18.9		9.1		21.2
Green Ext Time (p_c), s		3.9		2.3		2.2		2.7

Intersection Summary	
HCM 2010 Ctrl Delay	25.4
HCM 2010 LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	411	374	213	552	469	248
Future Volume (veh/h)	411	374	213	552	469	248
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	411	374	213	552	469	248
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	445	1211	687	1017	506	849
Arrive On Green	0.25	0.65	0.37	0.37	0.29	0.29
Sat Flow, veh/h	1774	1863	1863	1533	1774	1583
Grp Volume(v), veh/h	411	374	213	552	469	248
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1533	1774	1583
Q Serve(g_s), s	29.5	11.5	10.6	25.4	33.5	11.2
Cycle Q Clear(g_c), s	29.5	11.5	10.6	25.4	33.5	11.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	445	1211	687	1017	506	849
V/C Ratio(X)	0.92	0.31	0.31	0.54	0.93	0.29
Avail Cap(c_a), veh/h	694	1211	687	1017	773	1087
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	47.6	10.0	29.3	12.2	45.3	16.6
Incr Delay (d2), s/veh	12.9	0.7	1.2	2.1	11.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.0	6.0	5.7	20.2	18.0	13.2
LnGrp Delay(d),s/veh	60.5	10.6	30.5	14.3	56.6	16.8
LnGrp LOS	E	B	C	B	E	B
Approach Vol, veh/h		785	765		717	
Approach Delay, s/veh		36.8	18.8		42.8	
Approach LOS		D	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		89.0		41.4	36.7	52.3		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 85		* 57	51.0	* 30		
Max Q Clear Time (g_c+I1), s		13.5		35.5	31.5	27.4		
Green Ext Time (p_c), s		1.6		1.7	1.2	0.6		

Intersection Summary	
HCM 2010 Ctrl Delay	32.6
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	58	0	72	22	268	0	870	62	224	691	91
Future Volume (veh/h)	145	58	0	72	22	268	0	870	62	224	691	91
Number	7	4	14	3	8	18	1	6	16	5	2	12
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		0.98	1.00		0.98	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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	145	58	0	72	22	268	0	870	62	224	691	91
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	238	83	0	327	90	841	0	999	71	534	2048	269
Arrive On Green	0.23	0.23	0.00	0.23	0.23	0.23	0.00	0.30	0.30	0.30	0.65	0.65
Sat Flow, veh/h	686	354	0	1060	385	1556	0	3438	238	1774	3145	414
Grp Volume(v), veh/h	203	0	0	94	0	268	0	460	472	224	389	393
Grp Sat Flow(s),veh/h/ln	1040	0	0	1445	0	1556	0	1770	1814	1774	1770	1789
Q Serve(g_s), s	11.5	0.0	0.0	0.0	0.0	0.0	0.0	19.7	19.7	8.1	7.9	7.9
Cycle Q Clear(g_c), s	15.6	0.0	0.0	4.1	0.0	0.0	0.0	19.7	19.7	8.1	7.9	7.9
Prop In Lane	0.71		0.00	0.77		1.00	0.00		0.13	1.00		0.23
Lane Grp Cap(c), veh/h	320	0	0	418	0	841	0	529	542	534	1152	1165
V/C Ratio(X)	0.63	0.00	0.00	0.23	0.00	0.32	0.00	0.87	0.87	0.42	0.34	0.34
Avail Cap(c_a), veh/h	449	0	0	568	0	1004	0	575	589	534	1152	1165
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	0.00	1.00	1.00	0.90	0.90	0.90
Uniform Delay (d), s/veh	30.6	0.0	0.0	25.0	0.0	10.4	0.0	26.6	26.6	22.4	6.2	6.2
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.2	0.0	0.2	0.0	17.6	17.2	0.2	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	4.4	0.0	0.0	1.7	0.0	3.3	0.0	12.2	12.4	3.9	4.0	4.1
LnGrp Delay(d),s/veh	32.1	0.0	0.0	25.2	0.0	10.6	0.0	44.2	43.8	22.5	7.0	7.0
LnGrp LOS	C			C		B		D	D	C	A	A
Approach Vol, veh/h		203			362			932			1006	
Approach Delay, s/veh		32.1			14.4			44.0			10.4	
Approach LOS		C			B			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		56.7		23.3	28.7	28.0		23.3
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		43.7		27.1	14.1	* 26		27.1
Max Q Clear Time (g_c+I1), s		9.9		17.6	10.1	21.7		6.1
Green Ext Time (p_c), s		5.7		0.7	0.1	2.2		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	25.2
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	561	1699	629	182	519	771
Future Volume (veh/h)	561	1699	629	182	519	771
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	561	1699	629	182	519	771
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	676	2755	1136	321	621	1522
Arrive On Green	0.20	0.54	0.29	0.29	0.35	0.35
Sat Flow, veh/h	3442	5253	4067	1102	1774	2787
Grp Volume(v), veh/h	561	1699	545	266	519	771
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1612	1774	1393
Q Serve(g_s), s	11.6	17.0	10.0	10.3	19.8	12.8
Cycle Q Clear(g_c), s	11.6	17.0	10.0	10.3	19.8	12.8
Prop In Lane	1.00			0.68	1.00	1.00
Lane Grp Cap(c), veh/h	676	2755	988	469	621	1522
V/C Ratio(X)	0.83	0.62	0.55	0.57	0.84	0.51
Avail Cap(c_a), veh/h	839	2755	988	469	769	1755
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	28.5	11.6	22.1	22.2	22.1	10.5
Incr Delay (d2), s/veh	5.8	1.0	2.2	4.9	6.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	8.1	5.0	5.2	10.8	4.9
LnGrp Delay(d),s/veh	34.3	12.7	24.3	27.1	28.7	10.8
LnGrp LOS	C	B	C	C	C	B
Approach Vol, veh/h		2260	811		1290	
Approach Delay, s/veh		18.0	25.2		18.0	
Approach LOS		B	C		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	18.5	25.5				44.0		29.8
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	18.0	18.0				40.0		32.0
Max Q Clear Time (g_c+I1), s	13.6	12.3				19.0		21.8
Green Ext Time (p_c), s	0.9	2.5				12.8		4.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	464	47	169	31	16	24	124	979	104	34	867	401
Future Volume (veh/h)	464	47	169	31	16	24	124	979	104	34	867	401
Number	3	8	18	7	4	14	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		0.98	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	498	0	169	31	16	24	124	979	104	34	867	401
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	570	0	252	104	39	58	634	2306	1099	44	1114	738
Arrive On Green	0.16	0.00	0.16	0.06	0.06	0.06	0.72	1.00	1.00	0.02	0.31	0.31
Sat Flow, veh/h	3548	0	1572	1774	665	997	1774	3539	1545	1774	3539	1537
Grp Volume(v), veh/h	498	0	169	31	0	40	124	979	104	34	867	401
Grp Sat Flow(s),veh/h/ln	1774	0	1572	1774	0	1662	1774	1770	1545	1774	1770	1537
Q Serve(g_s), s	21.9	0.0	16.2	2.7	0.0	3.7	3.7	0.0	0.0	3.0	35.6	29.6
Cycle Q Clear(g_c), s	21.9	0.0	16.2	2.7	0.0	3.7	3.7	0.0	0.0	3.0	35.6	29.6
Prop In Lane	1.00		1.00	1.00		0.60	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	570	0	252	104	0	97	634	2306	1099	44	1114	738
V/C Ratio(X)	0.87	0.00	0.67	0.30	0.00	0.41	0.20	0.42	0.09	0.78	0.78	0.54
Avail Cap(c_a), veh/h	843	0	373	299	0	280	634	2306	1099	89	1265	804
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.82	0.82	0.82	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.6	0.0	63.2	72.2	0.0	72.7	15.2	0.0	0.0	77.6	49.8	29.8
Incr Delay (d2), s/veh	6.2	0.0	2.3	1.2	0.0	2.1	0.0	0.5	0.1	10.5	5.4	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	11.3	0.0	7.2	1.4	0.0	1.8	1.8	0.2	0.0	1.6	18.2	17.1
LnGrp Delay(d),s/veh	71.7	0.0	65.4	73.4	0.0	74.8	15.2	0.5	0.1	88.1	55.1	32.7
LnGrp LOS	E		E	E		E	B	A	A	F	E	C
Approach Vol, veh/h		667			71			1207			1302	
Approach Delay, s/veh		70.1			74.2			2.0			49.1	
Approach LOS		E			E			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.9	108.8		13.5	61.8	55.0		29.7
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.6	* 4.6		4.0
Max Green Setting (Gmax), s	8.0	70.2		* 27	21.0	* 57		38.0
Max Q Clear Time (g_c+I1), s	5.0	2.0		5.7	5.7	37.6		23.9
Green Ext Time (p_c), s	0.0	21.8		0.2	0.1	12.8		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	36.4
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	34.3
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	272	63	207	325	33	69	118	214	37	162	55
Future Vol, veh/h	34	272	63	207	325	33	69	118	214	37	162	55
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	272	63	207	325	33	69	118	214	37	162	55
Number of Lanes	1	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	3
HCM Control Delay	30.1	45.7	22.4	33.6
HCM LOS	D	E	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1
Vol Left, %	37%	0%	100%	0%	0%	100%	0%	15%
Vol Thru, %	63%	0%	0%	100%	0%	0%	91%	64%
Vol Right, %	0%	100%	0%	0%	100%	0%	9%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	187	214	34	272	63	207	358	254
LT Vol	69	0	34	0	0	207	0	37
Through Vol	118	0	0	272	0	0	325	162
RT Vol	0	214	0	0	63	0	33	55
Lane Flow Rate	187	214	34	272	63	207	358	254
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.518	0.538	0.097	0.74	0.159	0.564	0.917	0.706
Departure Headway (Hd)	9.972	9.052	10.314	9.792	9.061	9.814	9.222	10.009
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	363	398	348	370	396	368	394	361
Service Time	7.724	6.804	8.065	7.542	6.811	7.564	6.971	7.762
HCM Lane V/C Ratio	0.515	0.538	0.098	0.735	0.159	0.563	0.909	0.704
HCM Control Delay	23	21.9	14.2	35.9	13.5	24.6	57.9	33.6
HCM Lane LOS	C	C	B	E	B	C	F	D
HCM 95th-tile Q	2.8	3.1	0.3	5.8	0.6	3.3	9.7	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	150	23	239	169	176	57	1561	186	257	1300	49
Future Volume (veh/h)	4	150	23	239	169	176	57	1561	186	257	1300	49
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	4	180	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	4	150	0	239	169	176	57	1561	186	257	1300	0
Adj No. of Lanes	0	2	0	0	2	0	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	28	860	0	294	219	241	84	2245	76	386	2147	961
Arrive On Green	0.27	0.27	0.00	0.27	0.27	0.27	0.04	0.46	0.46	0.20	0.62	0.00
Sat Flow, veh/h	31	3265	0	955	804	884	1774	4601	547	1774	3539	1583
Grp Volume(v), veh/h	79	75	0	282	0	302	57	1150	597	257	1300	0
Grp Sat Flow(s),veh/h/ln	1601	1610	0	1127	0	1516	1774	1695	1758	1774	1770	1583
Q Serve(g_s), s	0.3	6.8	0.0	40.5	0.0	34.5	6.1	52.9	53.0	25.8	41.8	0.0
Cycle Q Clear(g_c), s	34.8	6.8	0.0	47.3	0.0	34.5	6.1	52.9	53.0	25.8	41.8	0.0
Prop In Lane	0.05		0.00	0.85		0.58	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	449	439	0	341	0	413	84	1508	814	386	2147	961
V/C Ratio(X)	0.18	0.17	0.00	0.83	0.00	0.73	0.68	0.76	0.73	0.67	0.61	0.00
Avail Cap(c_a), veh/h	539	514	0	402	0	484	121	1562	810	409	2205	986
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.3	54.5	0.0	73.0	0.0	64.8	91.3	54.9	54.9	70.2	24.0	0.0
Incr Delay (d2), s/veh	0.2	0.2	0.0	11.8	0.0	4.7	9.3	3.7	5.8	3.8	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	51.3	179.5	145.7	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	3.2	0.0	16.0	0.0	15.4	5.3	79.4	78.6	13.2	22.3	0.0
LnGrp Delay(d),s/veh	54.5	54.6	0.0	84.8	0.0	69.5	151.9	238.1	206.4	74.0	25.3	0.0
LnGrp LOS	D	D		F		E	F	F	F	E	C	
Approach Vol, veh/h		154			584			1804			1557	
Approach Delay, s/veh		54.6			76.9			224.9			33.3	
Approach LOS		D			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	42.7	92.0		56.3	11.7	123.0		56.3
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	44.0	88.0		61.0	13.0	119.0		61.0
Max Q Clear Time (g_c+I1), s	27.8	55.0		36.8	8.1	43.8		49.3
Green Ext Time (p_c), s	0.7	17.1		0.8	0.0	15.0		3.0

Intersection Summary	
HCM 2010 Ctrl Delay	124.7
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	320	57	408	283	165	66	1562	465	237	1285	65
Future Volume (veh/h)	152	320	57	408	283	165	66	1562	465	237	1285	65
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		0.96	1.00		0.96	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	152	320	57	408	283	165	66	1562	465	237	1285	65
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	398	70	465	317	389	83	1946	1074	282	2070	1081
Arrive On Green	0.10	0.13	0.13	0.14	0.17	0.17	0.05	0.55	0.55	0.08	0.58	0.58
Sat Flow, veh/h	1774	2988	525	3442	1863	1522	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	152	188	189	408	283	165	66	1562	465	237	1285	65
Grp Sat Flow(s),veh/h/ln	1774	1770	1743	1721	1863	1522	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	13.5	16.5	16.9	18.6	23.8	14.6	5.9	56.9	21.3	10.9	37.9	2.2
Cycle Q Clear(g_c), s	13.5	16.5	16.9	18.6	23.8	14.6	5.9	56.9	21.3	10.9	37.9	2.2
Prop In Lane	1.00		0.30	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	236	232	465	317	389	83	1946	1074	282	2070	1081
V/C Ratio(X)	0.87	0.80	0.82	0.88	0.89	0.42	0.79	0.80	0.43	0.84	0.62	0.06
Avail Cap(c_a), veh/h	233	287	283	624	396	453	144	1946	1074	344	2070	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	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	71.2	67.2	67.4	67.9	65.0	50.2	75.5	29.0	11.3	72.4	21.7	8.4
Incr Delay (d2), s/veh	23.2	12.0	14.1	10.7	18.8	0.7	15.3	3.6	1.3	14.4	1.4	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	7.7	8.9	9.1	9.5	13.9	6.2	3.3	28.7	9.5	5.7	18.8	1.0
LnGrp Delay(d),s/veh	94.3	79.2	81.5	78.6	83.8	50.9	90.8	32.6	12.6	86.8	23.1	8.5
LnGrp LOS	F	E	F	E	F	D	F	C	B	F	C	A
Approach Vol, veh/h		529			856			2093			1587	
Approach Delay, s/veh		84.4			75.0			30.0			32.0	
Approach LOS		F			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	17.1	92.0	25.6	25.3	11.5	97.6	19.7	31.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	88.0	29.0	26.0	13.0	91.0	21.0	34.0
Max Q Clear Time (g_c+I1), s	12.9	58.9	20.6	18.9	7.9	39.9	15.5	25.8
Green Ext Time (p_c), s	0.2	17.8	1.0	1.2	0.0	14.4	0.2	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	43.9
HCM 2010 LOS	D

Notes

User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	711	737	2096	0	0	1051
Future Volume (veh/h)	711	737	2096	0	0	1051
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	711	737	2096	0	0	1051
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	1029	833	2114	0	0	2114
Arrive On Green	0.30	0.30	0.60	0.00	0.00	0.60
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	711	737	2096	0	0	1051
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	14.6	20.2	46.8	0.0	0.0	13.6
Cycle Q Clear(g_c), s	14.6	20.2	46.8	0.0	0.0	13.6
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	1029	833	2114	0	0	2114
V/C Ratio(X)	0.69	0.88	0.99	0.00	0.00	0.50
Avail Cap(c_a), veh/h	1076	871	2114	0	0	2114
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.48	0.00	0.00	1.00
Uniform Delay (d), s/veh	24.8	26.7	15.9	0.0	0.0	9.2
Incr Delay (d2), s/veh	1.8	10.5	11.7	0.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	8.9	25.8	0.0	0.0	6.8
LnGrp Delay(d),s/veh	26.6	37.2	27.6	0.0	0.0	10.1
LnGrp LOS	C	D	C			B
Approach Vol, veh/h	1448		2096			1051
Approach Delay, s/veh	32.0		27.6			10.1
Approach LOS	C		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		51.9				51.9		28.1
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		46.7				46.7		25.0
Max Q Clear Time (g_c+I1), s		48.8				15.6		22.2
Green Ext Time (p_c), s		0.0				9.2		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	25.0
HCM 2010 LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1299	451	0	1173	1553	0
Future Volume (veh/h)	1299	451	0	1173	1553	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1299	451	0	1173	1553	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1380	635	0	1757	1757	0
Arrive On Green	0.40	0.40	0.00	0.50	0.99	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1299	451	0	1173	1553	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	29.1	19.1	0.0	20.0	2.0	0.0
Cycle Q Clear(g_c), s	29.1	19.1	0.0	20.0	2.0	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1380	635	0	1757	1757	0
V/C Ratio(X)	0.94	0.71	0.00	0.67	0.88	0.00
Avail Cap(c_a), veh/h	1415	651	0	1757	1757	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.79	0.00
Uniform Delay (d), s/veh	23.1	20.1	0.0	15.2	0.1	0.0
Incr Delay (d2), s/veh	12.2	3.0	0.0	2.0	5.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.0	8.8	0.0	10.1	1.5	0.0
LnGrp Delay(d),s/veh	35.2	23.0	0.0	17.2	5.7	0.0
LnGrp LOS	D	C		B	A	
Approach Vol, veh/h	1750			1173	1553	
Approach Delay, s/veh	32.1			17.2	5.7	
Approach LOS	C			B	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		43.8		36.2		43.8		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		38.9		32.9		38.9		
Max Q Clear Time (g_c+I1), s		22.0		31.1		4.0		
Green Ext Time (p_c), s		5.7		1.0		10.9		

Intersection Summary	
HCM 2010 Ctrl Delay	19.0
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	13.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	285	40	74	362	30	67	103	63	21	99	64
Future Vol, veh/h	31	285	40	74	362	30	67	103	63	21	99	64
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	285	40	74	362	30	67	103	63	21	99	64
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	12.7	14.5	14.2	12.9
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	29%	18%	0%	29%	0%	11%
Vol Thru, %	44%	82%	78%	71%	86%	54%
Vol Right, %	27%	0%	22%	0%	14%	35%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	233	174	183	255	211	184
LT Vol	67	31	0	74	0	21
Through Vol	103	143	143	181	181	99
RT Vol	63	0	40	0	30	64
Lane Flow Rate	233	174	182	255	211	184
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.421	0.33	0.335	0.479	0.382	0.335
Departure Headway (Hd)	6.501	6.848	6.599	6.767	6.517	6.564
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	555	526	546	536	555	546
Service Time	4.543	4.588	4.34	4.467	4.217	4.611
HCM Lane V/C Ratio	0.42	0.331	0.333	0.476	0.38	0.337
HCM Control Delay	14.2	12.9	12.6	15.5	13.2	12.9
HCM Lane LOS	B	B	B	C	B	B
HCM 95th-tile Q	2.1	1.4	1.5	2.6	1.8	1.5

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	53	783	7	8	367	67	9	6	35	93	2	79
Future Vol, veh/h	53	783	7	8	367	67	9	6	35	93	2	79
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	53	783	7	8	367	67	9	6	35	93	2	79

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	465	0	0	806	0	0	1110	1390	436	974	1360	248
Stage 1	-	-	-	-	-	-	909	909	-	448	448	-
Stage 2	-	-	-	-	-	-	201	481	-	526	912	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1093	-	-	814	-	-	164	141	568	206	147	752
Stage 1	-	-	-	-	-	-	296	352	-	560	571	-
Stage 2	-	-	-	-	-	-	782	552	-	503	351	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1065	-	-	803	-	-	132	122	549	164	127	733
Mov Cap-2 Maneuver	-	-	-	-	-	-	132	122	-	164	127	-
Stage 1	-	-	-	-	-	-	266	316	-	497	549	-
Stage 2	-	-	-	-	-	-	686	530	-	412	316	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.3	20.9	46
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	276	1065	-	-	803	-	-	252
HCM Lane V/C Ratio	0.181	0.05	-	-	0.01	-	-	0.69
HCM Control Delay (s)	20.9	8.6	0.3	-	9.5	0.1	-	46
HCM Lane LOS	C	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	0.6	0.2	-	-	0	-	-	4.6

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	77	25	63	125	1	11	1	69	4	5	0
Future Vol, veh/h	0	77	25	63	125	1	11	1	69	4	5	0
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	77	25	63	125	1	11	1	69	4	5	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	130	0	0	103	0	0	346	347	92	382	359	131
Stage 1	-	-	-	-	-	-	91	91	-	256	256	-
Stage 2	-	-	-	-	-	-	255	256	-	126	103	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1455	-	-	1489	-	-	608	576	965	576	568	919
Stage 1	-	-	-	-	-	-	916	820	-	749	696	-
Stage 2	-	-	-	-	-	-	749	696	-	878	810	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1450	-	-	1488	-	-	582	547	963	513	540	915
Mov Cap-2 Maneuver	-	-	-	-	-	-	582	547	-	513	540	-
Stage 1	-	-	-	-	-	-	915	819	-	747	662	-
Stage 2	-	-	-	-	-	-	709	662	-	813	809	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.5	9.5	11.9
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	877	1450	-	-	1488	-	-	528
HCM Lane V/C Ratio	0.092	-	-	-	0.042	-	-	0.017
HCM Control Delay (s)	9.5	0	-	-	7.5	0	-	11.9
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	64	17	77	90	2	4	10	15	5	47	25
Future Vol, veh/h	6	64	17	77	90	2	4	10	15	5	47	25
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	64	17	77	90	2	4	10	15	5	47	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	94	0	0	83	0	0	369	335	76	345	342	94
Stage 1	-	-	-	-	-	-	87	87	-	247	247	-
Stage 2	-	-	-	-	-	-	282	248	-	98	95	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1500	-	-	1514	-	-	588	585	985	609	580	963
Stage 1	-	-	-	-	-	-	921	823	-	757	702	-
Stage 2	-	-	-	-	-	-	725	701	-	908	816	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1498	-	-	1511	-	-	510	549	983	564	544	961
Mov Cap-2 Maneuver	-	-	-	-	-	-	510	549	-	564	544	-
Stage 1	-	-	-	-	-	-	915	818	-	752	663	-
Stage 2	-	-	-	-	-	-	620	662	-	879	811	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	3.4	10.3	11.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	702	1498	-	-	1511	-	-	635
HCM Lane V/C Ratio	0.041	0.004	-	-	0.051	-	-	0.121
HCM Control Delay (s)	10.3	7.4	0	-	7.5	0	-	11.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.2	-	-	0.4

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	71	9	56	157	1	9	3	16	3	6	7
Future Vol, veh/h	9	71	9	56	157	1	9	3	16	3	6	7
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	71	9	56	157	1	9	3	16	3	6	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	159	0	0	80	0	0	371	365	78	376	369	160
Stage 1	-	-	-	-	-	-	94	94	-	271	271	-
Stage 2	-	-	-	-	-	-	277	271	-	105	98	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1420	-	-	1518	-	-	586	563	983	581	560	885
Stage 1	-	-	-	-	-	-	913	817	-	735	685	-
Stage 2	-	-	-	-	-	-	729	685	-	901	814	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1419	-	-	1518	-	-	556	536	981	547	533	884
Mov Cap-2 Maneuver	-	-	-	-	-	-	556	536	-	547	533	-
Stage 1	-	-	-	-	-	-	907	811	-	729	657	-
Stage 2	-	-	-	-	-	-	687	657	-	875	808	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	2	10.1	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	735	1419	-	-	1518	-	-	649
HCM Lane V/C Ratio	0.038	0.006	-	-	0.037	-	-	0.025
HCM Control Delay (s)	10.1	7.6	0	-	7.5	0	-	10.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	101	2	33	71	2	98
Future Vol, veh/h	101	2	33	71	2	98
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	101	2	33	71	2	98

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	106	0	243	105
Stage 1	-	-	-	-	105	-
Stage 2	-	-	-	-	138	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1485	-	773	949
Stage 1	-	-	-	-	919	-
Stage 2	-	-	-	-	908	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1481	-	752	947
Mov Cap-2 Maneuver	-	-	-	-	752	-
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	887	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	942	-	-	1481	-
HCM Lane V/C Ratio	0.106	-	-	0.022	-
HCM Control Delay (s)	9.3	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	80	72	1	2	120	3	3	5	5	5	5	67
Future Vol, veh/h	80	72	1	2	120	3	3	5	5	5	5	67
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	80	72	1	2	120	3	3	5	5	5	5	67

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	125	0	0	74	0	0	397	363	74	366	362	125
Stage 1	-	-	-	-	-	-	234	234	-	128	128	-
Stage 2	-	-	-	-	-	-	163	129	-	238	234	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1462	-	-	1526	-	-	563	565	988	590	565	926
Stage 1	-	-	-	-	-	-	769	711	-	876	790	-
Stage 2	-	-	-	-	-	-	839	789	-	765	711	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1460	-	-	1525	-	-	495	531	987	556	531	924
Mov Cap-2 Maneuver	-	-	-	-	-	-	495	531	-	556	531	-
Stage 1	-	-	-	-	-	-	724	670	-	824	788	-
Stage 2	-	-	-	-	-	-	772	787	-	712	670	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4	0.1	10.8	9.7
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	633	1460	-	-	1525	-	-	847
HCM Lane V/C Ratio	0.021	0.055	-	-	0.001	-	-	0.091
HCM Control Delay (s)	10.8	7.6	0	-	7.4	0	-	9.7
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.3

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	28	6	10	35	47	4	107	24	51	169	29
Future Vol, veh/h	28	28	6	10	35	47	4	107	24	51	169	29
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	28	6	10	35	47	4	107	24	51	169	29
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	8.5	8.2	8.4	9.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	45%	11%	20%
Vol Thru, %	79%	45%	38%	68%
Vol Right, %	18%	10%	51%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	135	62	92	249
LT Vol	4	28	10	51
Through Vol	107	28	35	169
RT Vol	24	6	47	29
Lane Flow Rate	135	62	92	249
Geometry Grp	1	1	1	1
Degree of Util (X)	0.168	0.085	0.117	0.306
Departure Headway (Hd)	4.477	4.949	4.597	4.424
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	801	723	778	812
Service Time	2.507	2.988	2.633	2.45
HCM Lane V/C Ratio	0.169	0.086	0.118	0.307
HCM Control Delay	8.4	8.5	8.2	9.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.3	0.4	1.3

Intersection	
Intersection Delay, s/veh	18.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	88	23	42	71	43	160	26	230	41	48	354	58
Future Vol, veh/h	88	23	42	71	43	160	26	230	41	48	354	58
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	88	23	42	71	43	160	26	230	41	48	354	58
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	12.8	15.1	15.7	25
HCM LOS	B	C	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	58%	26%	10%
Vol Thru, %	77%	15%	16%	77%
Vol Right, %	14%	27%	58%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	297	153	274	460
LT Vol	26	88	71	48
Through Vol	230	23	43	354
RT Vol	41	42	160	58
Lane Flow Rate	297	153	274	460
Geometry Grp	1	1	1	1
Degree of Util (X)	0.512	0.292	0.479	0.755
Departure Headway (Hd)	6.208	6.871	6.298	5.911
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	579	520	570	612
Service Time	4.267	4.941	4.358	3.961
HCM Lane V/C Ratio	0.513	0.294	0.481	0.752
HCM Control Delay	15.7	12.8	15.1	25
HCM Lane LOS	C	B	C	C
HCM 95th-tile Q	2.9	1.2	2.6	6.8

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	15	64	4	17	1	78	1	2	1	3	1
Future Vol, veh/h	1	15	64	4	17	1	78	1	2	1	3	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	15	64	4	17	1	78	1	2	1	3	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	18	0	0	80	0	0	78	76	48	77	108	18
Stage 1	-	-	-	-	-	-	50	50	-	26	26	-
Stage 2	-	-	-	-	-	-	28	26	-	51	82	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1599	-	-	1518	-	-	911	814	1021	912	782	1061
Stage 1	-	-	-	-	-	-	963	853	-	992	874	-
Stage 2	-	-	-	-	-	-	989	874	-	962	827	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1599	-	-	1517	-	-	904	810	1020	907	778	1061
Mov Cap-2 Maneuver	-	-	-	-	-	-	904	810	-	907	778	-
Stage 1	-	-	-	-	-	-	961	851	-	991	871	-
Stage 2	-	-	-	-	-	-	982	871	-	958	825	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.3	9.4	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	905	1599	-	-	1517	-	-	847
HCM Lane V/C Ratio	0.09	0.001	-	-	0.003	-	-	0.006
HCM Control Delay (s)	9.4	7.3	0	-	7.4	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	20	21	1016	766	50
Future Vol, veh/h	40	20	21	1016	766	50
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	20	21	1016	766	50

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1827	769	819	0	-	0
Stage 1	769	-	-	-	-	-
Stage 2	1058	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	84	401	810	-	-	-
Stage 1	457	-	-	-	-	-
Stage 2	334	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	79	400	808	-	-	-
Mov Cap-2 Maneuver	260	-	-	-	-	-
Stage 1	429	-	-	-	-	-
Stage 2	333	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.4	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	808	-	294	-	-
HCM Lane V/C Ratio	0.026	-	0.204	-	-
HCM Control Delay (s)	9.6	0	20.4	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.8	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	285	22	372	512	0	616
Future Volume (veh/h)	285	22	372	512	0	616
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	285	22	372	0	0	616
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	358	28	1431	0	0	1431
Arrive On Green	0.22	0.22	0.40	0.00	0.00	0.40
Sat Flow, veh/h	1628	126	3725	0	0	3725
Grp Volume(v), veh/h	308	0	372	0	0	616
Grp Sat Flow(s),veh/h/ln	1759	0	1770	0	0	1770
Q Serve(g_s), s	3.3	0.0	1.4	0.0	0.0	2.5
Cycle Q Clear(g_c), s	3.3	0.0	1.4	0.0	0.0	2.5
Prop In Lane	0.93	0.07		0.00	0.00	
Lane Grp Cap(c), veh/h	387	0	1431	0	0	1431
V/C Ratio(X)	0.80	0.00	0.26	0.00	0.00	0.43
Avail Cap(c_a), veh/h	1145	0	3457	0	0	3457
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	7.4	0.0	4.0	0.0	0.0	4.3
Incr Delay (d2), s/veh	1.4	0.0	0.1	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.7	0.0	0.0	1.2
LnGrp Delay(d),s/veh	8.8	0.0	4.1	0.0	0.0	4.5
LnGrp LOS	A		A			A
Approach Vol, veh/h	308		372			616
Approach Delay, s/veh	8.8		4.1			4.5
Approach LOS	A		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		12.6		7.4		12.6		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		19.5		13.0		19.5		
Max Q Clear Time (g_c+I1), s		3.4		5.3		4.5		
Green Ext Time (p_c), s		2.5		0.1		3.6		

Intersection Summary	
HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	345	300	14	419	84	175	167	13	68	317	76
Future Volume (veh/h)	47	345	300	14	419	84	175	167	13	68	317	76
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.91	0.99		0.91	1.00		0.96	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	47	345	300	14	419	84	175	167	13	68	317	76
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	151	1023	929	53	1073	209	218	208	358	83	386	388
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.23	0.23	0.23	0.25	0.25	0.25
Sat Flow, veh/h	268	2646	1443	36	2776	541	929	887	1527	326	1520	1530
Grp Volume(v), veh/h	179	213	300	278	0	239	342	0	13	385	0	76
Grp Sat Flow(s),veh/h/ln	1304	1610	1443	1813	0	1540	1816	0	1527	1846	0	1530
Q Serve(g_s), s	1.6	8.9	9.5	0.0	0.0	10.8	17.0	0.0	0.6	18.8	0.0	3.7
Cycle Q Clear(g_c), s	12.4	8.9	9.5	10.3	0.0	10.8	17.0	0.0	0.6	18.8	0.0	3.7
Prop In Lane	0.26		1.00	0.05		0.35	0.51		1.00	0.18		1.00
Lane Grp Cap(c), veh/h	551	622	929	740	0	595	426	0	358	469	0	388
V/C Ratio(X)	0.32	0.34	0.32	0.38	0.00	0.40	0.80	0.00	0.04	0.82	0.00	0.20
Avail Cap(c_a), veh/h	551	622	929	740	0	595	740	0	622	810	0	671
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.5	20.8	8.7	21.2	0.0	21.3	34.6	0.0	28.3	33.7	0.0	28.0
Incr Delay (d2), s/veh	1.6	1.5	0.9	1.5	0.0	2.0	3.6	0.0	0.0	3.6	0.0	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	3.8	4.2	6.3	5.6	0.0	4.9	9.0	0.0	0.3	10.1	0.0	1.6
LnGrp Delay(d),s/veh	22.0	22.3	9.6	22.6	0.0	23.3	38.2	0.0	28.3	37.3	0.0	28.3
LnGrp LOS	C	C	A	C		C	D		C	D		C
Approach Vol, veh/h		692			517			355			461	
Approach Delay, s/veh		16.7			23.0			37.8			35.8	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		41.0		26.4		41.0		28.3
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		37.0		39.0		37.0		42.0
Max Q Clear Time (g_c+I1), s		14.4		19.0		12.8		20.8
Green Ext Time (p_c), s		3.7		2.2		3.4		2.7

Intersection Summary	
HCM 2010 Ctrl Delay	26.4
HCM 2010 LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	405	308	391	642	423	360
Future Volume (veh/h)	405	308	391	642	423	360
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	405	308	391	642	423	360
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	431	1258	748	1028	461	797
Arrive On Green	0.24	0.68	0.40	0.40	0.26	0.26
Sat Flow, veh/h	1774	1863	1863	1534	1774	1583
Grp Volume(v), veh/h	405	308	391	642	423	360
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1534	1774	1583
Q Serve(g_s), s	29.1	8.4	20.7	31.7	30.1	19.0
Cycle Q Clear(g_c), s	29.1	8.4	20.7	31.7	30.1	19.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	431	1258	748	1028	461	797
V/C Ratio(X)	0.94	0.24	0.52	0.62	0.92	0.45
Avail Cap(c_a), veh/h	573	1258	748	1028	598	918
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	48.2	8.2	29.5	12.8	46.7	20.8
Incr Delay (d2), s/veh	17.9	0.5	2.6	2.9	15.5	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.4	4.4	11.2	23.8	16.8	19.5
LnGrp Delay(d),s/veh	66.1	8.7	32.1	15.7	62.2	21.1
LnGrp LOS	E	A	C	B	E	C
Approach Vol, veh/h		713	1033		783	
Approach Delay, s/veh		41.3	21.9		43.3	
Approach LOS		D	C		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		92.0		38.0	35.6	56.4		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 88		* 44	42.0	* 42		
Max Q Clear Time (g_c+I1), s		10.4		32.1	31.1	33.7		
Green Ext Time (p_c), s		1.3		1.7	0.5	2.2		

Intersection Summary	
HCM 2010 Ctrl Delay	34.0
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	16	3	45	20	218	2	943	61	137	772	45
Future Volume (veh/h)	59	16	3	45	20	218	2	943	61	137	772	45
Number	7	4	14	3	8	18	1	6	16	5	2	12
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		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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	59	16	3	45	20	218	2	943	61	137	772	45
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	118	28	4	158	63	898	26	1105	71	808	2785	162
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.34	0.34	0.34	0.46	0.82	0.82
Sat Flow, veh/h	632	243	35	997	546	1547	1	3298	213	1774	3399	198
Grp Volume(v), veh/h	78	0	0	65	0	218	533	0	473	137	402	415
Grp Sat Flow(s),veh/h/ln	910	0	0	1543	0	1547	1861	0	1651	1774	1770	1828
Q Serve(g_s), s	7.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.4	6.4	7.4	7.4
Cycle Q Clear(g_c), s	12.9	0.0	0.0	5.3	0.0	0.0	37.3	0.0	37.4	6.4	7.4	7.4
Prop In Lane	0.76		0.04	0.69		1.00	0.00		0.13	1.00		0.11
Lane Grp Cap(c), veh/h	150	0	0	221	0	898	649	0	553	808	1450	1498
V/C Ratio(X)	0.52	0.00	0.00	0.29	0.00	0.24	0.82	0.00	0.86	0.17	0.28	0.28
Avail Cap(c_a), veh/h	277	0	0	374	0	1057	993	0	860	808	1450	1498
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	0.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	62.2	0.0	0.0	57.1	0.0	15.0	43.4	0.0	43.4	22.5	3.0	3.0
Incr Delay (d2), s/veh	2.1	0.0	0.0	0.5	0.0	0.1	11.2	0.0	15.5	0.0	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	0.0	2.4	0.0	4.1	21.3	0.0	19.5	3.1	3.7	3.8
LnGrp Delay(d),s/veh	64.3	0.0	0.0	57.7	0.0	15.1	54.5	0.0	58.9	22.5	3.3	3.3
LnGrp LOS	E			E		B	D		E	C	A	A
Approach Vol, veh/h		78			283			1006			954	
Approach Delay, s/veh		64.3			24.9			56.6			6.1	
Approach LOS		E			C			E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		119.3		20.7	68.3	51.0		20.7
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		100.4		30.4	23.9	* 73		30.4
Max Q Clear Time (g_c+I1), s		9.4		14.9	8.4	39.4		7.3
Green Ext Time (p_c), s		6.3		0.3	0.1	7.5		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	32.2
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	563	801	1377	317	270	557
Future Volume (veh/h)	563	801	1377	317	270	557
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	563	801	1377	317	270	557
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	681	3467	1742	400	354	1108
Arrive On Green	0.20	0.68	0.42	0.42	0.20	0.20
Sat Flow, veh/h	3442	5253	4272	943	1774	2787
Grp Volume(v), veh/h	563	801	1137	557	270	557
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1656	1774	1393
Q Serve(g_s), s	10.6	4.0	19.6	19.7	9.7	10.2
Cycle Q Clear(g_c), s	10.6	4.0	19.6	19.7	9.7	10.2
Prop In Lane	1.00			0.57	1.00	1.00
Lane Grp Cap(c), veh/h	681	3467	1439	703	354	1108
V/C Ratio(X)	0.83	0.23	0.79	0.79	0.76	0.50
Avail Cap(c_a), veh/h	816	3467	1439	703	421	1212
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	25.9	4.1	16.8	16.8	25.5	15.3
Incr Delay (d2), s/veh	6.0	0.2	4.5	8.9	6.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	1.9	10.1	10.7	5.4	3.9
LnGrp Delay(d),s/veh	32.0	4.2	21.3	25.7	32.2	15.7
LnGrp LOS	C	A	C	C	C	B
Approach Vol, veh/h		1364	1694		827	
Approach Delay, s/veh		15.7	22.8		21.1	
Approach LOS		B	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	17.4	32.6				50.0		17.5
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	26.0				46.0		16.0
Max Q Clear Time (g_c+I1), s	12.6	21.7				6.0		12.2
Green Ext Time (p_c), s	0.8	3.5				6.4		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	19.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	485	25	94	69	31	66	186	958	67	26	748	335
Future Volume (veh/h)	485	25	94	69	31	66	186	958	67	26	748	335
Number	3	8	18	7	4	14	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		0.97	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	503	0	94	69	31	66	186	958	67	26	748	335
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	622	0	276	163	48	103	124	1927	985	36	1752	1041
Arrive On Green	0.18	0.00	0.18	0.09	0.09	0.09	0.07	0.54	0.54	0.02	0.49	0.49
Sat Flow, veh/h	3548	0	1573	1774	526	1121	1774	3539	1543	1774	3539	1543
Grp Volume(v), veh/h	503	0	94	69	0	97	186	958	67	26	748	335
Grp Sat Flow(s),veh/h/ln	1774	0	1573	1774	0	1647	1774	1770	1543	1774	1770	1543
Q Serve(g_s), s	13.6	0.0	5.2	3.7	0.0	5.7	7.0	16.9	1.7	1.5	13.5	9.1
Cycle Q Clear(g_c), s	13.6	0.0	5.2	3.7	0.0	5.7	7.0	16.9	1.7	1.5	13.5	9.1
Prop In Lane	1.00		1.00	1.00		0.68	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	622	0	276	163	0	151	124	1927	985	36	1752	1041
V/C Ratio(X)	0.81	0.00	0.34	0.42	0.00	0.64	1.50	0.50	0.07	0.71	0.43	0.32
Avail Cap(c_a), veh/h	958	0	425	479	0	445	124	1927	985	71	1752	1041
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	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	0.0	36.2	42.9	0.0	43.8	46.5	14.2	6.9	48.7	16.2	6.9
Incr Delay (d2), s/veh	2.4	0.0	0.5	1.3	0.0	3.4	257.4	0.8	0.1	9.2	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	0.0	2.3	1.9	0.0	2.7	12.3	8.5	0.9	0.8	6.7	6.2
LnGrp Delay(d),s/veh	42.0	0.0	36.7	44.2	0.0	47.2	303.9	15.0	7.0	57.8	16.9	7.8
LnGrp LOS	D		D	D		D	F	B	A	E	B	A
Approach Vol, veh/h		597			166			1211			1109	
Approach Delay, s/veh		41.2			46.0			59.0			15.1	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.1	59.0		13.4	11.0	54.1		21.5
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.0	4.6		4.0
Max Green Setting (Gmax), s	4.0	25.2		* 27	7.0	22.2		27.0
Max Q Clear Time (g_c+I1), s	3.5	18.9		7.7	9.0	15.5		15.6
Green Ext Time (p_c), s	0.0	4.6		0.5	0.0	4.8		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	39.0
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	36.1
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	379	86	182	245	21	87	147	220	39	123	28
Future Vol, veh/h	45	379	86	182	245	21	87	147	220	39	123	28
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	45	379	86	182	245	21	87	147	220	39	123	28
Number of Lanes	1	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	3
HCM Control Delay	56.9	28.3	25	25.2
HCM LOS	F	D	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1
Vol Left, %	37%	0%	100%	0%	0%	100%	0%	21%
Vol Thru, %	63%	0%	0%	100%	0%	0%	92%	65%
Vol Right, %	0%	100%	0%	0%	100%	0%	8%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	234	220	45	379	86	182	266	190
LT Vol	87	0	45	0	0	182	0	39
Through Vol	147	0	0	379	0	0	245	123
RT Vol	0	220	0	0	86	0	21	28
Lane Flow Rate	234	220	45	379	86	182	266	190
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.636	0.541	0.123	0.98	0.205	0.511	0.703	0.549
Departure Headway (Hd)	9.777	8.857	9.828	9.309	8.581	10.103	9.52	10.397
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	370	407	366	390	419	359	380	348
Service Time	7.515	6.595	7.564	7.044	6.316	7.843	7.259	8.157
HCM Lane V/C Ratio	0.632	0.541	0.123	0.972	0.205	0.507	0.7	0.546
HCM Control Delay	28.2	21.6	13.9	71.9	13.5	23	32	25.2
HCM Lane LOS	D	C	B	F	B	C	D	D
HCM 95th-tile Q	4.2	3.1	0.4	11.4	0.8	2.8	5.2	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	158	32	238	121	255	46	1198	125	145	1384	20
Future Volume (veh/h)	21	158	32	238	121	255	46	1198	125	145	1384	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	85	0	0	140	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	21	158	0	238	121	255	46	1198	125	145	1384	0
Adj No. of Lanes	0	2	0	0	2	0	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	36	601	0	130	697	181	59	2374	158	214	2005	897
Arrive On Green	0.30	0.30	0.00	0.30	0.30	0.30	0.03	0.51	0.51	0.13	0.60	0.00
Sat Flow, veh/h	157	2264	0	873	501	1188	1774	4672	487	1774	3539	1583
Grp Volume(v), veh/h	74	105	0	302	0	312	46	869	454	145	1384	0
Grp Sat Flow(s),veh/h/ln	726	1610	0	1106	0	1455	1774	1695	1770	1774	1770	1583
Q Serve(g_s), s	1.9	8.9	0.0	40.7	0.0	35.0	4.7	31.3	31.3	14.3	47.4	0.0
Cycle Q Clear(g_c), s	36.9	8.9	0.0	49.6	0.0	35.0	4.7	31.3	31.3	14.3	47.4	0.0
Prop In Lane	0.28		0.00	0.79		0.82	1.00		0.28	1.00		1.00
Lane Grp Cap(c), veh/h	36	545	0	487	0	532	59	1644	878	214	2005	897
V/C Ratio(X)	2.06	0.19	0.00	0.62	0.00	0.59	0.78	0.53	0.52	0.68	0.69	0.00
Avail Cap(c_a), veh/h	370	622	0	480	0	562	116	1715	895	280	2118	947
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	99.8	46.5	0.0	71.0	0.0	61.4	93.3	42.3	40.9	81.9	30.2	0.0
Incr Delay (d2), s/veh	496.8	0.2	0.0	2.5	0.0	1.5	19.8	1.2	2.2	4.2	2.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	144.3	0.0	111.3	0.0	49.2	42.1	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	5.5	0.0	45.4	0.0	42.0	2.8	41.3	40.8	7.7	27.0	0.0
LnGrp Delay(d),s/veh	596.7	46.7	0.0	217.8	0.0	174.2	113.1	92.8	85.2	86.1	32.2	0.0
LnGrp LOS	F	D		F		F	F	F	F	F	C	
Approach Vol, veh/h		179			614			1369			1529	
Approach Delay, s/veh		274.9			195.6			91.0			37.3	
Approach LOS		F			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	27.1	97.0		59.7	10.1	114.0		59.7
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	29.0	93.0		71.0	12.0	110.0		71.0
Max Q Clear Time (g_c+I1), s	16.3	33.3		38.9	6.7	49.4		51.6
Green Ext Time (p_c), s	0.3	13.3		1.1	0.0	16.4		4.1

Intersection Summary	
HCM 2010 Ctrl Delay	95.1
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	334	26	509	296	293	70	1030	478	258	1333	69
Future Volume (veh/h)	129	334	26	509	296	293	70	1030	478	258	1333	69
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		0.96	1.00		0.97	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	129	334	26	509	296	293	70	1030	478	258	1333	69
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	410	32	588	384	470	89	1704	1023	337	1872	977
Arrive On Green	0.09	0.12	0.12	0.17	0.21	0.21	0.05	0.48	0.48	0.10	0.53	0.53
Sat Flow, veh/h	1774	3316	256	3442	1863	1529	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	129	177	183	509	296	293	70	1030	478	258	1333	69
Grp Sat Flow(s),veh/h/ln	1774	1770	1803	1721	1863	1529	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	9.1	12.4	12.5	18.2	19.0	6.1	4.9	27.0	8.7	9.3	36.1	2.2
Cycle Q Clear(g_c), s	9.1	12.4	12.5	18.2	19.0	6.1	4.9	27.0	8.7	9.3	36.1	2.2
Prop In Lane	1.00		0.14	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	157	219	223	588	384	470	89	1704	1023	337	1872	977
V/C Ratio(X)	0.82	0.81	0.82	0.87	0.77	0.62	0.78	0.60	0.47	0.77	0.71	0.07
Avail Cap(c_a), veh/h	238	293	299	815	500	565	154	1704	1023	462	1872	977
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	56.8	54.1	54.1	51.1	47.5	23.1	59.5	24.0	3.7	55.7	22.6	9.7
Incr Delay (d2), s/veh	12.9	11.6	12.4	7.3	5.4	1.5	13.7	1.6	1.5	5.2	2.3	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	5.0	6.8	7.0	9.3	10.4	8.3	2.8	13.5	4.1	4.6	18.2	1.0
LnGrp Delay(d),s/veh	69.7	65.7	66.5	58.4	52.9	24.7	73.2	25.6	5.3	60.9	24.9	9.8
LnGrp LOS	E	E	E	E	D	C	E	C	A	E	C	A
Approach Vol, veh/h		489			1098			1578			1660	
Approach Delay, s/veh		67.1			47.9			21.6			29.9	
Approach LOS		E			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	16.4	65.0	25.6	19.7	10.4	71.0	15.2	30.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	61.0	30.0	21.0	11.0	67.0	17.0	34.0
Max Q Clear Time (g_c+I1), s	11.3	29.0	20.2	14.5	6.9	38.1	11.1	21.0
Green Ext Time (p_c), s	0.4	11.8	1.4	1.1	0.0	12.7	0.1	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	35.0
HCM 2010 LOS	D

Notes

User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	508	294	2123	0	0	987
Future Volume (veh/h)	508	294	2123	0	0	987
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	508	294	2123	0	0	987
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	676	548	2477	0	0	2477
Arrive On Green	0.20	0.20	0.70	0.00	0.00	0.70
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	508	294	2123	0	0	987
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	11.1	7.6	36.0	0.0	0.0	9.3
Cycle Q Clear(g_c), s	11.1	7.6	36.0	0.0	0.0	9.3
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	676	548	2477	0	0	2477
V/C Ratio(X)	0.75	0.54	0.86	0.00	0.00	0.40
Avail Cap(c_a), veh/h	1076	871	2477	0	0	2477
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.51	0.00	0.00	1.00
Uniform Delay (d), s/veh	30.3	28.9	9.0	0.0	0.0	5.0
Incr Delay (d2), s/veh	1.7	0.8	2.2	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	3.0	17.8	0.0	0.0	4.7
LnGrp Delay(d),s/veh	32.0	29.7	11.2	0.0	0.0	5.5
LnGrp LOS	C	C	B			A
Approach Vol, veh/h	802		2123			987
Approach Delay, s/veh	31.2		11.2			5.5
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		60.1				60.1		19.9
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		46.7				46.7		25.0
Max Q Clear Time (g_c+I1), s		38.0				11.3		13.1
Green Ext Time (p_c), s		7.7				8.7		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	13.8
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1371	403	0	1077	970	0
Future Volume (veh/h)	1371	403	0	1077	970	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1371	403	0	1077	970	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1502	691	0	1632	1632	0
Arrive On Green	0.44	0.44	0.00	0.46	0.92	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1371	403	0	1077	970	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	29.9	15.4	0.0	18.9	3.8	0.0
Cycle Q Clear(g_c), s	29.9	15.4	0.0	18.9	3.8	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1502	691	0	1632	1632	0
V/C Ratio(X)	0.91	0.58	0.00	0.66	0.59	0.00
Avail Cap(c_a), veh/h	1717	790	0	1632	1632	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.86	0.00
Uniform Delay (d), s/veh	21.1	17.0	0.0	16.7	1.8	0.0
Incr Delay (d2), s/veh	6.7	0.4	0.0	2.1	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.5	6.8	0.0	9.6	1.6	0.0
LnGrp Delay(d),s/veh	27.9	17.4	0.0	18.8	3.2	0.0
LnGrp LOS	C	B		B	A	
Approach Vol, veh/h	1774			1077	970	
Approach Delay, s/veh	25.5			18.8	3.2	
Approach LOS	C			B	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		41.0		39.0		41.0		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		31.9		39.9		31.9		
Max Q Clear Time (g_c+I1), s		20.9		31.9		5.8		
Green Ext Time (p_c), s		4.2		3.1		5.2		

Intersection Summary	
HCM 2010 Ctrl Delay	17.9
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	14.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	446	75	48	274	23	46	68	62	28	97	76
Future Vol, veh/h	59	446	75	48	274	23	46	68	62	28	97	76
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	446	75	48	274	23	46	68	62	28	97	76
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	15.8	12.8	12.9	13.3
HCM LOS	C	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	26%	21%	0%	26%	0%	14%
Vol Thru, %	39%	79%	75%	74%	86%	48%
Vol Right, %	35%	0%	25%	0%	14%	38%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	176	282	298	185	160	201
LT Vol	46	59	0	48	0	28
Through Vol	68	223	223	137	137	97
RT Vol	62	0	75	0	23	76
Lane Flow Rate	176	282	298	185	160	201
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.325	0.515	0.52	0.354	0.296	0.365
Departure Headway (Hd)	6.654	6.572	6.286	6.895	6.659	6.54
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	540	553	578	522	539	551
Service Time	4.694	4.272	3.986	4.633	4.398	4.58
HCM Lane V/C Ratio	0.326	0.51	0.516	0.354	0.297	0.365
HCM Control Delay	12.9	16	15.6	13.4	12.2	13.3
HCM Lane LOS	B	C	C	B	B	B
HCM 95th-tile Q	1.4	2.9	3	1.6	1.2	1.7

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	79	639	18	20	606	48	5	2	17	65	0	75
Future Vol, veh/h	79	639	18	20	606	48	5	2	17	65	0	75
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	79	639	18	20	606	48	5	2	17	65	0	75

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	685	0	0	673	0	0	1165	1547	370	1205	1532	358
Stage 1	-	-	-	-	-	-	822	822	-	701	701	-
Stage 2	-	-	-	-	-	-	343	725	-	504	831	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	904	-	-	914	-	-	149	113	627	140	116	638
Stage 1	-	-	-	-	-	-	334	386	-	395	439	-
Stage 2	-	-	-	-	-	-	646	428	-	518	383	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	881	-	-	902	-	-	112	90	606	111	92	622
Mov Cap-2 Maneuver	-	-	-	-	-	-	112	90	-	111	92	-
Stage 1	-	-	-	-	-	-	283	327	-	330	413	-
Stage 2	-	-	-	-	-	-	548	402	-	420	324	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.4	20.7	57.9
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	253	881	-	-	902	-	-	198
HCM Lane V/C Ratio	0.095	0.09	-	-	0.022	-	-	0.707
HCM Control Delay (s)	20.7	9.5	0.5	-	9.1	0.1	-	57.9
HCM Lane LOS	C	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.3	0.3	-	-	0.1	-	-	4.5

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	70	11	8	86	2	14	2	14	5	0	1
Future Vol, veh/h	1	70	11	8	86	2	14	2	14	5	0	1
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	70	11	8	86	2	14	2	14	5	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	92	0	0	82	0	0	184	187	78	194	191	92
Stage 1	-	-	-	-	-	-	79	79	-	107	107	-
Stage 2	-	-	-	-	-	-	105	108	-	87	84	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1503	-	-	1515	-	-	777	708	983	765	704	965
Stage 1	-	-	-	-	-	-	930	829	-	898	807	-
Stage 2	-	-	-	-	-	-	901	806	-	921	825	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1498	-	-	1514	-	-	771	700	981	745	696	961
Mov Cap-2 Maneuver	-	-	-	-	-	-	771	700	-	745	696	-
Stage 1	-	-	-	-	-	-	928	827	-	894	800	-
Stage 2	-	-	-	-	-	-	894	799	-	904	823	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.6	9.4	9.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	850	1498	-	-	1514	-	-	774
HCM Lane V/C Ratio	0.035	0.001	-	-	0.005	-	-	0.008
HCM Control Delay (s)	9.4	7.4	0	-	7.4	0	-	9.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	37	6	9	54	9	16	14	18	5	31	7
Future Vol, veh/h	7	37	6	9	54	9	16	14	18	5	31	7
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	37	6	9	54	9	16	14	18	5	31	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	65	0	0	45	0	0	153	139	43	150	138	62
Stage 1	-	-	-	-	-	-	56	56	-	79	79	-
Stage 2	-	-	-	-	-	-	97	83	-	71	59	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1537	-	-	1563	-	-	814	752	1027	818	753	1003
Stage 1	-	-	-	-	-	-	956	848	-	930	829	-
Stage 2	-	-	-	-	-	-	910	826	-	939	846	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1534	-	-	1560	-	-	774	741	1024	784	742	1000
Mov Cap-2 Maneuver	-	-	-	-	-	-	774	741	-	784	742	-
Stage 1	-	-	-	-	-	-	949	842	-	923	822	-
Stage 2	-	-	-	-	-	-	864	819	-	902	840	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.9	9.5	9.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	840	1534	-	-	1560	-	-	780
HCM Lane V/C Ratio	0.057	0.005	-	-	0.006	-	-	0.055
HCM Control Delay (s)	9.5	7.4	0	-	7.3	0	-	9.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	43	2	13	52	2	7	11	13	1	3	5
Future Vol, veh/h	1	43	2	13	52	2	7	11	13	1	3	5
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	43	2	13	52	2	7	11	13	1	3	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	55	0	0	45	0	0	130	127	46	140	127	55
Stage 1	-	-	-	-	-	-	46	46	-	80	80	-
Stage 2	-	-	-	-	-	-	84	81	-	60	47	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1550	-	-	1563	-	-	843	764	1023	830	764	1012
Stage 1	-	-	-	-	-	-	968	857	-	929	828	-
Stage 2	-	-	-	-	-	-	924	828	-	951	856	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1549	-	-	1563	-	-	830	756	1021	802	756	1010
Mov Cap-2 Maneuver	-	-	-	-	-	-	830	756	-	802	756	-
Stage 1	-	-	-	-	-	-	967	856	-	927	820	-
Stage 2	-	-	-	-	-	-	907	820	-	924	855	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.4	9.3	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	868	1549	-	-	1563	-	-	885
HCM Lane V/C Ratio	0.036	0.001	-	-	0.008	-	-	0.01
HCM Control Delay (s)	9.3	7.3	0	-	7.3	0	-	9.1
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	43	0	18	42	3	36
Future Vol, veh/h	43	0	18	42	3	36
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	0	18	42	3	36

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	46	0	125	46
Stage 1	-	-	-	-	46	-
Stage 2	-	-	-	-	79	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1562	-	870	1023
Stage 1	-	-	-	-	976	-
Stage 2	-	-	-	-	944	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1558	-	857	1020
Mov Cap-2 Maneuver	-	-	-	-	857	-
Stage 1	-	-	-	-	974	-
Stage 2	-	-	-	-	932	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1005	-	-	1558	-
HCM Lane V/C Ratio	0.039	-	-	0.012	-
HCM Control Delay (s)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	47	8	5	62	4	2	4	3	2	3	35
Future Vol, veh/h	35	47	8	5	62	4	2	4	3	2	3	35
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	35	47	8	5	62	4	2	4	3	2	3	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	68	0	0	56	0	0	216	200	52	201	202	67
Stage 1	-	-	-	-	-	-	122	122	-	76	76	-
Stage 2	-	-	-	-	-	-	94	78	-	125	126	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1533	-	-	1549	-	-	740	696	1016	757	694	997
Stage 1	-	-	-	-	-	-	882	795	-	933	832	-
Stage 2	-	-	-	-	-	-	913	830	-	879	792	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1530	-	-	1548	-	-	696	675	1015	735	673	995
Mov Cap-2 Maneuver	-	-	-	-	-	-	696	675	-	735	673	-
Stage 1	-	-	-	-	-	-	860	775	-	909	828	-
Stage 2	-	-	-	-	-	-	874	826	-	851	772	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.9	0.5	9.8	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	766	1530	-	-	1548	-	-	944
HCM Lane V/C Ratio	0.012	0.023	-	-	0.003	-	-	0.042
HCM Control Delay (s)	9.8	7.4	0	-	7.3	0	-	9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	18	6	21	38	49	5	136	15	73	170	43
Future Vol, veh/h	31	18	6	21	38	49	5	136	15	73	170	43
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	18	6	21	38	49	5	136	15	73	170	43
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	8.6	8.6	8.8	10
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	56%	19%	26%
Vol Thru, %	87%	33%	35%	59%
Vol Right, %	10%	11%	45%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	156	55	108	286
LT Vol	5	31	21	73
Through Vol	136	18	38	170
RT Vol	15	6	49	43
Lane Flow Rate	156	55	108	286
Geometry Grp	1	1	1	1
Degree of Util (X)	0.2	0.078	0.143	0.356
Departure Headway (Hd)	4.605	5.132	4.78	4.475
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	778	695	747	804
Service Time	2.643	3.186	2.828	2.508
HCM Lane V/C Ratio	0.201	0.079	0.145	0.356
HCM Control Delay	8.8	8.6	8.6	10
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.3	0.5	1.6

Intersection	
Intersection Delay, s/veh	20.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	89	48	32	29	32	98	13	207	49	92	363	92
Future Vol, veh/h	89	48	32	29	32	98	13	207	49	92	363	92
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	89	48	32	29	32	98	13	207	49	92	363	92
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	12.6	11.8	13.4	28.1
HCM LOS	B	B	B	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	53%	18%	17%
Vol Thru, %	77%	28%	20%	66%
Vol Right, %	18%	19%	62%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	269	169	159	547
LT Vol	13	89	29	92
Through Vol	207	48	32	363
RT Vol	49	32	98	92
Lane Flow Rate	269	169	159	547
Geometry Grp	1	1	1	1
Degree of Util (X)	0.44	0.31	0.279	0.816
Departure Headway (Hd)	5.885	6.597	6.315	5.477
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	616	546	571	667
Service Time	3.885	4.622	4.342	3.477
HCM Lane V/C Ratio	0.437	0.31	0.278	0.82
HCM Control Delay	13.4	12.6	11.8	28.1
HCM Lane LOS	B	B	B	D
HCM 95th-tile Q	2.2	1.3	1.1	8.5

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	11	86	1	11	0	130	3	4	0	0	0
Future Vol, veh/h	2	11	86	1	11	0	130	3	4	0	0	0
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	11	86	1	11	0	130	3	4	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	11	0	0	98	0	0	72	72	55	75	115	11
Stage 1	-	-	-	-	-	-	59	59	-	13	13	-
Stage 2	-	-	-	-	-	-	13	13	-	62	102	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1608	-	-	1495	-	-	919	818	1012	915	775	1070
Stage 1	-	-	-	-	-	-	953	846	-	1007	885	-
Stage 2	-	-	-	-	-	-	1007	885	-	949	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1608	-	-	1494	-	-	917	816	1011	908	773	1070
Mov Cap-2 Maneuver	-	-	-	-	-	-	917	816	-	908	773	-
Stage 1	-	-	-	-	-	-	951	844	-	1006	884	-
Stage 2	-	-	-	-	-	-	1006	884	-	941	809	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.6	9.6	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	917	1608	-	-	1494	-	-	-
HCM Lane V/C Ratio	0.149	0.001	-	-	0.001	-	-	-
HCM Control Delay (s)	9.6	7.2	0	-	7.4	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	47	23	12	958	633	127
Future Vol, veh/h	47	23	12	958	633	127
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	23	12	958	633	127

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1618	636	763	0	-	0
Stage 1	636	-	-	-	-	-
Stage 2	982	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	114	478	850	-	-	-
Stage 1	527	-	-	-	-	-
Stage 2	363	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	110	477	848	-	-	-
Mov Cap-2 Maneuver	297	-	-	-	-	-
Stage 1	510	-	-	-	-	-
Stage 2	362	-	-	-	-	-

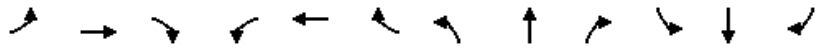
Approach	EB	NB	SB
HCM Control Delay, s	18.4	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	848	-	339	-	-
HCM Lane V/C Ratio	0.014	-	0.206	-	-
HCM Control Delay (s)	9.3	0	18.4	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.8	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	444	12	377	425	0	866
Future Volume (veh/h)	444	12	377	425	0	866
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	444	12	377	0	0	866
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	529	14	1478	0	0	1478
Arrive On Green	0.31	0.31	0.42	0.00	0.00	0.42
Sat Flow, veh/h	1718	46	3725	0	0	3725
Grp Volume(v), veh/h	457	0	377	0	0	866
Grp Sat Flow(s),veh/h/ln	1769	0	1770	0	0	1770
Q Serve(g_s), s	6.6	0.0	1.9	0.0	0.0	5.2
Cycle Q Clear(g_c), s	6.6	0.0	1.9	0.0	0.0	5.2
Prop In Lane	0.97	0.03		0.00	0.00	
Lane Grp Cap(c), veh/h	544	0	1478	0	0	1478
V/C Ratio(X)	0.84	0.00	0.26	0.00	0.00	0.59
Avail Cap(c_a), veh/h	972	0	2268	0	0	2268
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	8.8	0.0	5.2	0.0	0.0	6.1
Incr Delay (d2), s/veh	1.4	0.0	0.1	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.9	0.0	0.0	2.5
LnGrp Delay(d),s/veh	10.2	0.0	5.3	0.0	0.0	6.6
LnGrp LOS	B		A			A
Approach Vol, veh/h	457		377			866
Approach Delay, s/veh	10.2		5.3			6.6
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		15.9		11.4		15.9		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		17.5		15.0		17.5		
Max Q Clear Time (g_c+I1), s		3.9		8.6		7.2		
Green Ext Time (p_c), s		2.3		0.1		4.3		

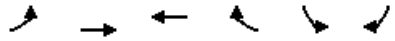
Intersection Summary	
HCM 2010 Ctrl Delay	7.3
HCM 2010 LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	363	490	17	258	69	149	215	17	65	350	16
Future Volume (veh/h)	39	363	490	17	258	69	149	215	17	65	350	16
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.91	0.99		0.91	1.00		0.97	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	39	363	490	17	258	69	149	215	17	65	350	16
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	1100	905	70	899	231	183	264	375	78	417	410
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.25	0.25	0.25	0.27	0.27	0.27
Sat Flow, veh/h	230	3054	1435	79	2496	643	747	1078	1529	289	1559	1532
Grp Volume(v), veh/h	206	196	490	182	0	162	364	0	17	415	0	16
Grp Sat Flow(s),veh/h/ln	1674	1610	1435	1711	0	1507	1825	0	1529	1848	0	1532
Q Serve(g_s), s	0.0	8.4	19.3	0.0	0.0	7.3	17.8	0.0	0.8	20.0	0.0	0.7
Cycle Q Clear(g_c), s	7.5	8.4	19.3	6.6	0.0	7.3	17.8	0.0	0.8	20.0	0.0	0.7
Prop In Lane	0.19		1.00	0.09		0.43	0.41		1.00	0.16		1.00
Lane Grp Cap(c), veh/h	648	580	905	658	0	543	447	0	375	495	0	410
V/C Ratio(X)	0.32	0.34	0.54	0.28	0.00	0.30	0.81	0.00	0.05	0.84	0.00	0.04
Avail Cap(c_a), veh/h	648	580	905	658	0	543	773	0	648	861	0	714
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.7	22.0	11.2	21.4	0.0	21.7	33.6	0.0	27.2	32.6	0.0	25.6
Incr Delay (d2), s/veh	1.3	1.6	2.3	1.0	0.0	1.4	3.6	0.0	0.0	3.9	0.0	0.0
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	4.1	3.9	13.0	3.5	0.0	3.2	9.3	0.0	0.3	10.7	0.0	0.3
LnGrp Delay(d),s/veh	23.0	23.6	13.5	22.5	0.0	23.1	37.2	0.0	27.3	36.5	0.0	25.6
LnGrp LOS	C	C	B	C		C	D		C	D		C
Approach Vol, veh/h		892			344			381			431	
Approach Delay, s/veh		17.9			22.8			36.8			36.1	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		38.0		27.1		38.0		29.3
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		34.0		40.0		34.0		44.0
Max Q Clear Time (g_c+I1), s		21.3		19.8		9.3		22.0
Green Ext Time (p_c), s		3.8		2.3		2.2		2.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.1
HCM 2010 LOS	C



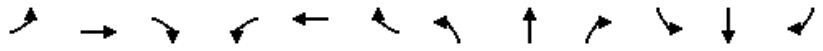
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	411	374	213	555	472	248
Future Volume (veh/h)	411	374	213	555	472	248
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	411	374	213	555	472	248
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	445	1208	684	1018	509	851
Arrive On Green	0.25	0.65	0.37	0.37	0.29	0.29
Sat Flow, veh/h	1774	1863	1863	1533	1774	1583
Grp Volume(v), veh/h	411	374	213	555	472	248
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1533	1774	1583
Q Serve(g_s), s	29.5	11.5	10.7	25.6	33.8	11.2
Cycle Q Clear(g_c), s	29.5	11.5	10.7	25.6	33.8	11.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	445	1208	684	1018	509	851
V/C Ratio(X)	0.92	0.31	0.31	0.55	0.93	0.29
Avail Cap(c_a), veh/h	692	1208	684	1018	771	1085
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	47.8	10.1	29.5	12.2	45.3	16.6
Incr Delay (d2), s/veh	13.0	0.7	1.2	2.1	11.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.1	6.1	5.7	20.5	18.2	13.2
LnGrp Delay(d),s/veh	60.7	10.8	30.7	14.3	56.8	16.7
LnGrp LOS	E	B	C	B	E	B
Approach Vol, veh/h		785	768		720	
Approach Delay, s/veh		36.9	18.9		43.0	
Approach LOS		D	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		89.0		41.7	36.8	52.2		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 85		* 57	51.0	* 30		
Max Q Clear Time (g_c+I1), s		13.5		35.8	31.5	27.6		
Green Ext Time (p_c), s		1.6		1.7	1.2	0.6		

Intersection Summary	
HCM 2010 Ctrl Delay	32.8
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



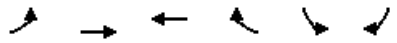
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	58	0	72	22	268	0	874	62	224	699	93
Future Volume (veh/h)	149	58	0	72	22	268	0	874	62	224	699	93
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	149	58	0	72	22	268	0	874	62	224	699	93
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	242	82	0	332	91	839	0	1002	71	527	2034	270
Arrive On Green	0.24	0.24	0.00	0.24	0.24	0.24	0.00	0.30	0.30	0.30	0.65	0.65
Sat Flow, veh/h	694	346	0	1066	386	1556	0	3439	237	1774	3141	418
Grp Volume(v), veh/h	207	0	0	94	0	268	0	462	474	224	394	398
Grp Sat Flow(s),veh/h/ln	1040	0	0	1451	0	1556	0	1770	1814	1774	1770	1789
Q Serve(g_s), s	11.8	0.0	0.0	0.0	0.0	0.0	0.0	19.8	19.8	8.1	8.1	8.1
Cycle Q Clear(g_c), s	15.9	0.0	0.0	4.1	0.0	0.0	0.0	19.8	19.8	8.1	8.1	8.1
Prop In Lane	0.72		0.00	0.77		1.00	0.00		0.13	1.00		0.23
Lane Grp Cap(c), veh/h	324	0	0	424	0	839	0	530	543	527	1146	1159
V/C Ratio(X)	0.64	0.00	0.00	0.22	0.00	0.32	0.00	0.87	0.87	0.43	0.34	0.34
Avail Cap(c_a), veh/h	449	0	0	569	0	997	0	575	590	527	1146	1159
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	0.00	1.00	1.00	0.90	0.90	0.90
Uniform Delay (d), s/veh	30.4	0.0	0.0	24.8	0.0	10.4	0.0	26.6	26.6	22.6	6.4	6.4
Incr Delay (d2), s/veh	1.6	0.0	0.0	0.2	0.0	0.2	0.0	17.7	17.3	0.2	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	4.5	0.0	0.0	1.7	0.0	3.3	0.0	12.2	12.5	4.0	4.1	4.1
LnGrp Delay(d),s/veh	32.0	0.0	0.0	25.0	0.0	10.6	0.0	44.2	43.9	22.8	7.1	7.1
LnGrp LOS	C			C		B		D	D	C	A	A
Approach Vol, veh/h		207			362			936			1016	
Approach Delay, s/veh		32.0			14.3			44.1			10.6	
Approach LOS		C			B			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		56.4		23.6	28.4	28.1		23.6
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		43.7		27.1	14.1	* 26		27.1
Max Q Clear Time (g_c+I1), s		10.1		17.9	10.1	21.8		6.1
Green Ext Time (p_c), s		5.8		0.8	0.1	2.2		1.1

Intersection Summary		
HCM 2010 Ctrl Delay		25.3
HCM 2010 LOS		C

Notes

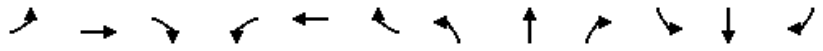
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	566	1699	629	188	524	776
Future Volume (veh/h)	566	1699	629	188	524	776
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	566	1699	629	188	524	776
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	680	2746	1116	326	624	1531
Arrive On Green	0.20	0.54	0.29	0.29	0.35	0.35
Sat Flow, veh/h	3442	5253	4035	1129	1774	2787
Grp Volume(v), veh/h	566	1699	550	267	524	776
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1605	1774	1393
Q Serve(g_s), s	11.7	17.1	10.2	10.5	20.1	12.9
Cycle Q Clear(g_c), s	11.7	17.1	10.2	10.5	20.1	12.9
Prop In Lane	1.00			0.70	1.00	1.00
Lane Grp Cap(c), veh/h	680	2746	978	463	624	1531
V/C Ratio(X)	0.83	0.62	0.56	0.58	0.84	0.51
Avail Cap(c_a), veh/h	836	2746	978	463	766	1754
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	28.5	11.8	22.4	22.5	22.1	10.4
Incr Delay (d2), s/veh	6.0	1.1	2.3	5.2	6.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	8.1	5.0	5.3	11.0	4.9
LnGrp Delay(d),s/veh	34.6	12.8	24.7	27.7	29.0	10.7
LnGrp LOS	C	B	C	C	C	B
Approach Vol, veh/h		2265	817		1300	
Approach Delay, s/veh		18.3	25.7		18.1	
Approach LOS		B	C		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	18.6	25.4				44.0		30.1
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	14.6	18.0				40.0		32.0
Max Q Clear Time (g_c+I1), s	13.7	12.5				19.1		22.1
Green Ext Time (p_c), s	0.9	2.4				12.7		3.9

Intersection Summary	
HCM 2010 Ctrl Delay	19.6
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	464	47	169	31	16	24	124	987	104	34	876	401
Future Volume (veh/h)	464	47	169	31	16	24	124	987	104	34	876	401
Number	3	8	18	7	4	14	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		0.98	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	498	0	169	31	16	24	124	987	104	34	876	401
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	570	0	252	104	39	58	635	2306	1099	44	1113	738
Arrive On Green	0.16	0.00	0.16	0.06	0.06	0.06	0.72	1.00	1.00	0.02	0.31	0.31
Sat Flow, veh/h	3548	0	1572	1774	665	997	1774	3539	1545	1774	3539	1537
Grp Volume(v), veh/h	498	0	169	31	0	40	124	987	104	34	876	401
Grp Sat Flow(s),veh/h/ln	1774	0	1572	1774	0	1662	1774	1770	1545	1774	1770	1537
Q Serve(g_s), s	21.9	0.0	16.2	2.7	0.0	3.7	3.7	0.0	0.0	3.0	36.1	29.6
Cycle Q Clear(g_c), s	21.9	0.0	16.2	2.7	0.0	3.7	3.7	0.0	0.0	3.0	36.1	29.6
Prop In Lane	1.00		1.00	1.00		0.60	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	570	0	252	104	0	97	635	2306	1099	44	1113	738
V/C Ratio(X)	0.87	0.00	0.67	0.30	0.00	0.41	0.20	0.43	0.09	0.78	0.79	0.54
Avail Cap(c_a), veh/h	843	0	373	299	0	280	635	2306	1099	89	1248	796
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.82	0.82	0.82	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.6	0.0	63.2	72.2	0.0	72.7	15.1	0.0	0.0	77.6	50.0	29.8
Incr Delay (d2), s/veh	6.2	0.0	2.3	1.2	0.0	2.1	0.0	0.5	0.1	10.5	5.6	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	11.3	0.0	7.2	1.4	0.0	1.8	1.8	0.2	0.0	1.6	18.5	17.1
LnGrp Delay(d),s/veh	71.7	0.0	65.4	73.4	0.0	74.8	15.2	0.5	0.1	88.1	55.6	32.7
LnGrp LOS	E		E	E		E	B	A	A	F	E	C
Approach Vol, veh/h		667			71			1215			1311	
Approach Delay, s/veh		70.1			74.2			2.0			49.4	
Approach LOS		E			E			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.9	108.8		13.5	61.9	54.9		29.7
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.6	* 4.6		4.0
Max Green Setting (Gmax), s	8.3	70.2		* 27	21.8	* 56		38.0
Max Q Clear Time (g_c+I1), s	5.7	2.0		5.7	5.7	38.1		23.9
Green Ext Time (p_c), s	0.0	22.1		0.2	0.1	12.2		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	36.5
HCM 2010 LOS	D

Notes

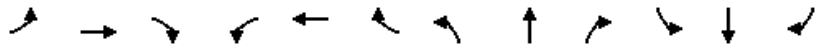
User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	34.7
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	272	68	207	325	33	73	118	214	37	162	55
Future Vol, veh/h	34	272	68	207	325	33	73	118	214	37	162	55
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	272	68	207	325	33	73	118	214	37	162	55
Number of Lanes	1	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	3
HCM Control Delay	30.2	46.5	22.8	34.1
HCM LOS	D	E	C	D

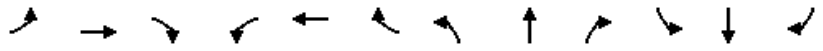
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1
Vol Left, %	38%	0%	100%	0%	0%	100%	0%	15%
Vol Thru, %	62%	0%	0%	100%	0%	0%	91%	64%
Vol Right, %	0%	100%	0%	0%	100%	0%	9%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	191	214	34	272	68	207	358	254
LT Vol	73	0	34	0	0	207	0	37
Through Vol	118	0	0	272	0	0	325	162
RT Vol	0	214	0	0	68	0	33	55
Lane Flow Rate	191	214	34	272	68	207	358	254
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.531	0.54	0.098	0.743	0.172	0.567	0.922	0.71
Departure Headway (Hd)	10.015	9.089	10.352	9.83	9.099	9.864	9.271	10.062
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	361	398	346	367	394	366	390	361
Service Time	7.769	6.842	8.104	7.581	6.85	7.614	7.021	7.814
HCM Lane V/C Ratio	0.529	0.538	0.098	0.741	0.173	0.566	0.918	0.704
HCM Control Delay	23.6	22.1	14.2	36.3	13.7	24.8	59.1	34.1
HCM Lane LOS	C	C	B	E	B	C	F	D
HCM 95th-tile Q	3	3.1	0.3	5.8	0.6	3.4	9.8	5.2



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	150	23	239	169	181	57	1561	186	262	1300	49
Future Volume (veh/h)	4	150	23	239	169	181	57	1561	186	262	1300	49
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	4	180	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	4	150	0	239	169	181	57	1561	186	262	1300	0
Adj No. of Lanes	0	2	0	0	2	0	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	28	862	0	293	217	246	84	2241	76	385	2143	959
Arrive On Green	0.28	0.28	0.00	0.28	0.28	0.28	0.04	0.46	0.46	0.20	0.62	0.00
Sat Flow, veh/h	31	3254	0	949	794	900	1774	4601	547	1774	3539	1583
Grp Volume(v), veh/h	79	75	0	285	0	304	57	1150	597	262	1300	0
Grp Sat Flow(s),veh/h/ln	1589	1610	0	1131	0	1512	1774	1695	1758	1774	1770	1583
Q Serve(g_s), s	0.3	6.8	0.0	40.9	0.0	34.9	6.1	53.1	53.2	26.5	42.0	0.0
Cycle Q Clear(g_c), s	35.2	6.8	0.0	47.7	0.0	34.9	6.1	53.1	53.2	26.5	42.0	0.0
Prop In Lane	0.05		0.00	0.84		0.60	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	448	441	0	343	0	414	84	1505	812	385	2143	959
V/C Ratio(X)	0.18	0.17	0.00	0.83	0.00	0.73	0.68	0.76	0.74	0.68	0.61	0.00
Avail Cap(c_a), veh/h	535	513	0	402	0	482	120	1559	808	408	2200	984
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.3	54.4	0.0	73.1	0.0	64.9	91.5	55.1	55.1	70.6	24.2	0.0
Incr Delay (d2), s/veh	0.2	0.2	0.0	12.1	0.0	4.9	9.3	3.7	5.9	4.2	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	51.4	180.6	146.7	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	3.2	0.0	16.3	0.0	15.6	5.3	79.7	78.9	13.5	22.3	0.0
LnGrp Delay(d),s/veh	54.4	54.6	0.0	85.1	0.0	69.7	152.2	239.5	207.7	74.9	25.5	0.0
LnGrp LOS	D	D		F		E	F	F	F	E	C	
Approach Vol, veh/h		154			589			1804			1562	
Approach Delay, s/veh		54.5			77.2			226.2			33.8	
Approach LOS		D			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	42.7	92.0		56.7	11.7	123.0		56.7
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	44.0	88.0		61.0	13.0	119.0		61.0
Max Q Clear Time (g_c+I1), s	28.5	55.2		37.2	8.1	44.0		49.7
Green Ext Time (p_c), s	0.7	17.1		0.8	0.0	15.0		3.0

Intersection Summary		
HCM 2010 Ctrl Delay	125.2	
HCM 2010 LOS	F	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	322	57	412	285	165	66	1562	470	237	1285	65
Future Volume (veh/h)	152	322	57	412	285	165	66	1562	470	237	1285	65
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		0.96	1.00		0.96	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	152	322	57	412	285	165	66	1562	470	237	1285	65
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	398	69	468	319	390	83	1943	1074	282	2067	1080
Arrive On Green	0.10	0.13	0.13	0.14	0.17	0.17	0.05	0.55	0.55	0.08	0.58	0.58
Sat Flow, veh/h	1774	2991	522	3442	1863	1522	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	152	189	190	412	285	165	66	1562	470	237	1285	65
Grp Sat Flow(s),veh/h/ln	1774	1770	1743	1721	1863	1522	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	13.5	16.6	17.0	18.8	24.0	14.6	5.9	57.1	21.7	10.9	38.0	2.2
Cycle Q Clear(g_c), s	13.5	16.6	17.0	18.8	24.0	14.6	5.9	57.1	21.7	10.9	38.0	2.2
Prop In Lane	1.00		0.30	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	174	236	232	468	319	390	83	1943	1074	282	2067	1080
V/C Ratio(X)	0.87	0.80	0.82	0.88	0.89	0.42	0.79	0.80	0.44	0.84	0.62	0.06
Avail Cap(c_a), veh/h	232	287	283	623	395	453	144	1943	1074	344	2067	1080
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	71.3	67.4	67.6	67.9	65.0	50.1	75.6	29.2	11.4	72.5	21.8	8.4
Incr Delay (d2), s/veh	23.2	12.5	14.6	11.0	19.1	0.7	15.3	3.6	1.3	14.5	1.4	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	7.8	8.9	9.1	9.7	14.0	6.2	3.3	28.8	9.7	5.8	19.0	1.0
LnGrp Delay(d),s/veh	94.5	79.9	82.2	78.9	84.1	50.9	90.9	32.8	12.6	87.0	23.2	8.6
LnGrp LOS	F	E	F	E	F	D	F	C	B	F	C	A
Approach Vol, veh/h		531			862			2098			1587	
Approach Delay, s/veh		84.9			75.3			30.1			32.1	
Approach LOS		F			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	17.1	92.0	25.8	25.3	11.5	97.6	19.7	31.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	88.0	29.0	26.0	13.0	91.0	21.0	34.0
Max Q Clear Time (g_c+I1), s	12.9	59.1	20.8	19.0	7.9	40.0	15.5	26.0
Green Ext Time (p_c), s	0.2	17.8	1.0	1.2	0.0	14.4	0.2	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	44.1
HCM 2010 LOS	D

Notes

User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	720	737	2097	0	0	1052
Future Volume (veh/h)	720	737	2097	0	0	1052
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	720	737	2097	0	0	1052
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	1029	833	2114	0	0	2114
Arrive On Green	0.30	0.30	0.60	0.00	0.00	0.60
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	720	737	2097	0	0	1052
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	14.8	20.2	46.8	0.0	0.0	13.6
Cycle Q Clear(g_c), s	14.8	20.2	46.8	0.0	0.0	13.6
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	1029	833	2114	0	0	2114
V/C Ratio(X)	0.70	0.88	0.99	0.00	0.00	0.50
Avail Cap(c_a), veh/h	1076	871	2114	0	0	2114
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.48	0.00	0.00	1.00
Uniform Delay (d), s/veh	24.9	26.7	15.9	0.0	0.0	9.2
Incr Delay (d2), s/veh	1.9	10.5	11.8	0.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	8.9	25.9	0.0	0.0	6.8
LnGrp Delay(d),s/veh	26.8	37.2	27.7	0.0	0.0	10.1
LnGrp LOS	C	D	C			B
Approach Vol, veh/h	1457		2097			1052
Approach Delay, s/veh	32.1		27.7			10.1
Approach LOS	C		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		51.9				51.9		28.1
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		46.7				46.7		25.0
Max Q Clear Time (g_c+I1), s		48.8				15.6		22.2
Green Ext Time (p_c), s		0.0				9.2		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	25.1
HCM 2010 LOS	C

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1299	451	0	1174	1562	0
Future Volume (veh/h)	1299	451	0	1174	1562	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1299	451	0	1174	1562	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1380	635	0	1757	1757	0
Arrive On Green	0.40	0.40	0.00	0.50	0.99	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1299	451	0	1174	1562	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	29.1	19.1	0.0	20.0	2.1	0.0
Cycle Q Clear(g_c), s	29.1	19.1	0.0	20.0	2.1	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1380	635	0	1757	1757	0
V/C Ratio(X)	0.94	0.71	0.00	0.67	0.89	0.00
Avail Cap(c_a), veh/h	1415	651	0	1757	1757	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.79	0.00
Uniform Delay (d), s/veh	23.1	20.1	0.0	15.2	0.1	0.0
Incr Delay (d2), s/veh	12.2	3.0	0.0	2.0	5.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.0	8.8	0.0	10.1	1.5	0.0
LnGrp Delay(d),s/veh	35.2	23.0	0.0	17.2	5.9	0.0
LnGrp LOS	D	C		B	A	
Approach Vol, veh/h	1750			1174	1562	
Approach Delay, s/veh	32.1			17.2	5.9	
Approach LOS	C			B	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		43.8		36.2		43.8		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		38.9		32.9		38.9		
Max Q Clear Time (g_c+I1), s		22.0		31.1		4.1		
Green Ext Time (p_c), s		5.7		1.0		10.9		

Intersection Summary	
HCM 2010 Ctrl Delay	19.1
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	13.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	290	40	74	366	30	67	103	63	21	99	64
Future Vol, veh/h	31	290	40	74	366	30	67	103	63	21	99	64
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	290	40	74	366	30	67	103	63	21	99	64
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	12.8	14.6	14.3	13
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	29%	18%	0%	29%	0%	11%
Vol Thru, %	44%	82%	78%	71%	86%	54%
Vol Right, %	27%	0%	22%	0%	14%	35%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	233	176	185	257	213	184
LT Vol	67	31	0	74	0	21
Through Vol	103	145	145	183	183	99
RT Vol	63	0	40	0	30	64
Lane Flow Rate	233	176	185	257	213	184
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.422	0.335	0.34	0.484	0.387	0.337
Departure Headway (Hd)	6.524	6.858	6.613	6.781	6.533	6.588
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	552	524	544	535	554	545
Service Time	4.569	4.602	4.357	4.481	4.233	4.637
HCM Lane V/C Ratio	0.422	0.336	0.34	0.48	0.384	0.338
HCM Control Delay	14.3	13	12.7	15.7	13.3	13
HCM Lane LOS	B	B	B	C	B	B
HCM 95th-tile Q	2.1	1.5	1.5	2.6	1.8	1.5

Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	58	785	7	8	368	67	9	6	35	93	2	84
Future Vol, veh/h	58	785	7	8	368	67	9	6	35	93	2	84
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	58	785	7	8	368	67	9	6	35	93	2	84

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	466	0	0	808	0	0	1122	1403	437	986	1373	249
Stage 1	-	-	-	-	-	-	921	921	-	449	449	-
Stage 2	-	-	-	-	-	-	201	482	-	537	924	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1092	-	-	813	-	-	161	139	567	202	145	751
Stage 1	-	-	-	-	-	-	291	347	-	559	571	-
Stage 2	-	-	-	-	-	-	782	552	-	496	346	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1064	-	-	802	-	-	127	119	548	159	124	732
Mov Cap-2 Maneuver	-	-	-	-	-	-	127	119	-	159	124	-
Stage 1	-	-	-	-	-	-	259	309	-	492	549	-
Stage 2	-	-	-	-	-	-	681	530	-	403	308	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.3	21.3	48.9
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	270	1064	-	-	802	-	-	250
HCM Lane V/C Ratio	0.185	0.055	-	-	0.01	-	-	0.716
HCM Control Delay (s)	21.3	8.6	0.4	-	9.5	0.1	-	48.9
HCM Lane LOS	C	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	0.7	0.2	-	-	0	-	-	4.9

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	3	0	0	3	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	4	0	-	0	4	4
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1618	-	-	-	1018	1080
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1614	-	-	-	1014	1077
Mov Cap-2 Maneuver	-	-	-	-	1014	-
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1614	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	89	25	63	138	1	11	1	69	4	5	0
Future Vol, veh/h	0	89	25	63	138	1	11	1	69	4	5	0
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	89	25	63	138	1	11	1	69	4	5	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	143	0	0	115	0	0	371	372	104	407	384	144
Stage 1	-	-	-	-	-	-	103	103	-	269	269	-
Stage 2	-	-	-	-	-	-	268	269	-	138	115	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1440	-	-	1474	-	-	586	558	951	555	550	903
Stage 1	-	-	-	-	-	-	903	810	-	737	687	-
Stage 2	-	-	-	-	-	-	738	687	-	865	800	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1435	-	-	1473	-	-	560	530	949	494	523	899
Mov Cap-2 Maneuver	-	-	-	-	-	-	560	530	-	494	523	-
Stage 1	-	-	-	-	-	-	902	809	-	735	653	-
Stage 2	-	-	-	-	-	-	698	653	-	800	799	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.4	9.6	12.2
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	860	1435	-	-	1473	-	-	510
HCM Lane V/C Ratio	0.094	-	-	-	0.043	-	-	0.018
HCM Control Delay (s)	9.6	0	-	-	7.6	0	-	12.2
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	71	17	77	101	2	4	10	15	5	47	25
Future Vol, veh/h	6	71	17	77	101	2	4	10	15	5	47	25
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	71	17	77	101	2	4	10	15	5	47	25

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	90	0	0	387	353	83	363	360	105
Stage 1	-	-	-	-	-	-	94	94	-	258	258	-
Stage 2	-	-	-	-	-	-	293	259	-	105	102	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1486	-	-	1505	-	-	572	572	976	593	567	949
Stage 1	-	-	-	-	-	-	913	817	-	747	694	-
Stage 2	-	-	-	-	-	-	715	694	-	901	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1484	-	-	1502	-	-	495	537	974	549	532	947
Mov Cap-2 Maneuver	-	-	-	-	-	-	495	537	-	549	532	-
Stage 1	-	-	-	-	-	-	908	812	-	743	655	-
Stage 2	-	-	-	-	-	-	611	655	-	872	806	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	3.2	10.5	11.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	689	1484	-	-	1502	-	-	622
HCM Lane V/C Ratio	0.042	0.004	-	-	0.051	-	-	0.124
HCM Control Delay (s)	10.5	7.4	0	-	7.5	0	-	11.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.2	-	-	0.4

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	78	9	56	168	1	9	3	16	3	6	7
Future Vol, veh/h	9	78	9	56	168	1	9	3	16	3	6	7
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	78	9	56	168	1	9	3	16	3	6	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	170	0	0	87	0	0	389	383	85	394	387	171
Stage 1	-	-	-	-	-	-	101	101	-	282	282	-
Stage 2	-	-	-	-	-	-	288	282	-	112	105	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1407	-	-	1509	-	-	570	550	974	566	547	873
Stage 1	-	-	-	-	-	-	905	811	-	725	678	-
Stage 2	-	-	-	-	-	-	720	678	-	893	808	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1406	-	-	1509	-	-	540	523	972	533	520	872
Mov Cap-2 Maneuver	-	-	-	-	-	-	540	523	-	533	520	-
Stage 1	-	-	-	-	-	-	899	805	-	719	650	-
Stage 2	-	-	-	-	-	-	678	650	-	867	802	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	1.9	10.2	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	720	1406	-	-	1509	-	-	635
HCM Lane V/C Ratio	0.039	0.006	-	-	0.037	-	-	0.025
HCM Control Delay (s)	10.2	7.6	0	-	7.5	0	-	10.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	105	2	33	73	2	98
Future Vol, veh/h	105	2	33	73	2	98
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	105	2	33	73	2	98

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	110	0	249	109
Stage 1	-	-	-	-	109	-
Stage 2	-	-	-	-	140	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1480	-	766	945
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	907	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1476	-	746	943
Mov Cap-2 Maneuver	-	-	-	-	746	-
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	885	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	938	-	-	1476	-
HCM Lane V/C Ratio	0.107	-	-	0.022	-
HCM Control Delay (s)	9.3	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

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	84	79	1	2	131	3	3	5	5	5	5	69
Future Vol, veh/h	84	79	1	2	131	3	3	5	5	5	5	69
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	84	79	1	2	131	3	3	5	5	5	5	69

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	136	0	0	81	0	0	424	389	81	392	388	136
Stage 1	-	-	-	-	-	-	249	249	-	139	139	-
Stage 2	-	-	-	-	-	-	175	140	-	253	249	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1448	-	-	1517	-	-	540	546	979	567	547	913
Stage 1	-	-	-	-	-	-	755	701	-	864	782	-
Stage 2	-	-	-	-	-	-	827	781	-	751	701	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1446	-	-	1516	-	-	471	511	978	532	511	911
Mov Cap-2 Maneuver	-	-	-	-	-	-	471	511	-	532	511	-
Stage 1	-	-	-	-	-	-	708	658	-	810	780	-
Stage 2	-	-	-	-	-	-	758	779	-	696	658	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.9	0.1	11	9.8
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	611	1446	-	-	1516	-	-	832
HCM Lane V/C Ratio	0.021	0.058	-	-	0.001	-	-	0.095
HCM Control Delay (s)	11	7.6	0	-	7.4	0	-	9.8
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.3

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	28	6	12	35	47	4	107	26	51	169	29
Future Vol, veh/h	28	28	6	12	35	47	4	107	26	51	169	29
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	28	6	12	35	47	4	107	26	51	169	29
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	8.5	8.3	8.4	9.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	45%	13%	20%
Vol Thru, %	78%	45%	37%	68%
Vol Right, %	19%	10%	50%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	137	62	94	249
LT Vol	4	28	12	51
Through Vol	107	28	35	169
RT Vol	26	6	47	29
Lane Flow Rate	137	62	94	249
Geometry Grp	1	1	1	1
Degree of Util (X)	0.17	0.085	0.12	0.307
Departure Headway (Hd)	4.476	4.956	4.611	4.432
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	801	721	776	812
Service Time	2.506	2.997	2.649	2.458
HCM Lane V/C Ratio	0.171	0.086	0.121	0.307
HCM Control Delay	8.4	8.5	8.3	9.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.3	0.4	1.3

Intersection	
Intersection Delay, s/veh	19.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	88	25	42	75	45	161	26	230	44	49	354	58
Future Vol, veh/h	88	25	42	75	45	161	26	230	44	49	354	58
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	88	25	42	75	45	161	26	230	44	49	354	58
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	13	15.5	16	25.8
HCM LOS	B	C	C	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	57%	27%	11%
Vol Thru, %	77%	16%	16%	77%
Vol Right, %	15%	27%	57%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	300	155	281	461
LT Vol	26	88	75	49
Through Vol	230	25	45	354
RT Vol	44	42	161	58
Lane Flow Rate	300	155	281	461
Geometry Grp	1	1	1	1
Degree of Util (X)	0.522	0.298	0.495	0.764
Departure Headway (Hd)	6.261	6.932	6.348	5.967
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	573	516	565	604
Service Time	4.324	5.009	4.411	4.021
HCM Lane V/C Ratio	0.524	0.3	0.497	0.763
HCM Control Delay	16	13	15.5	25.8
HCM Lane LOS	C	B	C	D
HCM 95th-tile Q	3	1.2	2.7	7

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	15	68	4	17	1	82	1	2	1	3	1
Future Vol, veh/h	1	15	68	4	17	1	82	1	2	1	3	1
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	15	68	4	17	1	82	1	2	1	3	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	18	0	0	84	0	0	80	78	50	79	112	18
Stage 1	-	-	-	-	-	-	52	52	-	26	26	-
Stage 2	-	-	-	-	-	-	28	26	-	53	86	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1599	-	-	1513	-	-	908	812	1018	910	778	1061
Stage 1	-	-	-	-	-	-	961	852	-	992	874	-
Stage 2	-	-	-	-	-	-	989	874	-	960	824	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1599	-	-	1512	-	-	901	808	1017	905	774	1061
Mov Cap-2 Maneuver	-	-	-	-	-	-	901	808	-	905	774	-
Stage 1	-	-	-	-	-	-	959	850	-	991	871	-
Stage 2	-	-	-	-	-	-	982	871	-	956	822	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.3	9.4	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	902	1599	-	-	1512	-	-	844
HCM Lane V/C Ratio	0.094	0.001	-	-	0.003	-	-	0.006
HCM Control Delay (s)	9.4	7.3	0	-	7.4	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	41	21	22	1016	766	52
Future Vol, veh/h	41	21	22	1016	766	52
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	21	22	1016	766	52

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1829	769	821	0	-	0
Stage 1	769	-	-	-	-	-
Stage 2	1060	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	84	401	808	-	-	-
Stage 1	457	-	-	-	-	-
Stage 2	333	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	78	400	806	-	-	-
Mov Cap-2 Maneuver	259	-	-	-	-	-
Stage 1	427	-	-	-	-	-
Stage 2	332	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.5	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	806	-	294	-	-
HCM Lane V/C Ratio	0.027	-	0.211	-	-
HCM Control Delay (s)	9.6	0	20.5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.8	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	285	22	375	512	0	619
Future Volume (veh/h)	285	22	375	512	0	619
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	285	22	375	0	0	619
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	358	28	1434	0	0	1434
Arrive On Green	0.22	0.22	0.41	0.00	0.00	0.41
Sat Flow, veh/h	1628	126	3725	0	0	3725
Grp Volume(v), veh/h	308	0	375	0	0	619
Grp Sat Flow(s),veh/h/ln	1759	0	1770	0	0	1770
Q Serve(g_s), s	3.3	0.0	1.4	0.0	0.0	2.5
Cycle Q Clear(g_c), s	3.3	0.0	1.4	0.0	0.0	2.5
Prop In Lane	0.93	0.07		0.00	0.00	
Lane Grp Cap(c), veh/h	387	0	1434	0	0	1434
V/C Ratio(X)	0.80	0.00	0.26	0.00	0.00	0.43
Avail Cap(c_a), veh/h	1143	0	3449	0	0	3449
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	7.4	0.0	4.0	0.0	0.0	4.3
Incr Delay (d2), s/veh	1.4	0.0	0.1	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	0.7	0.0	0.0	1.3
LnGrp Delay(d),s/veh	8.8	0.0	4.1	0.0	0.0	4.5
LnGrp LOS	A		A			A
Approach Vol, veh/h	308		375			619
Approach Delay, s/veh	8.8		4.1			4.5
Approach LOS	A		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		12.6		7.4		12.6		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		19.5		13.0		19.5		
Max Q Clear Time (g_c+I1), s		3.4		5.3		4.5		
Green Ext Time (p_c), s		2.5		0.1		3.6		

Intersection Summary	
HCM 2010 Ctrl Delay	5.4
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	345	300	14	419	84	175	170	13	68	320	76
Future Volume (veh/h)	47	345	300	14	419	84	175	170	13	68	320	76
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.91	0.99		0.91	1.00		0.96	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	47	345	300	14	419	84	175	170	13	68	320	76
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	1017	928	53	1068	208	217	211	359	82	388	390
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.38	0.24	0.24	0.24	0.25	0.25	0.25
Sat Flow, veh/h	268	2643	1442	36	2776	541	921	895	1527	324	1523	1530
Grp Volume(v), veh/h	179	213	300	278	0	239	345	0	13	388	0	76
Grp Sat Flow(s),veh/h/ln	1300	1610	1442	1812	0	1540	1817	0	1527	1847	0	1530
Q Serve(g_s), s	1.7	9.0	9.6	0.0	0.0	10.9	17.2	0.0	0.6	19.1	0.0	3.7
Cycle Q Clear(g_c), s	12.5	9.0	9.6	10.4	0.0	10.9	17.2	0.0	0.6	19.1	0.0	3.7
Prop In Lane	0.26		1.00	0.05		0.35	0.51		1.00	0.18		1.00
Lane Grp Cap(c), veh/h	548	620	928	737	0	593	428	0	359	471	0	390
V/C Ratio(X)	0.33	0.34	0.32	0.38	0.00	0.40	0.81	0.00	0.04	0.82	0.00	0.19
Avail Cap(c_a), veh/h	548	620	928	737	0	593	737	0	620	807	0	669
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.7	21.0	8.8	21.4	0.0	21.5	34.7	0.0	28.3	33.8	0.0	28.1
Incr Delay (d2), s/veh	1.6	1.5	0.9	1.5	0.0	2.0	3.6	0.0	0.0	3.7	0.0	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	3.8	4.3	6.4	5.6	0.0	4.9	9.1	0.0	0.3	10.2	0.0	1.6
LnGrp Delay(d),s/veh	22.3	22.5	9.7	22.8	0.0	23.6	38.3	0.0	28.4	37.5	0.0	28.3
LnGrp LOS	C	C	A	C		C	D		C	D		C
Approach Vol, veh/h		692			517			358			464	
Approach Delay, s/veh		16.9			23.2			38.0			36.0	
Approach LOS		B			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		41.0		26.6		41.0		28.5
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		37.0		39.0		37.0		42.0
Max Q Clear Time (g_c+I1), s		14.5		19.2		12.9		21.1
Green Ext Time (p_c), s		3.7		2.2		3.4		2.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.6
HCM 2010 LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	405	308	391	643	424	360
Future Volume (veh/h)	405	308	391	643	424	360
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	405	308	391	643	424	360
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	431	1257	747	1028	462	798
Arrive On Green	0.24	0.67	0.40	0.40	0.26	0.26
Sat Flow, veh/h	1774	1863	1863	1534	1774	1583
Grp Volume(v), veh/h	405	308	391	643	424	360
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1534	1774	1583
Q Serve(g_s), s	29.1	8.4	20.7	31.8	30.2	19.0
Cycle Q Clear(g_c), s	29.1	8.4	20.7	31.8	30.2	19.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	431	1257	747	1028	462	798
V/C Ratio(X)	0.94	0.25	0.52	0.63	0.92	0.45
Avail Cap(c_a), veh/h	573	1257	747	1028	597	918
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	48.3	8.2	29.6	12.8	46.7	20.7
Incr Delay (d2), s/veh	17.9	0.5	2.6	2.9	15.6	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.4	4.4	11.2	23.9	16.8	19.5
LnGrp Delay(d),s/veh	66.2	8.7	32.2	15.7	62.3	21.0
LnGrp LOS	E	A	C	B	E	C
Approach Vol, veh/h		713	1034		784	
Approach Delay, s/veh		41.4	21.9		43.4	
Approach LOS		D	C		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		92.0		38.1	35.6	56.4		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 88		* 44	42.0	* 42		
Max Q Clear Time (g_c+I1), s		10.4		32.2	31.1	33.8		
Green Ext Time (p_c), s		1.3		1.7	0.5	2.2		

Intersection Summary	
HCM 2010 Ctrl Delay	34.0
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	16	3	45	20	218	2	944	61	137	774	45
Future Volume (veh/h)	60	16	3	45	20	218	2	944	61	137	774	45
Number	7	4	14	3	8	18	1	6	16	5	2	12
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		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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	60	16	3	45	20	218	2	944	61	137	774	45
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	119	28	4	159	63	898	26	1106	71	806	2783	162
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.34	0.34	0.34	0.45	0.82	0.82
Sat Flow, veh/h	637	240	35	999	546	1547	1	3298	213	1774	3400	198
Grp Volume(v), veh/h	79	0	0	65	0	218	534	0	473	137	403	416
Grp Sat Flow(s),veh/h/ln	911	0	0	1546	0	1547	1861	0	1651	1774	1770	1828
Q Serve(g_s), s	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.4	6.4	7.5	7.5
Cycle Q Clear(g_c), s	13.0	0.0	0.0	5.3	0.0	0.0	37.3	0.0	37.4	6.4	7.5	7.5
Prop In Lane	0.76		0.04	0.69		1.00	0.00		0.13	1.00		0.11
Lane Grp Cap(c), veh/h	151	0	0	222	0	898	650	0	554	806	1449	1496
V/C Ratio(X)	0.52	0.00	0.00	0.29	0.00	0.24	0.82	0.00	0.86	0.17	0.28	0.28
Avail Cap(c_a), veh/h	277	0	0	375	0	1055	993	0	860	806	1449	1496
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	0.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	62.2	0.0	0.0	57.0	0.0	15.0	43.3	0.0	43.4	22.6	3.0	3.0
Incr Delay (d2), s/veh	2.1	0.0	0.0	0.5	0.0	0.1	11.2	0.0	15.5	0.0	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.0	2.4	0.0	4.1	21.3	0.0	19.5	3.1	3.7	3.8
LnGrp Delay(d),s/veh	64.2	0.0	0.0	57.5	0.0	15.1	54.5	0.0	58.9	22.6	3.3	3.3
LnGrp LOS	E			E		B	D		E	C	A	A
Approach Vol, veh/h		79			283			1007			956	
Approach Delay, s/veh		64.2			24.9			56.6			6.1	
Approach LOS		E			C			E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		119.2		20.8	68.2	51.0		20.8
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		100.4		30.4	23.9	* 73		30.4
Max Q Clear Time (g_c+I1), s		9.5		15.0	8.4	39.4		7.3
Green Ext Time (p_c), s		6.3		0.3	0.1	7.5		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	32.2
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	564	801	1377	319	272	559
Future Volume (veh/h)	564	801	1377	319	272	559
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	564	801	1377	319	272	559
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	682	3465	1738	402	355	1110
Arrive On Green	0.20	0.68	0.42	0.42	0.20	0.20
Sat Flow, veh/h	3442	5253	4266	947	1774	2787
Grp Volume(v), veh/h	564	801	1139	557	272	559
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1655	1774	1393
Q Serve(g_s), s	10.6	4.0	19.7	19.7	9.8	10.2
Cycle Q Clear(g_c), s	10.6	4.0	19.7	19.7	9.8	10.2
Prop In Lane	1.00			0.57	1.00	1.00
Lane Grp Cap(c), veh/h	682	3465	1437	702	355	1110
V/C Ratio(X)	0.83	0.23	0.79	0.79	0.77	0.50
Avail Cap(c_a), veh/h	816	3465	1437	702	420	1213
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	26.0	4.1	16.9	16.9	25.5	15.3
Incr Delay (d2), s/veh	6.0	0.2	4.5	9.0	7.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	1.9	10.1	10.7	5.4	3.9
LnGrp Delay(d),s/veh	32.0	4.2	21.4	25.9	32.5	15.6
LnGrp LOS	C	A	C	C	C	B
Approach Vol, veh/h		1365	1696		831	
Approach Delay, s/veh		15.7	22.9		21.1	
Approach LOS		B	C		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	17.4	32.6				50.0		17.5
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	26.0				46.0		16.0
Max Q Clear Time (g_c+I1), s	12.6	21.7				6.0		12.2
Green Ext Time (p_c), s	0.8	3.4				6.4		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	20.0
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	485	25	94	69	31	66	186	961	67	26	751	335
Future Volume (veh/h)	485	25	94	69	31	66	186	961	67	26	751	335
Number	3	8	18	7	4	14	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		0.97	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	503	0	94	69	31	66	186	961	67	26	751	335
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	622	0	276	163	48	103	124	1927	985	36	1752	1041
Arrive On Green	0.18	0.00	0.18	0.09	0.09	0.09	0.07	0.54	0.54	0.02	0.49	0.49
Sat Flow, veh/h	3548	0	1573	1774	526	1121	1774	3539	1543	1774	3539	1543
Grp Volume(v), veh/h	503	0	94	69	0	97	186	961	67	26	751	335
Grp Sat Flow(s),veh/h/ln	1774	0	1573	1774	0	1647	1774	1770	1543	1774	1770	1543
Q Serve(g_s), s	13.6	0.0	5.2	3.7	0.0	5.7	7.0	17.0	1.7	1.5	13.6	9.1
Cycle Q Clear(g_c), s	13.6	0.0	5.2	3.7	0.0	5.7	7.0	17.0	1.7	1.5	13.6	9.1
Prop In Lane	1.00		1.00	1.00		0.68	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	622	0	276	163	0	151	124	1927	985	36	1752	1041
V/C Ratio(X)	0.81	0.00	0.34	0.42	0.00	0.64	1.50	0.50	0.07	0.71	0.43	0.32
Avail Cap(c_a), veh/h	958	0	425	479	0	445	124	1927	985	71	1752	1041
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	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	0.0	36.2	42.9	0.0	43.8	46.5	14.2	6.9	48.7	16.2	6.9
Incr Delay (d2), s/veh	2.4	0.0	0.5	1.3	0.0	3.4	257.4	0.8	0.1	9.2	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	0.0	2.3	1.9	0.0	2.7	12.3	8.5	0.9	0.8	6.8	6.2
LnGrp Delay(d),s/veh	42.0	0.0	36.7	44.2	0.0	47.2	303.9	15.1	7.0	57.8	17.0	7.8
LnGrp LOS	D		D	D		D	F	B	A	E	B	A
Approach Vol, veh/h		597			166			1214			1112	
Approach Delay, s/veh		41.2			46.0			58.9			15.1	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.1	59.0		13.4	11.0	54.1		21.5
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.0	4.6		4.0
Max Green Setting (Gmax), s	4.0	25.2		* 27	7.0	22.2		27.0
Max Q Clear Time (g_c+I1), s	3.5	19.0		7.7	9.0	15.6		15.6
Green Ext Time (p_c), s	0.0	4.6		0.5	0.0	4.7		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	39.0
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Intersection Delay, s/veh	36.3
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	379	87	182	245	21	88	147	220	39	123	28
Future Vol, veh/h	45	379	87	182	245	21	88	147	220	39	123	28
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	45	379	87	182	245	21	88	147	220	39	123	28
Number of Lanes	1	1	1	1	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	3
HCM Control Delay	57.2	28.3	25.2	25.2
HCM LOS	F	D	D	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1
Vol Left, %	37%	0%	100%	0%	0%	100%	0%	21%
Vol Thru, %	63%	0%	0%	100%	0%	0%	92%	65%
Vol Right, %	0%	100%	0%	0%	100%	0%	8%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	235	220	45	379	87	182	266	190
LT Vol	88	0	45	0	0	182	0	39
Through Vol	147	0	0	379	0	0	245	123
RT Vol	0	220	0	0	87	0	21	28
Lane Flow Rate	235	220	45	379	87	182	266	190
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.64	0.543	0.123	0.982	0.208	0.511	0.703	0.549
Departure Headway (Hd)	9.799	8.878	9.851	9.331	8.603	10.101	9.518	10.409
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	369	407	365	390	418	357	380	346
Service Time	7.522	6.601	7.572	7.052	6.324	7.857	7.273	8.172
HCM Lane V/C Ratio	0.637	0.541	0.123	0.972	0.208	0.51	0.7	0.549
HCM Control Delay	28.4	21.7	14	72.4	13.6	23	32	25.2
HCM Lane LOS	D	C	B	F	B	C	D	D
HCM 95th-tile Q	4.2	3.1	0.4	11.5	0.8	2.8	5.2	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	158	32	238	121	257	46	1198	125	147	1384	20
Future Volume (veh/h)	21	158	32	238	121	257	46	1198	125	147	1384	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	85	0	0	140	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1863	1900	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	21	158	0	238	121	257	46	1198	125	147	1384	0
Adj No. of Lanes	0	2	0	0	2	0	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	36	601	0	129	697	182	59	2373	158	214	2004	896
Arrive On Green	0.30	0.30	0.00	0.30	0.30	0.30	0.03	0.51	0.51	0.13	0.60	0.00
Sat Flow, veh/h	157	2262	0	871	498	1193	1774	4672	487	1774	3539	1583
Grp Volume(v), veh/h	74	105	0	303	0	313	46	869	454	147	1384	0
Grp Sat Flow(s),veh/h/ln	724	1610	0	1107	0	1454	1774	1695	1770	1774	1770	1583
Q Serve(g_s), s	1.9	8.9	0.0	40.9	0.0	35.2	4.7	31.4	31.4	14.5	47.5	0.0
Cycle Q Clear(g_c), s	37.1	8.9	0.0	49.8	0.0	35.2	4.7	31.4	31.4	14.5	47.5	0.0
Prop In Lane	0.28		0.00	0.79		0.82	1.00		0.28	1.00		1.00
Lane Grp Cap(c), veh/h	36	546	0	488	0	532	59	1643	877	214	2004	896
V/C Ratio(X)	2.06	0.19	0.00	0.62	0.00	0.59	0.78	0.53	0.52	0.69	0.69	0.00
Avail Cap(c_a), veh/h	368	621	0	480	0	561	116	1714	894	280	2116	947
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	99.8	46.5	0.0	71.1	0.0	61.4	93.4	42.4	40.9	82.0	30.3	0.0
Incr Delay (d2), s/veh	495.9	0.2	0.0	2.5	0.0	1.5	19.8	1.2	2.2	4.6	2.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	144.3	0.0	111.4	0.0	49.3	42.2	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	5.5	0.0	45.5	0.0	42.1	2.8	41.3	40.9	7.9	27.0	0.0
LnGrp Delay(d),s/veh	595.7	46.7	0.0	217.8	0.0	174.3	113.2	92.9	85.3	86.6	32.2	0.0
LnGrp LOS	F	D		F		F	F	F	F	F	C	
Approach Vol, veh/h		179			616			1369			1531	
Approach Delay, s/veh		274.3			195.7			91.1			37.5	
Approach LOS		F			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	27.1	97.0		59.9	10.1	114.0		59.9
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	29.0	93.0		71.0	12.0	110.0		71.0
Max Q Clear Time (g_c+I1), s	16.5	33.4		39.1	6.7	49.5		51.8
Green Ext Time (p_c), s	0.3	13.3		1.1	0.0	16.4		4.1

Intersection Summary	
HCM 2010 Ctrl Delay	95.2
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	335	26	510	297	293	70	1030	479	258	1333	69
Future Volume (veh/h)	129	335	26	510	297	293	70	1030	479	258	1333	69
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		0.96	1.00		0.97	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	129	335	26	510	297	293	70	1030	479	258	1333	69
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	411	32	589	385	471	89	1703	1023	336	1870	977
Arrive On Green	0.09	0.12	0.12	0.17	0.21	0.21	0.05	0.48	0.48	0.10	0.53	0.53
Sat Flow, veh/h	1774	3317	256	3442	1863	1530	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	129	178	183	510	297	293	70	1030	479	258	1333	69
Grp Sat Flow(s),veh/h/ln	1774	1770	1803	1721	1863	1530	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	9.1	12.4	12.6	18.3	19.1	6.1	4.9	27.0	8.7	9.3	36.1	2.2
Cycle Q Clear(g_c), s	9.1	12.4	12.6	18.3	19.1	6.1	4.9	27.0	8.7	9.3	36.1	2.2
Prop In Lane	1.00		0.14	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	157	219	224	589	385	471	89	1703	1023	336	1870	977
V/C Ratio(X)	0.82	0.81	0.82	0.87	0.77	0.62	0.78	0.60	0.47	0.77	0.71	0.07
Avail Cap(c_a), veh/h	238	293	299	814	500	565	154	1703	1023	461	1870	977
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	56.8	54.1	54.2	51.1	47.5	23.1	59.5	24.1	3.7	55.8	22.6	9.7
Incr Delay (d2), s/veh	12.9	11.8	12.6	7.3	5.5	1.5	13.7	1.6	1.5	5.2	2.3	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	5.0	6.8	7.0	9.3	10.4	8.3	2.8	13.5	4.1	4.6	18.2	1.0
LnGrp Delay(d),s/veh	69.8	65.8	66.7	58.5	53.0	24.7	73.2	25.7	5.3	61.0	25.0	9.9
LnGrp LOS	E	E	E	E	D	C	E	C	A	E	C	A
Approach Vol, veh/h		490			1100			1579			1660	
Approach Delay, s/veh		67.2			48.0			21.6			29.9	
Approach LOS		E			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	16.4	65.0	25.7	19.7	10.4	71.0	15.2	30.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	17.0	61.0	30.0	21.0	11.0	67.0	17.0	34.0
Max Q Clear Time (g_c+I1), s	11.3	29.0	20.3	14.6	6.9	38.1	11.1	21.1
Green Ext Time (p_c), s	0.4	11.8	1.4	1.1	0.0	12.7	0.1	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	35.1
HCM 2010 LOS	D

Notes

User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	510	294	2123	0	0	987
Future Volume (veh/h)	510	294	2123	0	0	987
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	510	294	2123	0	0	987
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	678	549	2475	0	0	2475
Arrive On Green	0.20	0.20	0.70	0.00	0.00	0.70
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	510	294	2123	0	0	987
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	11.2	7.6	36.1	0.0	0.0	9.3
Cycle Q Clear(g_c), s	11.2	7.6	36.1	0.0	0.0	9.3
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	678	549	2475	0	0	2475
V/C Ratio(X)	0.75	0.54	0.86	0.00	0.00	0.40
Avail Cap(c_a), veh/h	1076	871	2475	0	0	2475
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.51	0.00	0.00	1.00
Uniform Delay (d), s/veh	30.3	28.8	9.0	0.0	0.0	5.0
Incr Delay (d2), s/veh	1.7	0.8	2.2	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	3.0	17.8	0.0	0.0	4.7
LnGrp Delay(d),s/veh	32.0	29.6	11.2	0.0	0.0	5.5
LnGrp LOS	C	C	B			A
Approach Vol, veh/h	804		2123			987
Approach Delay, s/veh	31.1		11.2			5.5
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		60.0				60.0		20.0
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		46.7				46.7		25.0
Max Q Clear Time (g_c+I1), s		38.1				11.3		13.2
Green Ext Time (p_c), s		7.7				8.7		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	13.9
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1371	403	0	1077	973	0
Future Volume (veh/h)	1371	403	0	1077	973	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1371	403	0	1077	973	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1502	691	0	1632	1632	0
Arrive On Green	0.44	0.44	0.00	0.46	0.92	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1371	403	0	1077	973	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	29.9	15.4	0.0	18.9	3.8	0.0
Cycle Q Clear(g_c), s	29.9	15.4	0.0	18.9	3.8	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1502	691	0	1632	1632	0
V/C Ratio(X)	0.91	0.58	0.00	0.66	0.60	0.00
Avail Cap(c_a), veh/h	1717	790	0	1632	1632	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.86	0.00
Uniform Delay (d), s/veh	21.1	17.0	0.0	16.7	1.8	0.0
Incr Delay (d2), s/veh	6.7	0.4	0.0	2.1	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.5	6.8	0.0	9.6	1.6	0.0
LnGrp Delay(d),s/veh	27.9	17.4	0.0	18.8	3.2	0.0
LnGrp LOS	C	B		B	A	
Approach Vol, veh/h	1774			1077	973	
Approach Delay, s/veh	25.5			18.8	3.2	
Approach LOS	C			B	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		41.0		39.0		41.0		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		31.9		39.9		31.9		
Max Q Clear Time (g_c+I1), s		20.9		31.9		5.8		
Green Ext Time (p_c), s		4.2		3.1		5.2		

Intersection Summary	
HCM 2010 Ctrl Delay	17.9
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	14.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	447	75	48	275	23	46	68	62	28	97	76
Future Vol, veh/h	59	447	75	48	275	23	46	68	62	28	97	76
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	59	447	75	48	275	23	46	68	62	28	97	76
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	15.9	12.8	12.9	13.3
HCM LOS	C	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	26%	21%	0%	26%	0%	14%
Vol Thru, %	39%	79%	75%	74%	86%	48%
Vol Right, %	35%	0%	25%	0%	14%	38%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	176	283	299	186	161	201
LT Vol	46	59	0	48	0	28
Through Vol	68	224	224	138	138	97
RT Vol	62	0	75	0	23	76
Lane Flow Rate	176	282	298	186	160	201
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.326	0.516	0.522	0.355	0.297	0.366
Departure Headway (Hd)	6.66	6.578	6.292	6.897	6.662	6.547
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	540	551	576	521	539	549
Service Time	4.702	4.278	3.992	4.64	4.405	4.587
HCM Lane V/C Ratio	0.326	0.512	0.517	0.357	0.297	0.366
HCM Control Delay	12.9	16.1	15.7	13.4	12.2	13.3
HCM Lane LOS	B	C	C	B	B	B
HCM 95th-tile Q	1.4	2.9	3	1.6	1.2	1.7

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	81	639	18	20	606	48	5	2	17	65	0	77
Future Vol, veh/h	81	639	18	20	606	48	5	2	17	65	0	77
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	81	639	18	20	606	48	5	2	17	65	0	77

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	685	0	0	673	0	0	1169	1551	370	1209	1536	358
Stage 1	-	-	-	-	-	-	826	826	-	701	701	-
Stage 2	-	-	-	-	-	-	343	725	-	508	835	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	904	-	-	914	-	-	148	113	627	139	115	638
Stage 1	-	-	-	-	-	-	332	385	-	395	439	-
Stage 2	-	-	-	-	-	-	646	428	-	516	381	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	881	-	-	902	-	-	111	90	606	110	91	622
Mov Cap-2 Maneuver	-	-	-	-	-	-	111	90	-	110	91	-
Stage 1	-	-	-	-	-	-	280	325	-	329	413	-
Stage 2	-	-	-	-	-	-	546	402	-	417	322	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.4	20.8	58.5
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	252	881	-	-	902	-	-	199
HCM Lane V/C Ratio	0.095	0.092	-	-	0.022	-	-	0.714
HCM Control Delay (s)	20.8	9.5	0.5	-	9.1	0.1	-	58.5
HCM Lane LOS	C	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.3	0.3	-	-	0.1	-	-	4.6

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	74	11	8	90	2	14	2	14	5	0	1
Future Vol, veh/h	1	74	11	8	90	2	14	2	14	5	0	1
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	74	11	8	90	2	14	2	14	5	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	96	0	0	86	0	0	192	195	82	202	199	96
Stage 1	-	-	-	-	-	-	83	83	-	111	111	-
Stage 2	-	-	-	-	-	-	109	112	-	91	88	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1498	-	-	1510	-	-	768	700	978	756	697	960
Stage 1	-	-	-	-	-	-	925	826	-	894	804	-
Stage 2	-	-	-	-	-	-	896	803	-	916	822	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1493	-	-	1509	-	-	762	692	976	736	689	956
Mov Cap-2 Maneuver	-	-	-	-	-	-	762	692	-	736	689	-
Stage 1	-	-	-	-	-	-	923	824	-	890	797	-
Stage 2	-	-	-	-	-	-	889	796	-	899	820	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.6	9.4	9.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	843	1493	-	-	1509	-	-	765
HCM Lane V/C Ratio	0.036	0.001	-	-	0.005	-	-	0.008
HCM Control Delay (s)	9.4	7.4	0	-	7.4	0	-	9.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	40	6	9	57	9	16	14	18	5	31	7
Future Vol, veh/h	7	40	6	9	57	9	16	14	18	5	31	7
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	40	6	9	57	9	16	14	18	5	31	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	68	0	0	48	0	0	159	145	46	156	144	65
Stage 1	-	-	-	-	-	-	59	59	-	82	82	-
Stage 2	-	-	-	-	-	-	100	86	-	74	62	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1533	-	-	1559	-	-	807	746	1023	810	747	999
Stage 1	-	-	-	-	-	-	953	846	-	926	827	-
Stage 2	-	-	-	-	-	-	906	824	-	935	843	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1530	-	-	1556	-	-	767	735	1020	776	736	997
Mov Cap-2 Maneuver	-	-	-	-	-	-	767	735	-	776	736	-
Stage 1	-	-	-	-	-	-	946	840	-	920	820	-
Stage 2	-	-	-	-	-	-	860	817	-	898	837	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.9	9.6	9.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	834	1530	-	-	1556	-	-	774
HCM Lane V/C Ratio	0.058	0.005	-	-	0.006	-	-	0.056
HCM Control Delay (s)	9.6	7.4	0	-	7.3	0	-	9.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	46	2	13	55	2	7	11	13	1	3	5
Future Vol, veh/h	1	46	2	13	55	2	7	11	13	1	3	5
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	46	2	13	55	2	7	11	13	1	3	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	58	0	0	48	0	0	136	133	49	146	133	58
Stage 1	-	-	-	-	-	-	49	49	-	83	83	-
Stage 2	-	-	-	-	-	-	87	84	-	63	50	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1546	-	-	1559	-	-	835	758	1020	823	758	1008
Stage 1	-	-	-	-	-	-	964	854	-	925	826	-
Stage 2	-	-	-	-	-	-	921	825	-	948	853	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1545	-	-	1559	-	-	822	750	1018	795	750	1006
Mov Cap-2 Maneuver	-	-	-	-	-	-	822	750	-	795	750	-
Stage 1	-	-	-	-	-	-	963	853	-	923	818	-
Stage 2	-	-	-	-	-	-	904	817	-	921	852	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.4	9.3	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	862	1545	-	-	1559	-	-	880
HCM Lane V/C Ratio	0.036	0.001	-	-	0.008	-	-	0.01
HCM Control Delay (s)	9.3	7.3	0	-	7.3	0	-	9.1
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	44	0	18	42	3	36
Future Vol, veh/h	44	0	18	42	3	36
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	0	18	42	3	36

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	47	0	126	47
Stage 1	-	-	-	-	47	-
Stage 2	-	-	-	-	79	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1560	-	889	1022
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	957	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1556	-	876	1019
Mov Cap-2 Maneuver	-	-	-	-	876	-
Stage 1	-	-	-	-	973	-
Stage 2	-	-	-	-	945	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1006	-	-	1556	-
HCM Lane V/C Ratio	0.039	-	-	0.012	-
HCM Control Delay (s)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	36	50	8	5	65	4	2	4	3	2	3	35
Future Vol, veh/h	36	50	8	5	65	4	2	4	3	2	3	35
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	50	8	5	65	4	2	4	3	2	3	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	71	0	0	59	0	0	224	208	55	209	210	70
Stage 1	-	-	-	-	-	-	127	127	-	79	79	-
Stage 2	-	-	-	-	-	-	97	81	-	130	131	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1529	-	-	1545	-	-	732	689	1012	748	687	993
Stage 1	-	-	-	-	-	-	877	791	-	930	829	-
Stage 2	-	-	-	-	-	-	910	828	-	874	788	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1526	-	-	1544	-	-	688	668	1011	726	666	991
Mov Cap-2 Maneuver	-	-	-	-	-	-	688	668	-	726	666	-
Stage 1	-	-	-	-	-	-	855	771	-	906	825	-
Stage 2	-	-	-	-	-	-	871	824	-	846	768	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.8	0.5	9.8	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	759	1526	-	-	1544	-	-	939
HCM Lane V/C Ratio	0.012	0.024	-	-	0.003	-	-	0.043
HCM Control Delay (s)	9.8	7.4	0	-	7.3	0	-	9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	21	7	18	44	56	6	136	13	93	215	54
Future Vol, veh/h	36	21	7	18	44	56	6	136	13	93	215	54
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	21	7	18	44	56	6	136	13	93	215	54
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	9.1	11.4
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	56%	15%	26%
Vol Thru, %	88%	33%	37%	59%
Vol Right, %	8%	11%	47%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	155	64	118	362
LT Vol	6	36	18	93
Through Vol	136	21	44	215
RT Vol	13	7	56	54
Lane Flow Rate	155	64	118	362
Geometry Grp	1	1	1	1
Degree of Util (X)	0.205	0.095	0.163	0.456
Departure Headway (Hd)	4.765	5.338	4.958	4.539
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	749	666	719	789
Service Time	2.824	3.41	3.023	2.588
HCM Lane V/C Ratio	0.207	0.096	0.164	0.459
HCM Control Delay	9.1	9	9	11.4
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.8	0.3	0.6	2.4

Intersection	
Intersection Delay, s/veh	39.5
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	102	48	37	21	31	108	19	306	55	99	413	105
Future Vol, veh/h	102	48	37	21	31	108	19	306	55	99	413	105
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	102	48	37	21	31	108	19	306	55	99	413	105
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	15	13.5	21.4	64.8
HCM LOS	B	B	C	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	55%	13%	16%
Vol Thru, %	81%	26%	19%	67%
Vol Right, %	14%	20%	68%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	380	187	160	617
LT Vol	19	102	21	99
Through Vol	306	48	31	413
RT Vol	55	37	108	105
Lane Flow Rate	380	187	160	617
Geometry Grp	1	1	1	1
Degree of Util (X)	0.668	0.382	0.316	1.015
Departure Headway (Hd)	6.333	7.358	7.221	5.92
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	566	486	501	611
Service Time	4.413	5.456	5.221	3.985
HCM Lane V/C Ratio	0.671	0.385	0.319	1.01
HCM Control Delay	21.4	15	13.5	64.8
HCM Lane LOS	C	B	B	F
HCM 95th-tile Q	5	1.8	1.3	15.7

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	13	85	1	13	0	135	3	5	0	0	0
Future Vol, veh/h	2	13	85	1	13	0	135	3	5	0	0	0
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	13	85	1	13	0	135	3	5	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	13	0	0	99	0	0	76	76	57	79	118	13
Stage 1	-	-	-	-	-	-	61	61	-	15	15	-
Stage 2	-	-	-	-	-	-	15	15	-	64	103	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1606	-	-	1494	-	-	914	814	1009	910	772	1067
Stage 1	-	-	-	-	-	-	950	844	-	1005	883	-
Stage 2	-	-	-	-	-	-	1005	883	-	947	810	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1606	-	-	1493	-	-	912	812	1008	902	770	1067
Mov Cap-2 Maneuver	-	-	-	-	-	-	912	812	-	902	770	-
Stage 1	-	-	-	-	-	-	948	842	-	1004	882	-
Stage 2	-	-	-	-	-	-	1004	882	-	938	808	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.5	9.7	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	913	1606	-	-	1493	-	-	-
HCM Lane V/C Ratio	0.157	0.001	-	-	0.001	-	-	-
HCM Control Delay (s)	9.7	7.2	0	-	7.4	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	49	23	9	872	758	143
Future Vol, veh/h	49	23	9	872	758	143
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	23	9	872	758	143

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1651	761	904	0	-	0
Stage 1	761	-	-	-	-	-
Stage 2	890	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	109	405	752	-	-	-
Stage 1	461	-	-	-	-	-
Stage 2	401	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	106	404	750	-	-	-
Mov Cap-2 Maneuver	301	-	-	-	-	-
Stage 1	449	-	-	-	-	-
Stage 2	400	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	750	-	328	-	-
HCM Lane V/C Ratio	0.012	-	0.22	-	-
HCM Control Delay (s)	9.9	0	19	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.8	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	654	18	398	499	0	999
Future Volume (veh/h)	654	18	398	499	0	999
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	654	18	398	0	0	999
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	715	20	1329	0	0	1329
Arrive On Green	0.42	0.42	0.38	0.00	0.00	0.38
Sat Flow, veh/h	1719	47	3725	0	0	3725
Grp Volume(v), veh/h	673	0	398	0	0	999
Grp Sat Flow(s),veh/h/ln	1768	0	1770	0	0	1770
Q Serve(g_s), s	12.9	0.0	2.8	0.0	0.0	8.8
Cycle Q Clear(g_c), s	12.9	0.0	2.8	0.0	0.0	8.8
Prop In Lane	0.97	0.03		0.00	0.00	
Lane Grp Cap(c), veh/h	736	0	1329	0	0	1329
V/C Ratio(X)	0.91	0.00	0.30	0.00	0.00	0.75
Avail Cap(c_a), veh/h	836	0	1525	0	0	1525
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	9.9	0.0	7.9	0.0	0.0	9.8
Incr Delay (d2), s/veh	12.7	0.0	0.2	0.0	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	0.0	1.4	0.0	0.0	4.5
LnGrp Delay(d),s/veh	22.6	0.0	8.1	0.0	0.0	11.7
LnGrp LOS	C		A			B
Approach Vol, veh/h	673		398			999
Approach Delay, s/veh	22.6		8.1			11.7
Approach LOS	C		A			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		18.0		18.0		18.0		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		15.5		17.0		15.5		
Max Q Clear Time (g_c+I1), s		4.8		14.9		10.8		
Green Ext Time (p_c), s		2.2		0.1		2.7		

Intersection Summary	
HCM 2010 Ctrl Delay	14.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	379	529	33	482	136	166	277	23	76	400	18
Future Volume (veh/h)	40	379	529	33	482	136	166	277	23	76	400	18
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.90	1.00		0.97	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	40	379	529	33	482	136	166	277	23	76	400	18
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	793	900	66	774	217	187	312	418	85	449	444
Arrive On Green	0.33	0.33	0.33	0.33	0.33	0.33	0.27	0.27	0.27	0.29	0.29	0.29
Sat Flow, veh/h	164	2414	1424	91	2356	661	685	1143	1532	295	1553	1534
Grp Volume(v), veh/h	160	259	529	343	0	308	443	0	23	476	0	18
Grp Sat Flow(s),veh/h/ln	968	1610	1424	1612	0	1495	1828	0	1532	1848	0	1534
Q Serve(g_s), s	3.0	14.1	25.8	5.1	0.0	19.1	25.5	0.0	1.2	27.0	0.0	0.9
Cycle Q Clear(g_c), s	22.1	14.1	25.8	19.1	0.0	19.1	25.5	0.0	1.2	27.0	0.0	0.9
Prop In Lane	0.25		1.00	0.10		0.44	0.37		1.00	0.16		1.00
Lane Grp Cap(c), veh/h	359	529	900	566	0	491	499	0	418	534	0	444
V/C Ratio(X)	0.45	0.49	0.59	0.61	0.00	0.63	0.89	0.00	0.05	0.89	0.00	0.04
Avail Cap(c_a), veh/h	359	529	900	566	0	491	667	0	559	708	0	588
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.3	29.4	13.9	30.6	0.0	31.1	38.2	0.0	29.4	37.3	0.0	28.0
Incr Delay (d2), s/veh	4.0	3.2	2.8	4.8	0.0	5.9	11.1	0.0	0.1	10.9	0.0	0.0
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	4.6	6.7	16.6	9.5	0.0	8.7	14.3	0.0	0.5	15.4	0.0	0.4
LnGrp Delay(d),s/veh	33.3	32.7	16.7	35.4	0.0	37.1	49.3	0.0	29.5	48.2	0.0	28.1
LnGrp LOS	C	C	B	D		D	D		C	D		C
Approach Vol, veh/h		948			651			466			494	
Approach Delay, s/veh		23.8			36.2			48.3			47.5	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		40.0		33.9		40.0		35.7
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		36.0		40.0		36.0		42.0
Max Q Clear Time (g_c+I1), s		27.8		27.5		21.1		29.0
Green Ext Time (p_c), s		3.2		2.4		3.9		2.7

Intersection Summary	
HCM 2010 Ctrl Delay	36.0
HCM 2010 LOS	D

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	374	391	225	455	509	310
Future Volume (veh/h)	374	391	225	455	509	310
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	374	391	225	455	509	310
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	407	1167	683	1051	548	852
Arrive On Green	0.23	0.63	0.37	0.37	0.31	0.31
Sat Flow, veh/h	1774	1863	1863	1533	1774	1583
Grp Volume(v), veh/h	374	391	225	455	509	310
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1533	1774	1583
Q Serve(g_s), s	26.9	12.9	11.4	17.9	36.3	14.7
Cycle Q Clear(g_c), s	26.9	12.9	11.4	17.9	36.3	14.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	407	1167	683	1051	548	852
V/C Ratio(X)	0.92	0.33	0.33	0.43	0.93	0.36
Avail Cap(c_a), veh/h	612	1167	683	1051	813	1088
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	49.1	11.5	29.8	9.8	43.7	17.3
Incr Delay (d2), s/veh	14.2	0.8	1.3	1.3	11.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.8	6.9	6.1	15.2	19.6	16.4
LnGrp Delay(d),s/veh	63.3	12.3	31.0	11.1	55.4	17.5
LnGrp LOS	E	B	C	B	E	B
Approach Vol, veh/h		765	680		819	
Approach Delay, s/veh		37.2	17.7		41.0	
Approach LOS		D	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		86.0		44.5	33.9	52.1		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 82		* 60	45.0	* 33		
Max Q Clear Time (g_c+I1), s		14.9		38.3	28.9	19.9		
Green Ext Time (p_c), s		1.6		2.0	1.0	1.6		

Intersection Summary	
HCM 2010 Ctrl Delay	32.7
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	132	12	45	19	173	1	803	82	289	933	33
Future Volume (veh/h)	193	132	12	45	19	173	1	803	82	289	933	33
Number	7	4	14	3	8	18	1	6	16	5	2	12
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		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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	193	132	12	45	19	173	1	803	82	289	933	33
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	277	157	13	323	124	852	45	921	94	447	2071	73
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.25	0.59	0.59
Sat Flow, veh/h	708	539	46	847	425	1558	1	3167	323	1774	3487	123
Grp Volume(v), veh/h	337	0	0	64	0	173	473	0	413	289	473	493
Grp Sat Flow(s),veh/h/ln	1293	0	0	1272	0	1558	1862	0	1629	1774	1770	1841
Q Serve(g_s), s	17.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.3	11.6	11.9	11.9
Cycle Q Clear(g_c), s	20.3	0.0	0.0	2.7	0.0	0.0	19.3	0.0	19.3	11.6	11.9	11.9
Prop In Lane	0.57		0.04	0.70		1.00	0.00		0.20	1.00		0.07
Lane Grp Cap(c), veh/h	447	0	0	447	0	852	587	0	474	447	1051	1093
V/C Ratio(X)	0.75	0.00	0.00	0.14	0.00	0.20	0.81	0.00	0.87	0.65	0.45	0.45
Avail Cap(c_a), veh/h	512	0	0	511	0	924	634	0	515	447	1051	1093
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	0.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	28.0	0.0	0.0	21.0	0.0	9.4	26.9	0.0	27.0	26.7	9.0	9.0
Incr Delay (d2), s/veh	5.0	0.0	0.0	0.1	0.0	0.1	11.3	0.0	19.4	2.1	1.2	1.1
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	7.7	0.0	0.0	1.1	0.0	1.9	11.7	0.0	11.2	6.0	6.1	6.4
LnGrp Delay(d),s/veh	33.1	0.0	0.0	21.1	0.0	9.5	38.2	0.0	46.4	28.9	10.2	10.1
LnGrp LOS	C			C		A	D		D	C	B	B
Approach Vol, veh/h		337			237			886			1255	
Approach Delay, s/veh		33.1			12.6			42.0			14.5	
Approach LOS		C			B			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		52.1		27.9	24.7	27.4		27.9
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		43.8		27.0	14.9	* 25		27.0
Max Q Clear Time (g_c+I1), s		13.9		22.3	13.6	21.3		4.7
Green Ext Time (p_c), s		7.3		0.8	0.1	2.0		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	25.6
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	573	1704	1000	286	565	841
Future Volume (veh/h)	573	1704	1000	286	565	841
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	573	1704	1000	286	565	841
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	651	2742	1162	332	635	1525
Arrive On Green	0.19	0.54	0.30	0.30	0.36	0.36
Sat Flow, veh/h	3442	5253	4058	1111	1774	2787
Grp Volume(v), veh/h	573	1704	871	415	565	841
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1610	1774	1393
Q Serve(g_s), s	12.6	18.1	18.9	18.9	23.4	15.2
Cycle Q Clear(g_c), s	12.6	18.1	18.9	18.9	23.4	15.2
Prop In Lane	1.00			0.69	1.00	1.00
Lane Grp Cap(c), veh/h	651	2742	1013	481	635	1525
V/C Ratio(X)	0.88	0.62	0.86	0.86	0.89	0.55
Avail Cap(c_a), veh/h	663	2742	1013	481	683	1600
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	30.7	12.4	25.8	25.8	23.5	11.4
Incr Delay (d2), s/veh	13.0	1.1	9.5	18.1	13.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	8.6	10.2	10.8	13.6	5.8
LnGrp Delay(d),s/veh	43.7	13.5	35.3	43.9	36.7	11.8
LnGrp LOS	D	B	D	D	D	B
Approach Vol, veh/h		2277	1286		1406	
Approach Delay, s/veh		21.1	38.0		21.8	
Approach LOS		C	D		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	18.7	27.3				46.0		31.9
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	15.0	23.0				42.0		30.0
Max Q Clear Time (g_c+I1), s	14.6	20.9				20.1		25.4
Green Ext Time (p_c), s	0.1	1.5				13.1		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	25.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	472	50	209	29	17	27	99	767	90	28	1103	449
Future Volume (veh/h)	472	50	209	29	17	27	99	767	90	28	1103	449
Number	3	8	18	7	4	14	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		0.98	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	508	0	209	29	17	27	99	767	90	28	1103	449
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	580	0	257	104	37	60	522	2311	1101	36	1326	836
Arrive On Green	0.16	0.00	0.16	0.06	0.06	0.06	0.59	1.00	1.00	0.02	0.37	0.37
Sat Flow, veh/h	3548	0	1572	1774	641	1017	1774	3539	1545	1774	3539	1540
Grp Volume(v), veh/h	508	0	209	29	0	44	99	767	90	28	1103	449
Grp Sat Flow(s),veh/h/ln	1774	0	1572	1774	0	1658	1774	1770	1545	1774	1770	1540
Q Serve(g_s), s	22.4	0.0	20.5	2.5	0.0	4.1	4.1	0.0	0.0	2.5	45.3	30.4
Cycle Q Clear(g_c), s	22.4	0.0	20.5	2.5	0.0	4.1	4.1	0.0	0.0	2.5	45.3	30.4
Prop In Lane	1.00		1.00	1.00		0.61	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	580	0	257	104	0	97	522	2311	1101	36	1326	836
V/C Ratio(X)	0.88	0.00	0.81	0.28	0.00	0.45	0.19	0.33	0.08	0.79	0.83	0.54
Avail Cap(c_a), veh/h	820	0	363	299	0	280	522	2311	1101	67	1398	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.74	0.74	0.74	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.3	0.0	64.6	72.1	0.0	72.8	24.1	0.0	0.0	78.0	45.4	24.1
Incr Delay (d2), s/veh	7.0	0.0	8.0	1.1	0.0	2.4	0.0	0.3	0.1	13.1	6.2	2.5
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	11.6	0.0	9.5	1.3	0.0	1.9	2.0	0.1	0.0	1.4	23.2	18.0
LnGrp Delay(d),s/veh	72.3	0.0	72.5	73.2	0.0	75.3	24.1	0.3	0.1	91.1	51.6	26.5
LnGrp LOS	E		E	E		E	C	A	A	F	D	C
Approach Vol, veh/h		717			73			956			1580	
Approach Delay, s/veh		72.4			74.4			2.7			45.2	
Approach LOS		E			E			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.2	109.1		13.6	51.7	64.6		30.2
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.6	* 4.6		4.0
Max Green Setting (Gmax), s	6.0	73.2		* 27	16.0	* 63		37.0
Max Q Clear Time (g_c+I1), s	4.5	2.0		6.1	6.1	47.3		24.4
Green Ext Time (p_c), s	0.0	15.2		0.2	0.1	12.7		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	39.5
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	397	90	241	441	32	125	162	272	53	216	100
Future Volume (veh/h)	40	397	90	241	441	32	125	162	272	53	216	100
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		0.96	1.00		0.97	1.00		0.97	1.00		0.97
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	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	40	397	90	241	441	32	125	162	272	53	216	100
Adj No. of Lanes	1	1	1	1	1	0	0	1	1	0	1	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	60	490	402	297	679	49	240	274	517	111	288	119
Arrive On Green	0.03	0.26	0.26	0.17	0.40	0.40	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1774	1863	1526	1774	1712	124	414	810	1529	93	852	351
Grp Volume(v), veh/h	40	397	90	241	0	473	287	0	272	369	0	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1526	1774	0	1836	1224	0	1529	1296	0	0
Q Serve(g_s), s	1.2	10.3	2.4	6.8	0.0	10.8	0.0	0.0	7.4	4.3	0.0	0.0
Cycle Q Clear(g_c), s	1.2	10.3	2.4	6.8	0.0	10.8	10.2	0.0	7.4	14.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.07	0.44		1.00	0.14		0.27
Lane Grp Cap(c), veh/h	60	490	402	297	0	728	513	0	517	517	0	0
V/C Ratio(X)	0.67	0.81	0.22	0.81	0.00	0.65	0.56	0.00	0.53	0.71	0.00	0.00
Avail Cap(c_a), veh/h	137	576	472	377	0	816	608	0	620	623	0	0
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	24.7	17.9	14.9	20.8	0.0	12.7	14.2	0.0	13.8	15.5	0.0	0.0
Incr Delay (d2), s/veh	12.0	7.4	0.3	10.2	0.0	1.5	1.0	0.0	0.8	3.1	0.0	0.0
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	0.8	6.3	1.0	4.1	0.0	5.7	3.6	0.0	3.2	5.4	0.0	0.0
LnGrp Delay(d),s/veh	36.8	25.2	15.2	31.0	0.0	14.2	15.2	0.0	14.6	18.6	0.0	0.0
LnGrp LOS	D	C	B	C		B	B		B	B		
Approach Vol, veh/h		527			714			559			369	
Approach Delay, s/veh		24.4			19.9			14.9			18.6	
Approach LOS		C			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		21.5	12.7	17.6		21.5	5.7	24.5
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		21.0	11.0	16.0		21.0	4.0	23.0
Max Q Clear Time (g_c+I1), s		12.2	8.8	12.3		16.5	3.2	12.8
Green Ext Time (p_c), s		2.0	0.2	1.0		1.0	0.0	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	320	0	321	365	228	0	1942	115	168	1538	13
Future Volume (veh/h)	2	320	0	321	365	228	0	1942	115	168	1538	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	5	20	0	118	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	2	320	0	321	365	228	0	1942	115	168	1538	0
Adj No. of Lanes	1	2	0	1	1	1	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	4	445	0	342	555	473	1	2458	57	187	2190	980
Arrive On Green	0.00	0.10	0.00	0.19	0.30	0.30	0.00	0.51	0.51	0.11	0.64	0.00
Sat Flow, veh/h	1774	3632	0	1774	1863	1549	1774	4908	290	1774	3539	1583
Grp Volume(v), veh/h	2	320	0	321	365	228	0	1339	718	168	1538	0
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1774	1863	1549	1774	1695	1807	1774	1770	1583
Q Serve(g_s), s	0.2	16.4	0.0	32.8	31.6	17.7	0.0	58.9	59.4	17.2	51.3	0.0
Cycle Q Clear(g_c), s	0.2	16.4	0.0	32.8	31.6	17.7	0.0	58.9	59.4	17.2	51.3	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	4	445	0	342	555	473	1	1626	886	187	2190	980
V/C Ratio(X)	0.53	0.72	0.00	0.94	0.66	0.48	0.00	0.82	0.81	0.90	0.70	0.00
Avail Cap(c_a), veh/h	39	442	0	443	657	547	39	1729	922	250	2256	1009
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	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	95.2	80.2	0.0	76.0	57.6	35.2	0.0	51.0	50.2	84.5	24.7	0.0
Incr Delay (d2), s/veh	85.0	5.6	0.0	24.5	1.9	0.8	0.0	4.9	7.9	26.5	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	1.7	24.8	0.0	94.8	74.9	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	8.5	0.0	19.1	18.2	15.3	0.0	66.5	67.3	10.1	27.9	0.0
LnGrp Delay(d),s/veh	180.2	85.8	0.0	100.5	61.1	60.8	0.0	150.6	133.1	111.0	26.6	0.0
LnGrp LOS	F	F		F	E	E		F	F	F	C	
Approach Vol, veh/h		322			914			2057			1706	
Approach Delay, s/veh		86.4			74.9			144.5			34.9	
Approach LOS		F			E			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	23.5	98.0	39.6	23.2	0.0	121.5	4.4	58.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	26.0	94.0	46.0	23.0	4.0	116.0	4.0	65.0
Max Q Clear Time (g_c+I1), s	19.2	61.4	34.8	18.4	0.0	53.3	2.2	33.6
Green Ext Time (p_c), s	0.2	20.8	0.7	0.8	0.0	20.1	0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	90.6
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	246	450	112	673	441	293	143	2217	608	319	1783	135
Future Volume (veh/h)	246	450	112	673	441	293	143	2217	608	319	1783	135
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		0.96	1.00		0.96	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	246	450	112	673	441	293	143	2217	608	319	1783	135
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	414	102	551	362	414	142	1861	1075	256	1840	1004
Arrive On Green	0.11	0.15	0.15	0.16	0.19	0.19	0.08	0.53	0.53	0.07	0.52	0.52
Sat Flow, veh/h	1774	2790	688	3442	1863	1527	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	246	284	278	673	441	293	143	2217	608	319	1783	135
Grp Sat Flow(s),veh/h/ln	1774	1770	1708	1721	1863	1527	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	20.0	26.0	26.0	28.0	34.0	30.4	14.0	92.0	35.0	13.0	85.3	6.0
Cycle Q Clear(g_c), s	20.0	26.0	26.0	28.0	34.0	30.4	14.0	92.0	35.0	13.0	85.3	6.0
Prop In Lane	1.00		0.40	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	203	263	254	551	362	414	142	1861	1075	256	1840	1004
V/C Ratio(X)	1.21	1.08	1.10	1.22	1.22	0.71	1.01	1.19	0.57	1.25	0.97	0.13
Avail Cap(c_a), veh/h	203	263	254	551	362	414	142	1861	1075	256	1840	1004
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	77.5	74.5	74.5	73.5	70.5	57.9	80.5	41.5	14.1	81.0	40.6	12.8
Incr Delay (d2), s/veh	132.6	78.3	84.6	115.5	120.9	5.4	77.6	91.8	2.2	139.8	14.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.3	18.4	18.2	22.1	29.6	13.5	9.9	68.4	15.7	11.1	45.4	2.7
LnGrp Delay(d),s/veh	210.1	152.8	159.1	189.0	191.4	63.4	158.1	133.3	16.3	220.8	55.4	13.1
LnGrp LOS	F	F	F	F	F	E	F	F	B	F	E	B
Approach Vol, veh/h		808			1407			2968			2237	
Approach Delay, s/veh		172.4			163.6			110.6			76.4	
Approach LOS		F			F			F			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	17.0	96.0	32.0	30.0	18.0	95.0	24.0	38.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	92.0	28.0	26.0	14.0	91.0	20.0	34.0
Max Q Clear Time (g_c+I1), s	15.0	94.0	30.0	28.0	16.0	87.3	22.0	36.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	117.1
HCM 2010 LOS	F

Notes
User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1024	619	1475	0	0	1285
Future Volume (veh/h)	1024	619	1475	0	0	1285
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	1024	619	1475	0	0	1285
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	1186	960	1952	0	0	1952
Arrive On Green	0.34	0.34	0.55	0.00	0.00	0.55
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	1024	619	1475	0	0	1285
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	22.2	15.0	25.6	0.0	0.0	20.4
Cycle Q Clear(g_c), s	22.2	15.0	25.6	0.0	0.0	20.4
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	1186	960	1952	0	0	1952
V/C Ratio(X)	0.86	0.64	0.76	0.00	0.00	0.66
Avail Cap(c_a), veh/h	1282	1038	1952	0	0	1952
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.64	0.00	0.00	1.00
Uniform Delay (d), s/veh	24.5	22.1	13.8	0.0	0.0	12.6
Incr Delay (d2), s/veh	6.0	1.2	1.8	0.0	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	5.9	12.8	0.0	0.0	10.3
LnGrp Delay(d),s/veh	30.4	23.3	15.6	0.0	0.0	14.4
LnGrp LOS	C	C	B			B
Approach Vol, veh/h	1643		1475			1285
Approach Delay, s/veh	27.8		15.6			14.4
Approach LOS	C		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		48.2				48.2		31.8
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		41.9				41.9		29.8
Max Q Clear Time (g_c+I1), s		27.6				22.4		24.2
Green Ext Time (p_c), s		9.1				9.7		3.4

Intersection Summary	
HCM 2010 Ctrl Delay	19.8
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1091	320	0	847	1749	0
Future Volume (veh/h)	1091	320	0	847	1749	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1091	320	0	847	1749	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1183	544	0	1960	1960	0
Arrive On Green	0.34	0.34	0.00	0.55	0.74	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1091	320	0	847	1749	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	24.4	13.3	0.0	11.2	30.4	0.0
Cycle Q Clear(g_c), s	24.4	13.3	0.0	11.2	30.4	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1183	544	0	1960	1960	0
V/C Ratio(X)	0.92	0.59	0.00	0.43	0.89	0.00
Avail Cap(c_a), veh/h	1248	574	0	1960	1960	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.59	0.00
Uniform Delay (d), s/veh	25.2	21.6	0.0	10.5	8.7	0.0
Incr Delay (d2), s/veh	10.7	0.9	0.0	0.7	4.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.3	5.9	0.0	5.6	15.4	0.0
LnGrp Delay(d),s/veh	35.9	22.5	0.0	11.2	12.8	0.0
LnGrp LOS	D	C		B	B	
Approach Vol, veh/h	1411			847	1749	
Approach Delay, s/veh	32.8			11.2	12.8	
Approach LOS	C			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		48.4		31.6		48.4		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		42.8		29.0		42.8		
Max Q Clear Time (g_c+I1), s		13.2		26.4		32.4		
Green Ext Time (p_c), s		4.4		1.1		6.7		

Intersection Summary	
HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	28.3
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	39	408	58	115	532	45	74	127	90	30	145	83
Future Vol, veh/h	39	408	58	115	532	45	74	127	90	30	145	83
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	408	58	115	532	45	74	127	90	30	145	83
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	21.9	36.5	25.2	22.3
HCM LOS	C	E	D	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	25%	16%	0%	30%	0%	12%
Vol Thru, %	44%	84%	78%	70%	86%	56%
Vol Right, %	31%	0%	22%	0%	14%	32%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	291	243	262	381	311	258
LT Vol	74	39	0	115	0	30
Through Vol	127	204	204	266	266	145
RT Vol	90	0	58	0	45	83
Lane Flow Rate	291	243	262	381	311	258
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.653	0.566	0.592	0.866	0.684	0.588
Departure Headway (Hd)	8.08	8.38	8.136	8.179	7.918	8.198
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	448	430	443	442	457	441
Service Time	6.127	6.13	5.886	5.929	5.668	6.246
HCM Lane V/C Ratio	0.65	0.565	0.591	0.862	0.681	0.585
HCM Control Delay	25.2	21.6	22.1	44.9	26.2	22.3
HCM Lane LOS	D	C	C	E	D	C
HCM 95th-tile Q	4.6	3.4	3.7	8.8	5.1	3.7

Intersection	
Int Delay, s/veh	19

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	60	875	7	8	508	54	9	6	35	107	2	91
Future Vol, veh/h	60	875	7	8	508	54	9	6	35	107	2	91
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	875	7	8	508	54	9	6	35	107	2	91

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	593	0	0	898	0	0	1286	1624	482	1168	1600	312
Stage 1	-	-	-	-	-	-	1015	1015	-	582	582	-
Stage 2	-	-	-	-	-	-	271	609	-	586	1018	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	979	-	-	752	-	-	122	102	530	149	105	684
Stage 1	-	-	-	-	-	-	255	314	-	466	497	-
Stage 2	-	-	-	-	-	-	712	484	-	463	313	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	954	-	-	742	-	-	91	85	512	112	87	666
Mov Cap-2 Maneuver	-	-	-	-	-	-	91	85	-	112	87	-
Stage 1	-	-	-	-	-	-	220	272	-	397	476	-
Stage 2	-	-	-	-	-	-	602	464	-	362	271	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.2	27.4	155.5
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	210	954	-	-	742	-	-	179
HCM Lane V/C Ratio	0.238	0.063	-	-	0.011	-	-	1.117
HCM Control Delay (s)	27.4	9	0.5	-	9.9	0.1	-	155.5
HCM Lane LOS	D	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.9	0.2	-	-	0	-	-	10.1

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	0	89	29	72	144	1	13	1	79	4	5	0
Future Vol, veh/h	0	89	29	72	144	1	13	1	79	4	5	0
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	89	29	72	144	1	13	1	79	4	5	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	149	0	0	119	0	0	397	398	106	438	412	150
Stage 1	-	-	-	-	-	-	105	105	-	293	293	-
Stage 2	-	-	-	-	-	-	292	293	-	145	119	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1432	-	-	1469	-	-	563	540	948	529	530	896
Stage 1	-	-	-	-	-	-	901	808	-	715	670	-
Stage 2	-	-	-	-	-	-	716	670	-	858	797	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1427	-	-	1468	-	-	535	509	946	462	500	892
Mov Cap-2 Maneuver	-	-	-	-	-	-	535	509	-	462	500	-
Stage 1	-	-	-	-	-	-	900	807	-	713	632	-
Stage 2	-	-	-	-	-	-	672	632	-	785	796	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.5	9.8	12.6
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	847	1427	-	-	1468	-	-	482
HCM Lane V/C Ratio	0.11	-	-	-	0.049	-	-	0.019
HCM Control Delay (s)	9.8	0	-	-	7.6	0	-	12.6
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0.2	-	-	0.1

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	74	20	89	104	2	5	12	17	6	54	29
Future Vol, veh/h	7	74	20	89	104	2	5	12	17	6	54	29
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	74	20	89	104	2	5	12	17	6	54	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	108	0	0	96	0	0	426	386	87	399	395	108
Stage 1	-	-	-	-	-	-	100	100	-	285	285	-
Stage 2	-	-	-	-	-	-	326	286	-	114	110	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1483	-	-	1498	-	-	539	548	971	561	542	946
Stage 1	-	-	-	-	-	-	906	812	-	722	676	-
Stage 2	-	-	-	-	-	-	687	675	-	891	804	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1481	-	-	1496	-	-	454	509	969	512	504	944
Mov Cap-2 Maneuver	-	-	-	-	-	-	454	509	-	512	504	-
Stage 1	-	-	-	-	-	-	900	806	-	717	632	-
Stage 2	-	-	-	-	-	-	570	631	-	857	798	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	3.5	10.8	12.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	652	1481	-	-	1496	-	-	595
HCM Lane V/C Ratio	0.052	0.005	-	-	0.059	-	-	0.15
HCM Control Delay (s)	10.8	7.4	0	-	7.6	0	-	12.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.2	-	-	0.5

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	82	10	64	181	1	10	3	18	3	7	8
Future Vol, veh/h	10	82	10	64	181	1	10	3	18	3	7	8
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	82	10	64	181	1	10	3	18	3	7	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	183	0	0	92	0	0	425	418	89	431	423	184
Stage 1	-	-	-	-	-	-	107	107	-	311	311	-
Stage 2	-	-	-	-	-	-	318	311	-	120	112	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1392	-	-	1503	-	-	540	526	969	535	522	858
Stage 1	-	-	-	-	-	-	898	807	-	699	658	-
Stage 2	-	-	-	-	-	-	693	658	-	884	803	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1391	-	-	1503	-	-	507	497	967	500	493	857
Mov Cap-2 Maneuver	-	-	-	-	-	-	507	497	-	500	493	-
Stage 1	-	-	-	-	-	-	891	801	-	693	626	-
Stage 2	-	-	-	-	-	-	646	626	-	856	797	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	2	10.4	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	699	1391	-	-	1503	-	-	609
HCM Lane V/C Ratio	0.044	0.007	-	-	0.043	-	-	0.03
HCM Control Delay (s)	10.4	7.6	0	-	7.5	0	-	11.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	4.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	163	2	38	82	2	158
Future Vol, veh/h	163	2	38	82	2	158
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	163	2	38	82	2	158

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	168	0	326	167
Stage 1	-	-	-	-	167	-
Stage 2	-	-	-	-	159	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1410	-	689	877
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	888	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1406	-	668	875
Mov Cap-2 Maneuver	-	-	-	-	668	-
Stage 1	-	-	-	-	861	-
Stage 2	-	-	-	-	863	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	872	-	-	1406	-
HCM Lane V/C Ratio	0.183	-	-	0.027	-
HCM Control Delay (s)	10.1	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	92	83	1	2	138	3	3	5	5	6	5	77
Future Vol, veh/h	92	83	1	2	138	3	3	5	5	6	5	77
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	92	83	1	2	138	3	3	5	5	6	5	77

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	143	0	0	85	0	0	455	416	85	419	415	143
Stage 1	-	-	-	-	-	-	269	269	-	146	146	-
Stage 2	-	-	-	-	-	-	186	147	-	273	269	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1440	-	-	1512	-	-	515	527	974	544	528	905
Stage 1	-	-	-	-	-	-	737	687	-	857	776	-
Stage 2	-	-	-	-	-	-	816	775	-	733	687	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1438	-	-	1511	-	-	442	490	973	508	491	903
Mov Cap-2 Maneuver	-	-	-	-	-	-	442	490	-	508	491	-
Stage 1	-	-	-	-	-	-	687	640	-	798	774	-
Stage 2	-	-	-	-	-	-	740	773	-	675	640	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4	0.1	11.3	9.9
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	587	1438	-	-	1511	-	-	820
HCM Lane V/C Ratio	0.022	0.064	-	-	0.001	-	-	0.107
HCM Control Delay (s)	11.3	7.7	0	-	7.4	0	-	9.9
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.4

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	33	33	7	12	41	55	5	130	29	62	152	35
Future Vol, veh/h	33	33	7	12	41	55	5	130	29	62	152	35
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	33	7	12	41	55	5	130	29	62	152	35
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	8.7	8.5	8.8	9.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	45%	11%	25%
Vol Thru, %	79%	45%	38%	61%
Vol Right, %	18%	10%	51%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	164	73	108	249
LT Vol	5	33	12	62
Through Vol	130	33	41	152
RT Vol	29	7	55	35
Lane Flow Rate	164	73	108	249
Geometry Grp	1	1	1	1
Degree of Util (X)	0.208	0.102	0.141	0.313
Departure Headway (Hd)	4.557	5.049	4.691	4.527
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	786	707	761	792
Service Time	2.598	3.102	2.739	2.564
HCM Lane V/C Ratio	0.209	0.103	0.142	0.314
HCM Control Delay	8.8	8.7	8.5	9.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	0.3	0.5	1.3

Intersection	
Intersection Delay, s/veh	38.5
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	104	27	49	84	51	188	29	260	46	56	411	67
Future Vol, veh/h	104	27	49	84	51	188	29	260	46	56	411	67
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	104	27	49	84	51	188	29	260	46	56	411	67
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	16.6	22.9	24.3	64.2
HCM LOS	C	C	C	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	58%	26%	10%
Vol Thru, %	78%	15%	16%	77%
Vol Right, %	14%	27%	58%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	335	180	323	534
LT Vol	29	104	84	56
Through Vol	260	27	51	411
RT Vol	46	49	188	67
Lane Flow Rate	335	180	323	534
Geometry Grp	1	1	1	1
Degree of Util (X)	0.678	0.406	0.648	0.996
Departure Headway (Hd)	7.291	8.113	7.34	6.712
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	499	445	494	534
Service Time	5.291	6.132	5.34	4.811
HCM Lane V/C Ratio	0.671	0.404	0.654	1
HCM Control Delay	24.3	16.6	22.9	64.2
HCM Lane LOS	C	C	C	F
HCM 95th-tile Q	5	1.9	4.6	13.9

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	18	75	5	20	1	92	1	2	0	0	0
Future Vol, veh/h	1	18	75	5	20	1	92	1	2	0	0	0
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	18	75	5	20	1	92	1	2	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	21	0	0	94	0	0	90	90	57	90	127	21
Stage 1	-	-	-	-	-	-	59	59	-	31	31	-
Stage 2	-	-	-	-	-	-	31	31	-	59	96	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1595	-	-	1500	-	-	895	800	1009	895	764	1056
Stage 1	-	-	-	-	-	-	953	846	-	986	869	-
Stage 2	-	-	-	-	-	-	986	869	-	953	815	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1595	-	-	1499	-	-	891	796	1008	890	760	1056
Mov Cap-2 Maneuver	-	-	-	-	-	-	891	796	-	890	760	-
Stage 1	-	-	-	-	-	-	951	844	-	985	866	-
Stage 2	-	-	-	-	-	-	983	866	-	949	813	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.4	9.5	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	892	1595	-	-	1499	-	-	-
HCM Lane V/C Ratio	0.107	0.001	-	-	0.003	-	-	-
HCM Control Delay (s)	9.5	7.3	0	-	7.4	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	47	24	21	973	841	62
Future Vol, veh/h	47	24	21	973	841	62
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	24	21	973	841	62

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1859	844	906	0	-	0
Stage 1	844	-	-	-	-	-
Stage 2	1015	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	81	363	751	-	-	-
Stage 1	422	-	-	-	-	-
Stage 2	350	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	76	362	749	-	-	-
Mov Cap-2 Maneuver	258	-	-	-	-	-
Stage 1	395	-	-	-	-	-
Stage 2	349	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21.7	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	749	-	286	-	-
HCM Lane V/C Ratio	0.028	-	0.248	-	-
HCM Control Delay (s)	9.9	0	21.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	536	41	453	624	0	721
Future Volume (veh/h)	536	41	453	624	0	721
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	536	41	453	0	0	721
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	614	47	1263	0	0	1263
Arrive On Green	0.38	0.38	0.36	0.00	0.00	0.36
Sat Flow, veh/h	1631	125	3725	0	0	3725
Grp Volume(v), veh/h	578	0	453	0	0	721
Grp Sat Flow(s),veh/h/ln	1759	0	1770	0	0	1770
Q Serve(g_s), s	8.6	0.0	2.7	0.0	0.0	4.6
Cycle Q Clear(g_c), s	8.6	0.0	2.7	0.0	0.0	4.6
Prop In Lane	0.93	0.07		0.00	0.00	
Lane Grp Cap(c), veh/h	662	0	1263	0	0	1263
V/C Ratio(X)	0.87	0.00	0.36	0.00	0.00	0.57
Avail Cap(c_a), veh/h	1002	0	2079	0	0	2079
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	8.1	0.0	6.7	0.0	0.0	7.3
Incr Delay (d2), s/veh	3.9	0.0	0.2	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	1.3	0.0	0.0	2.3
LnGrp Delay(d),s/veh	12.0	0.0	6.9	0.0	0.0	7.8
LnGrp LOS	B		A			A
Approach Vol, veh/h	578		453			721
Approach Delay, s/veh	12.0		6.9			7.8
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		14.5		13.6		14.5		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		16.5		16.0		16.5		
Max Q Clear Time (g_c+I1), s		4.7		10.6		6.6		
Green Ext Time (p_c), s		2.7		0.1		3.4		

Intersection Summary	
HCM 2010 Ctrl Delay	9.0
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	435	386	20	578	118	223	213	17	79	368	88
Future Volume (veh/h)	65	435	386	20	578	118	223	213	17	79	368	88
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.91	1.00		0.97	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	65	435	386	20	578	118	223	213	17	79	368	88
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	127	740	932	50	960	193	249	238	411	89	413	417
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	232	2093	1433	46	2714	546	929	887	1532	326	1520	1532
Grp Volume(v), veh/h	161	339	386	384	0	332	436	0	17	447	0	88
Grp Sat Flow(s),veh/h/ln	714	1610	1433	1771	0	1534	1816	0	1532	1846	0	1532
Q Serve(g_s), s	9.5	19.5	15.8	0.1	0.0	20.2	26.1	0.0	0.9	26.3	0.0	5.0
Cycle Q Clear(g_c), s	29.7	19.5	15.8	19.5	0.0	20.2	26.1	0.0	0.9	26.3	0.0	5.0
Prop In Lane	0.40		1.00	0.05		0.36	0.51		1.00	0.18		1.00
Lane Grp Cap(c), veh/h	297	570	932	660	0	543	487	0	411	502	0	417
V/C Ratio(X)	0.54	0.59	0.41	0.58	0.00	0.61	0.89	0.00	0.04	0.89	0.00	0.21
Avail Cap(c_a), veh/h	297	570	932	660	0	543	626	0	528	637	0	529
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.3	29.9	11.1	29.7	0.0	30.1	39.8	0.0	30.6	39.5	0.0	31.8
Incr Delay (d2), s/veh	6.9	4.5	1.4	3.7	0.0	5.1	12.9	0.0	0.0	12.4	0.0	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	5.1	9.4	11.0	10.4	0.0	9.2	14.8	0.0	0.4	15.1	0.0	2.2
LnGrp Delay(d),s/veh	42.2	34.4	12.4	33.5	0.0	35.2	52.8	0.0	30.7	52.0	0.0	32.1
LnGrp LOS	D	C	B	C		D	D		C	D		C
Approach Vol, veh/h		886			716			453			535	
Approach Delay, s/veh		26.2			34.3			51.9			48.7	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		44.0		34.3		44.0		34.7
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		40.0		39.0		40.0		39.0
Max Q Clear Time (g_c+I1), s		31.7		28.1		22.2		28.3
Green Ext Time (p_c), s		3.2		2.2		4.5		2.4

Intersection Summary	
HCM 2010 Ctrl Delay	37.6
HCM 2010 LOS	D

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	324	288	502	393	426	399
Future Volume (veh/h)	324	288	502	393	426	399
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	324	288	502	393	426	399
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	350	1254	830	684	465	728
Arrive On Green	0.20	0.67	0.45	0.45	0.26	0.26
Sat Flow, veh/h	1774	1863	1863	1536	1774	1583
Grp Volume(v), veh/h	324	288	502	393	426	399
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1536	1774	1583
Q Serve(g_s), s	23.4	7.8	26.7	24.9	30.4	23.7
Cycle Q Clear(g_c), s	23.4	7.8	26.7	24.9	30.4	23.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	350	1254	830	684	465	728
V/C Ratio(X)	0.93	0.23	0.61	0.57	0.92	0.55
Avail Cap(c_a), veh/h	463	1254	830	684	596	844
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	51.4	8.2	27.5	27.0	46.7	25.5
Incr Delay (d2), s/veh	18.5	0.4	3.3	3.5	15.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.2	4.1	14.4	11.1	16.9	22.3
LnGrp Delay(d),s/veh	69.9	8.7	30.7	30.4	62.2	25.9
LnGrp LOS	E	A	C	C	E	C
Approach Vol, veh/h		612	895		825	
Approach Delay, s/veh		41.1	30.6		44.7	
Approach LOS		D	C		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		92.0		38.4	29.7	62.3		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 88		* 44	34.0	* 50		
Max Q Clear Time (g_c+I1), s		9.8		32.4	25.4	28.7		
Green Ext Time (p_c), s		1.2		1.8	0.3	2.9		

Intersection Summary	
HCM 2010 Ctrl Delay	38.3
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	50	10	86	19	147	2	681	108	194	841	54
Future Volume (veh/h)	78	50	10	86	19	147	2	681	108	194	841	54
Number	7	4	14	3	8	18	1	6	16	5	2	12
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		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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	78	50	10	86	19	147	2	681	108	194	841	54
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	120	70	12	217	43	1000	26	805	127	808	2547	164
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.27	0.27	0.27	0.46	0.75	0.75
Sat Flow, veh/h	442	387	65	944	241	1553	2	2984	472	1774	3377	217
Grp Volume(v), veh/h	138	0	0	105	0	147	425	0	366	194	441	454
Grp Sat Flow(s),veh/h/ln	894	0	0	1186	0	1553	1860	0	1598	1774	1770	1824
Q Serve(g_s), s	11.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.4	9.4	11.4	11.4
Cycle Q Clear(g_c), s	22.7	0.0	0.0	11.3	0.0	0.0	30.2	0.0	30.4	9.4	11.4	11.4
Prop In Lane	0.57		0.07	0.82		1.00	0.00		0.30	1.00		0.12
Lane Grp Cap(c), veh/h	201	0	0	260	0	1000	527	0	431	808	1335	1376
V/C Ratio(X)	0.69	0.00	0.00	0.40	0.00	0.15	0.81	0.00	0.85	0.24	0.33	0.33
Avail Cap(c_a), veh/h	284	0	0	343	0	1091	846	0	707	808	1335	1376
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	0.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	59.5	0.0	0.0	51.6	0.0	10.3	48.4	0.0	48.4	23.3	5.6	5.6
Incr Delay (d2), s/veh	3.1	0.0	0.0	0.7	0.0	0.0	12.4	0.0	18.5	0.0	0.5	0.5
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	5.4	0.0	0.0	3.7	0.0	2.3	17.4	0.0	15.6	4.6	5.7	5.9
LnGrp Delay(d),s/veh	62.6	0.0	0.0	52.3	0.0	10.3	60.8	0.0	66.9	23.4	6.1	6.1
LnGrp LOS	E			D		B	E		E	C	A	A
Approach Vol, veh/h		138			252			791			1089	
Approach Delay, s/veh		62.6			27.8			63.6			9.2	
Approach LOS		E			C			E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		110.2		29.8	68.3	41.9		29.8
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		97.4		33.4	31.9	* 62		33.4
Max Q Clear Time (g_c+I1), s		13.4		24.7	11.4	32.4		13.3
Green Ext Time (p_c), s		7.2		0.4	0.2	5.4		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	33.5
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	696	956	1444	337	314	678
Future Volume (veh/h)	696	956	1444	337	314	678
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	696	956	1444	337	314	678
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	782	3385	1557	362	388	1242
Arrive On Green	0.23	0.67	0.38	0.38	0.22	0.22
Sat Flow, veh/h	3442	5253	4260	951	1774	2787
Grp Volume(v), veh/h	696	956	1195	586	314	678
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1652	1774	1393
Q Serve(g_s), s	13.5	5.3	23.3	23.5	11.6	12.3
Cycle Q Clear(g_c), s	13.5	5.3	23.3	23.5	11.6	12.3
Prop In Lane	1.00			0.58	1.00	1.00
Lane Grp Cap(c), veh/h	782	3385	1290	629	388	1242
V/C Ratio(X)	0.89	0.28	0.93	0.93	0.81	0.55
Avail Cap(c_a), veh/h	797	3385	1290	629	411	1278
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	25.9	4.8	20.5	20.5	25.6	14.0
Incr Delay (d2), s/veh	12.0	0.2	12.7	22.5	11.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	2.5	13.1	14.5	6.9	4.7
LnGrp Delay(d),s/veh	37.9	5.0	33.2	43.0	36.7	14.5
LnGrp LOS	D	A	C	D	D	B
Approach Vol, veh/h		1652	1781		992	
Approach Delay, s/veh		18.8	36.4		21.5	
Approach LOS		B	D		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	19.7	30.3				50.0		19.1
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	26.0				46.0		16.0
Max Q Clear Time (g_c+I1), s	15.5	25.5				7.3		14.3
Green Ext Time (p_c), s	0.2	0.4				7.9		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	475	15	130	138	58	102	185	720	84	30	697	377
Future Volume (veh/h)	475	15	130	138	58	102	185	720	84	30	697	377
Number	3	8	18	7	4	14	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		0.97	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	486	0	130	138	58	102	185	720	84	30	697	377
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	609	0	270	231	78	138	124	1797	989	40	1630	982
Arrive On Green	0.17	0.00	0.17	0.13	0.13	0.13	0.07	0.51	0.51	0.02	0.46	0.46
Sat Flow, veh/h	3548	0	1572	1774	603	1061	1774	3539	1543	1774	3539	1542
Grp Volume(v), veh/h	486	0	130	138	0	160	185	720	84	30	697	377
Grp Sat Flow(s),veh/h/ln	1774	0	1572	1774	0	1664	1774	1770	1543	1774	1770	1542
Q Serve(g_s), s	13.1	0.0	7.5	7.3	0.0	9.3	7.0	12.6	2.1	1.7	13.2	11.9
Cycle Q Clear(g_c), s	13.1	0.0	7.5	7.3	0.0	9.3	7.0	12.6	2.1	1.7	13.2	11.9
Prop In Lane	1.00		1.00	1.00		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	609	0	270	231	0	216	124	1797	989	40	1630	982
V/C Ratio(X)	0.80	0.00	0.48	0.60	0.00	0.74	1.49	0.40	0.08	0.75	0.43	0.38
Avail Cap(c_a), veh/h	958	0	425	479	0	449	124	1797	989	71	1630	982
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	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	0.0	37.4	41.0	0.0	41.9	46.5	15.2	6.9	48.6	18.1	9.0
Incr Delay (d2), s/veh	2.0	0.0	1.0	1.8	0.0	3.7	255.9	0.6	0.2	9.8	0.8	1.1
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	6.6	0.0	3.3	3.7	0.0	4.5	12.2	6.3	1.3	0.9	6.6	7.7
LnGrp Delay(d),s/veh	41.7	0.0	38.4	42.9	0.0	45.5	302.4	15.8	7.1	58.4	18.9	10.1
LnGrp LOS	D		D	D		D	F	B	A	E	B	B
Approach Vol, veh/h		616			298			989			1104	
Approach Delay, s/veh		41.0			44.3			68.7			17.0	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.3	55.4		17.2	11.0	50.6		21.2
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.0	4.6		4.0
Max Green Setting (Gmax), s	4.0	25.2		* 27	7.0	22.2		27.0
Max Q Clear Time (g_c+I1), s	3.7	14.6		11.3	9.0	15.2		15.1
Green Ext Time (p_c), s	0.0	5.9		0.9	0.0	4.9		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	41.6
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	358	126	193	309	23	74	161	242	42	144	26
Future Volume (veh/h)	43	358	126	193	309	23	74	161	242	42	144	26
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		0.97	1.00		0.97	0.99		0.96	0.99		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	1863	1863	1863	1900	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	43	358	126	193	309	23	74	161	242	42	144	26
Adj No. of Lanes	1	1	1	1	1	0	0	1	1	0	1	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	535	439	253	669	50	220	337	388	158	312	50
Arrive On Green	0.04	0.29	0.29	0.14	0.39	0.39	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1774	1863	1528	1774	1708	127	376	1323	1522	175	1223	195
Grp Volume(v), veh/h	43	358	126	193	0	332	235	0	242	212	0	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1528	1774	0	1835	1699	0	1522	1594	0	0
Q Serve(g_s), s	0.9	6.5	2.4	4.0	0.0	5.1	0.0	0.0	5.4	0.1	0.0	0.0
Cycle Q Clear(g_c), s	0.9	6.5	2.4	4.0	0.0	5.1	4.1	0.0	5.4	4.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.07	0.31		1.00	0.20		0.12
Lane Grp Cap(c), veh/h	68	535	439	253	0	719	558	0	388	520	0	0
V/C Ratio(X)	0.63	0.67	0.29	0.76	0.00	0.46	0.42	0.00	0.62	0.41	0.00	0.00
Avail Cap(c_a), veh/h	233	929	762	559	0	1253	861	0	679	814	0	0
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.0	12.0	10.5	15.7	0.0	8.6	12.1	0.0	12.6	12.0	0.0	0.0
Incr Delay (d2), s/veh	9.3	1.5	0.4	4.7	0.0	0.5	0.5	0.0	1.6	0.5	0.0	0.0
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	0.6	3.5	1.1	2.3	0.0	2.7	2.2	0.0	2.4	2.0	0.0	0.0
LnGrp Delay(d),s/veh	27.3	13.4	10.9	20.4	0.0	9.1	12.6	0.0	14.2	12.5	0.0	0.0
LnGrp LOS	C	B	B	C		A	B		B	B		
Approach Vol, veh/h		527			525			477			212	
Approach Delay, s/veh		14.0			13.2			13.4			12.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.7	9.4	14.9		13.7	5.5	18.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		17.0	12.0	19.0		17.0	5.0	26.0
Max Q Clear Time (g_c+I1), s		7.4	6.0	8.5		6.2	2.9	7.1
Green Ext Time (p_c), s		1.7	0.3	2.0		0.9	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	13.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	478	56	165	459	232	102	1619	135	156	1831	45
Future Volume (veh/h)	0	478	56	165	459	232	102	1619	135	156	1831	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	10	40	55	12	175	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	0	478	0	165	459	232	102	1619	135	156	1831	0
Adj No. of Lanes	1	2	0	1	1	1	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1	544	0	206	541	450	135	2571	105	251	2033	909
Arrive On Green	0.00	0.15	0.00	0.10	0.28	0.28	0.07	0.52	0.52	0.14	0.59	0.00
Sat Flow, veh/h	1774	3632	0	1774	1863	1548	1774	4779	398	1774	3539	1583
Grp Volume(v), veh/h	0	478	0	165	459	232	102	1148	606	156	1831	0
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1774	1863	1548	1774	1695	1787	1774	1770	1583
Q Serve(g_s), s	0.0	25.2	0.0	17.6	45.1	18.3	10.9	46.7	46.8	15.9	83.7	0.0
Cycle Q Clear(g_c), s	0.0	25.2	0.0	17.6	45.1	18.3	10.9	46.7	46.8	15.9	83.7	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	1	544	0	206	541	450	135	1728	933	251	2033	909
V/C Ratio(X)	0.00	0.88	0.00	0.80	0.85	0.52	0.76	0.66	0.65	0.62	0.90	0.00
Avail Cap(c_a), veh/h	37	704	0	213	556	462	139	1774	935	260	2093	936
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)	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	81.5	0.0	87.0	70.0	38.6	91.1	45.8	44.2	79.5	37.0	0.0
Incr Delay (d2), s/veh	0.0	10.1	0.0	18.8	11.6	0.9	20.3	2.0	3.5	4.3	7.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	85.8	198.0	222.2	210.6	97.7	80.4	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.5	0.0	17.1	61.0	46.1	16.0	66.2	64.6	8.3	45.7	0.0
LnGrp Delay(d),s/veh	0.0	91.6	0.0	191.7	279.6	261.8	322.0	145.5	128.1	83.8	43.9	0.0
LnGrp LOS		F		F	F	F	F	F	F	F	D	
Approach Vol, veh/h		478			856			1856			1987	
Approach Delay, s/veh		91.6			257.8			149.5			47.0	
Approach LOS		F			F			F			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	29.9	104.0	23.7	33.6	16.9	117.0	0.0	57.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	28.0	100.0	23.0	38.0	15.0	113.0	4.0	57.0
Max Q Clear Time (g_c+I1), s	17.9	48.8	19.6	27.2	12.9	85.7	0.0	47.1
Green Ext Time (p_c), s	0.3	20.8	0.1	2.3	0.0	17.9	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	122.7
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	232	519	132	765	540	296	167	1421	796	322	2187	76
Future Volume (veh/h)	232	519	132	765	540	296	167	1421	796	322	2187	76
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		0.96	1.00		0.97	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	232	519	132	765	540	296	167	1421	796	322	2187	76
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	171	421	106	570	411	513	135	1635	985	380	1757	939
Arrive On Green	0.10	0.15	0.15	0.17	0.22	0.22	0.08	0.46	0.46	0.11	0.50	0.50
Sat Flow, veh/h	1774	2774	701	3442	1863	1532	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	232	330	321	765	540	296	167	1421	796	322	2187	76
Grp Sat Flow(s),veh/h/ln	1774	1770	1706	1721	1863	1532	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	14.0	22.0	22.0	24.0	32.0	4.7	11.0	52.3	27.0	13.3	72.0	3.0
Cycle Q Clear(g_c), s	14.0	22.0	22.0	24.0	32.0	4.7	11.0	52.3	27.0	13.3	72.0	3.0
Prop In Lane	1.00		0.41	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	171	268	259	570	411	513	135	1635	985	380	1757	939
V/C Ratio(X)	1.35	1.23	1.24	1.34	1.31	0.58	1.24	0.87	0.81	0.85	1.24	0.08
Avail Cap(c_a), veh/h	171	268	259	570	411	513	135	1635	985	380	1757	939
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	65.5	61.5	61.5	60.5	56.5	23.0	67.0	35.1	7.5	63.3	36.5	12.6
Incr Delay (d2), s/veh	192.7	131.3	136.7	165.8	157.5	1.6	156.2	6.6	7.1	16.3	115.0	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	16.0	20.5	20.2	24.5	34.4	9.4	11.2	27.0	13.2	7.2	63.2	1.3
LnGrp Delay(d),s/veh	258.2	192.8	198.2	226.3	214.0	24.6	223.2	41.6	14.7	79.6	151.5	12.8
LnGrp LOS	F	F	F	F	F	C	F	D	B	E	F	B
Approach Vol, veh/h		883			1601			2384			2585	
Approach Delay, s/veh		211.9			184.9			45.3			138.5	
Approach LOS		F			F			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	20.0	71.0	28.0	26.0	15.0	76.0	18.0	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	67.0	24.0	22.0	11.0	72.0	14.0	32.0
Max Q Clear Time (g_c+I1), s	15.3	54.3	26.0	24.0	13.0	74.0	16.0	34.0
Green Ext Time (p_c), s	0.1	10.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	127.3
HCM 2010 LOS	F

Notes

User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	544	258	2269	0	0	869
Future Volume (veh/h)	544	258	2269	0	0	869
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	544	258	2269	0	0	869
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	707	573	2445	0	0	2445
Arrive On Green	0.21	0.21	0.69	0.00	0.00	0.69
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	544	258	2269	0	0	869
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	11.9	6.5	44.2	0.0	0.0	8.1
Cycle Q Clear(g_c), s	11.9	6.5	44.2	0.0	0.0	8.1
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	707	573	2445	0	0	2445
V/C Ratio(X)	0.77	0.45	0.93	0.00	0.00	0.36
Avail Cap(c_a), veh/h	1076	871	2445	0	0	2445
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.45	0.00	0.00	1.00
Uniform Delay (d), s/veh	30.0	27.8	10.7	0.0	0.0	5.1
Incr Delay (d2), s/veh	1.9	0.6	3.9	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	2.5	22.4	0.0	0.0	4.0
LnGrp Delay(d),s/veh	31.9	28.4	14.5	0.0	0.0	5.5
LnGrp LOS	C	C	B			A
Approach Vol, veh/h	802		2269			869
Approach Delay, s/veh	30.7		14.5			5.5
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		59.4				59.4		20.6
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		46.7				46.7		25.0
Max Q Clear Time (g_c+I1), s		46.2				10.1		13.9
Green Ext Time (p_c), s		0.5				7.4		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	15.8
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1567	401	0	984	944	0
Future Volume (veh/h)	1567	401	0	984	944	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1567	401	0	984	944	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1688	776	0	1441	1441	0
Arrive On Green	0.49	0.49	0.00	0.41	0.81	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1567	401	0	984	944	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	34.1	13.8	0.0	18.3	8.5	0.0
Cycle Q Clear(g_c), s	34.1	13.8	0.0	18.3	8.5	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1688	776	0	1441	1441	0
V/C Ratio(X)	0.93	0.52	0.00	0.68	0.66	0.00
Avail Cap(c_a), veh/h	1846	849	0	1441	1441	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.86	0.00
Uniform Delay (d), s/veh	19.1	13.9	0.0	19.5	5.2	0.0
Incr Delay (d2), s/veh	8.0	0.2	0.0	2.6	2.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.0	6.1	0.0	9.4	4.1	0.0
LnGrp Delay(d),s/veh	27.1	14.1	0.0	22.1	7.2	0.0
LnGrp LOS	C	B		C	A	
Approach Vol, veh/h	1968			984	944	
Approach Delay, s/veh	24.4			22.1	7.2	
Approach LOS	C			C	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		36.7		43.3		36.7		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		28.9		42.9		28.9		
Max Q Clear Time (g_c+I1), s		20.3		36.1		10.5		
Green Ext Time (p_c), s		3.3		3.1		4.5		

Intersection Summary	
HCM 2010 Ctrl Delay	19.7
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	14.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	65	454	70	55	313	25	47	68	67	44	80	31
Future Vol, veh/h	65	454	70	55	313	25	47	68	67	44	80	31
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	65	454	70	55	313	25	47	68	67	44	80	31
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	15.5	13.3	12.9	12.6
HCM LOS	C	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	26%	22%	0%	26%	0%	28%
Vol Thru, %	37%	78%	76%	74%	86%	52%
Vol Right, %	37%	0%	24%	0%	14%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	182	292	297	212	182	155
LT Vol	47	65	0	55	0	44
Through Vol	68	227	227	157	157	80
RT Vol	67	0	70	0	25	31
Lane Flow Rate	182	292	297	212	182	155
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.335	0.519	0.505	0.398	0.33	0.293
Departure Headway (Hd)	6.622	6.517	6.235	6.778	6.547	6.8
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	546	558	582	533	552	530
Service Time	4.634	4.217	3.935	4.489	4.258	4.822
HCM Lane V/C Ratio	0.333	0.523	0.51	0.398	0.33	0.292
HCM Control Delay	12.9	16	15.1	13.9	12.5	12.6
HCM Lane LOS	B	C	C	B	B	B
HCM 95th-tile Q	1.5	3	2.8	1.9	1.4	1.2

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	108	863	18	20	679	55	5	2	17	35	0	88
Future Vol, veh/h	108	863	18	20	679	55	5	2	17	35	0	88
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	108	863	18	20	679	55	5	2	17	35	0	88

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	765	0	0	897	0	0	1484	1909	482	1452	1891	398
Stage 1	-	-	-	-	-	-	1104	1104	-	778	778	-
Stage 2	-	-	-	-	-	-	380	805	-	674	1113	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	844	-	-	753	-	-	87	68	530	92	69	601
Stage 1	-	-	-	-	-	-	225	285	-	355	405	-
Stage 2	-	-	-	-	-	-	614	393	-	410	282	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	822	-	-	743	-	-	56	46	512	64	47	585
Mov Cap-2 Maneuver	-	-	-	-	-	-	56	46	-	64	47	-
Stage 1	-	-	-	-	-	-	165	209	-	257	376	-
Stage 2	-	-	-	-	-	-	498	365	-	285	206	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2	0.4	34.7	62.7
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	145	822	-	-	743	-	-	176
HCM Lane V/C Ratio	0.166	0.131	-	-	0.027	-	-	0.699
HCM Control Delay (s)	34.7	10	1	-	10	0.2	-	62.7
HCM Lane LOS	D	B	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.6	0.5	-	-	0.1	-	-	4.2

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	82	13	9	101	2	16	2	16	5	0	1
Future Vol, veh/h	1	82	13	9	101	2	16	2	16	5	0	1
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	82	13	9	101	2	16	2	16	5	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	107	0	0	96	0	0	214	217	91	225	222	107
Stage 1	-	-	-	-	-	-	92	92	-	124	124	-
Stage 2	-	-	-	-	-	-	122	125	-	101	98	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1484	-	-	1498	-	-	743	681	967	730	677	947
Stage 1	-	-	-	-	-	-	915	819	-	880	793	-
Stage 2	-	-	-	-	-	-	882	792	-	905	814	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1479	-	-	1497	-	-	737	674	965	710	670	943
Mov Cap-2 Maneuver	-	-	-	-	-	-	737	674	-	710	670	-
Stage 1	-	-	-	-	-	-	913	817	-	876	786	-
Stage 2	-	-	-	-	-	-	875	785	-	886	812	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.6	9.6	9.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	824	1479	-	-	1497	-	-	740
HCM Lane V/C Ratio	0.041	0.001	-	-	0.006	-	-	0.008
HCM Control Delay (s)	9.6	7.4	0	-	7.4	0	-	9.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	44	7	11	64	11	19	16	21	6	37	8
Future Vol, veh/h	8	44	7	11	64	11	19	16	21	6	37	8
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	44	7	11	64	11	19	16	21	6	37	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	77	0	0	53	0	0	181	165	51	177	163	73
Stage 1	-	-	-	-	-	-	66	66	-	94	94	-
Stage 2	-	-	-	-	-	-	115	99	-	83	69	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1522	-	-	1553	-	-	781	728	1017	785	729	989
Stage 1	-	-	-	-	-	-	945	840	-	913	817	-
Stage 2	-	-	-	-	-	-	890	813	-	925	837	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1519	-	-	1550	-	-	736	716	1014	747	717	987
Mov Cap-2 Maneuver	-	-	-	-	-	-	736	716	-	747	717	-
Stage 1	-	-	-	-	-	-	938	834	-	907	810	-
Stage 2	-	-	-	-	-	-	836	806	-	883	831	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.9	9.8	10.1
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	813	1519	-	-	1550	-	-	753
HCM Lane V/C Ratio	0.069	0.005	-	-	0.007	-	-	0.068
HCM Control Delay (s)	9.8	7.4	0	-	7.3	0	-	10.1
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	51	2	15	61	2	8	13	15	1	4	6
Future Vol, veh/h	1	51	2	15	61	2	8	13	15	1	4	6
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	51	2	15	61	2	8	13	15	1	4	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	64	0	0	53	0	0	152	148	54	163	148	64
Stage 1	-	-	-	-	-	-	54	54	-	93	93	-
Stage 2	-	-	-	-	-	-	98	94	-	70	55	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1538	-	-	1553	-	-	815	743	1013	802	743	1000
Stage 1	-	-	-	-	-	-	958	850	-	914	818	-
Stage 2	-	-	-	-	-	-	908	817	-	940	849	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1537	-	-	1553	-	-	800	734	1011	771	734	998
Mov Cap-2 Maneuver	-	-	-	-	-	-	800	734	-	771	734	-
Stage 1	-	-	-	-	-	-	957	849	-	912	809	-
Stage 2	-	-	-	-	-	-	888	808	-	909	848	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.4	9.4	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	846	1537	-	-	1553	-	-	862
HCM Lane V/C Ratio	0.043	0.001	-	-	0.01	-	-	0.013
HCM Control Delay (s)	9.4	7.3	0	-	7.3	0	-	9.2
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	65	0	21	49	3	54
Future Vol, veh/h	65	0	21	49	3	54
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	65	0	21	49	3	54

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	68	0	160	68
Stage 1	-	-	-	-	68	-
Stage 2	-	-	-	-	92	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1533	-	831	995
Stage 1	-	-	-	-	955	-
Stage 2	-	-	-	-	932	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1529	-	817	993
Mov Cap-2 Maneuver	-	-	-	-	817	-
Stage 1	-	-	-	-	953	-
Stage 2	-	-	-	-	918	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	982	-	-	1529	-
HCM Lane V/C Ratio	0.058	-	-	0.014	-
HCM Control Delay (s)	8.9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	41	55	8	5	73	5	2	4	3	2	3	41
Future Vol, veh/h	41	55	8	5	73	5	2	4	3	2	3	41
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	41	55	8	5	73	5	2	4	3	2	3	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	80	0	0	64	0	0	251	232	60	233	234	79
Stage 1	-	-	-	-	-	-	142	142	-	88	88	-
Stage 2	-	-	-	-	-	-	109	90	-	145	146	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1518	-	-	1538	-	-	702	668	1005	722	666	981
Stage 1	-	-	-	-	-	-	861	779	-	920	822	-
Stage 2	-	-	-	-	-	-	896	820	-	858	776	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1515	-	-	1537	-	-	654	645	1004	698	643	979
Mov Cap-2 Maneuver	-	-	-	-	-	-	654	645	-	698	643	-
Stage 1	-	-	-	-	-	-	836	756	-	892	818	-
Stage 2	-	-	-	-	-	-	852	816	-	827	753	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.9	0.4	10	9.1
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	735	1515	-	-	1537	-	-	931
HCM Lane V/C Ratio	0.012	0.027	-	-	0.003	-	-	0.049
HCM Control Delay (s)	10	7.4	0	-	7.3	0	-	9.1
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.2

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	21	7	23	44	56	6	136	18	93	215	54
Future Vol, veh/h	36	21	7	23	44	56	6	136	18	93	215	54
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	21	7	23	44	56	6	136	18	93	215	54
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	9.1	9.1	11.4
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	56%	19%	26%
Vol Thru, %	85%	33%	36%	59%
Vol Right, %	11%	11%	46%	15%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	160	64	123	362
LT Vol	6	36	23	93
Through Vol	136	21	44	215
RT Vol	18	7	56	54
Lane Flow Rate	160	64	123	362
Geometry Grp	1	1	1	1
Degree of Util (X)	0.212	0.095	0.17	0.458
Departure Headway (Hd)	4.763	5.357	4.987	4.558
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	749	663	713	786
Service Time	2.823	3.435	3.058	2.608
HCM Lane V/C Ratio	0.214	0.097	0.173	0.461
HCM Control Delay	9.1	9	9.1	11.4
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.8	0.3	0.6	2.4

Intersection	
Intersection Delay, s/veh	45.5
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	102	54	37	32	36	112	19	306	67	104	413	105
Future Vol, veh/h	102	54	37	32	36	112	19	306	67	104	413	105
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	102	54	37	32	36	112	19	306	67	104	413	105
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	15.6	14.4	22.9	78
HCM LOS	C	B	C	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	53%	18%	17%
Vol Thru, %	78%	28%	20%	66%
Vol Right, %	17%	19%	62%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	392	193	180	622
LT Vol	19	102	32	104
Through Vol	306	54	36	413
RT Vol	67	37	112	105
Lane Flow Rate	392	193	180	622
Geometry Grp	1	1	1	1
Degree of Util (X)	0.689	0.394	0.355	1.059
Departure Headway (Hd)	6.581	7.662	7.412	6.128
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	553	473	488	597
Service Time	4.581	5.662	5.412	4.128
HCM Lane V/C Ratio	0.709	0.408	0.369	1.042
HCM Control Delay	22.9	15.6	14.4	78
HCM Lane LOS	C	C	B	F
HCM 95th-tile Q	5.3	1.9	1.6	17.6

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	13	97	1	13	0	148	3	5	0	0	0
Future Vol, veh/h	2	13	97	1	13	0	148	3	5	0	0	0
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	13	97	1	13	0	148	3	5	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	13	0	0	111	0	0	82	82	63	85	130	13
Stage 1	-	-	-	-	-	-	67	67	-	15	15	-
Stage 2	-	-	-	-	-	-	15	15	-	70	115	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1606	-	-	1479	-	-	905	808	1002	901	761	1067
Stage 1	-	-	-	-	-	-	943	839	-	1005	883	-
Stage 2	-	-	-	-	-	-	1005	883	-	940	800	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1606	-	-	1478	-	-	903	806	1001	893	759	1067
Mov Cap-2 Maneuver	-	-	-	-	-	-	903	806	-	893	759	-
Stage 1	-	-	-	-	-	-	941	837	-	1004	882	-
Stage 2	-	-	-	-	-	-	1004	882	-	931	798	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.5	9.8	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	904	1606	-	-	1478	-	-	-
HCM Lane V/C Ratio	0.173	0.001	-	-	0.001	-	-	-
HCM Control Delay (s)	9.8	7.2	0	-	7.4	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.6	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	53	26	12	872	758	151
Future Vol, veh/h	53	26	12	872	758	151
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	53	26	12	872	758	151

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1657	761	912	0	-	0
Stage 1	761	-	-	-	-	-
Stage 2	896	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	108	405	747	-	-	-
Stage 1	461	-	-	-	-	-
Stage 2	399	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	104	404	745	-	-	-
Mov Cap-2 Maneuver	298	-	-	-	-	-
Stage 1	446	-	-	-	-	-
Stage 2	398	-	-	-	-	-

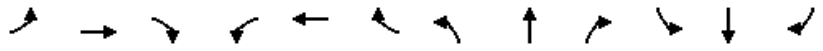
Approach	EB	NB	SB
HCM Control Delay, s	19.5	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	745	-	326	-	-
HCM Lane V/C Ratio	0.016	-	0.242	-	-
HCM Control Delay (s)	9.9	0	19.5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.9	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	654	18	409	499	0	1009
Future Volume (veh/h)	654	18	409	499	0	1009
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	654	18	409	0	0	1009
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	715	20	1333	0	0	1333
Arrive On Green	0.42	0.42	0.38	0.00	0.00	0.38
Sat Flow, veh/h	1719	47	3725	0	0	3725
Grp Volume(v), veh/h	673	0	409	0	0	1009
Grp Sat Flow(s),veh/h/ln	1768	0	1770	0	0	1770
Q Serve(g_s), s	13.0	0.0	2.9	0.0	0.0	9.0
Cycle Q Clear(g_c), s	13.0	0.0	2.9	0.0	0.0	9.0
Prop In Lane	0.97	0.03		0.00	0.00	
Lane Grp Cap(c), veh/h	735	0	1333	0	0	1333
V/C Ratio(X)	0.92	0.00	0.31	0.00	0.00	0.76
Avail Cap(c_a), veh/h	832	0	1518	0	0	1518
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	10.0	0.0	7.9	0.0	0.0	9.8
Incr Delay (d2), s/veh	12.8	0.0	0.2	0.0	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	0.0	1.4	0.0	0.0	4.7
LnGrp Delay(d),s/veh	22.8	0.0	8.1	0.0	0.0	11.9
LnGrp LOS	C		A			B
Approach Vol, veh/h	673		409			1009
Approach Delay, s/veh	22.8		8.1			11.9
Approach LOS	C		A			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		18.1		18.0		18.1		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		15.5		17.0		15.5		
Max Q Clear Time (g_c+I1), s		4.9		15.0		11.0		
Green Ext Time (p_c), s		2.2		0.1		2.6		

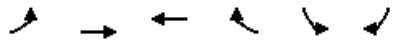
Intersection Summary	
HCM 2010 Ctrl Delay	14.7
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	379	529	33	482	136	166	288	23	76	410	19
Future Volume (veh/h)	42	379	529	33	482	136	166	288	23	76	410	19
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.90	1.00		0.97	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	42	379	529	33	482	136	166	288	23	76	410	19
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	752	897	63	743	212	186	322	425	85	457	450
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.28	0.28	0.28	0.29	0.29	0.29
Sat Flow, veh/h	169	2335	1421	87	2308	659	669	1160	1533	289	1559	1535
Grp Volume(v), veh/h	154	267	529	343	0	308	454	0	23	486	0	19
Grp Sat Flow(s),veh/h/ln	894	1610	1421	1559	0	1494	1829	0	1533	1848	0	1535
Q Serve(g_s), s	4.0	15.1	26.6	6.2	0.0	19.7	26.7	0.0	1.2	28.2	0.0	1.0
Cycle Q Clear(g_c), s	23.7	15.1	26.6	21.3	0.0	19.7	26.7	0.0	1.2	28.2	0.0	1.0
Prop In Lane	0.27		1.00	0.10		0.44	0.37		1.00	0.16		1.00
Lane Grp Cap(c), veh/h	329	518	897	537	0	481	508	0	425	542	0	450
V/C Ratio(X)	0.47	0.52	0.59	0.64	0.00	0.64	0.89	0.00	0.05	0.90	0.00	0.04
Avail Cap(c_a), veh/h	329	518	897	537	0	481	654	0	548	694	0	576
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.6	30.8	14.3	32.2	0.0	32.4	38.8	0.0	29.6	37.9	0.0	28.3
Incr Delay (d2), s/veh	4.7	3.6	2.8	5.7	0.0	6.4	12.4	0.0	0.1	12.1	0.0	0.0
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	4.7	7.2	16.9	10.0	0.0	9.0	15.2	0.0	0.5	16.1	0.0	0.4
LnGrp Delay(d),s/veh	36.3	34.5	17.1	37.9	0.0	38.8	51.2	0.0	29.7	50.0	0.0	28.3
LnGrp LOS	D	C	B	D		D	D		C	D		C
Approach Vol, veh/h		950			651			477			505	
Approach Delay, s/veh		25.1			38.3			50.2			49.2	
Approach LOS		C			D			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		40.0		35.0		40.0		36.8
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		36.0		40.0		36.0		42.0
Max Q Clear Time (g_c+I1), s		28.6		28.7		23.3		30.2
Green Ext Time (p_c), s		3.0		2.4		3.6		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	37.8
HCM 2010 LOS	D



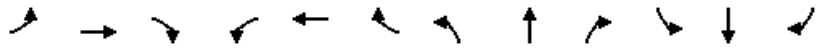
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	374	391	225	458	512	310
Future Volume (veh/h)	374	391	225	458	512	310
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	374	391	225	458	512	310
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	407	1165	681	1052	551	855
Arrive On Green	0.23	0.63	0.37	0.37	0.31	0.31
Sat Flow, veh/h	1774	1863	1863	1533	1774	1583
Grp Volume(v), veh/h	374	391	225	458	512	310
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1533	1774	1583
Q Serve(g_s), s	26.9	13.0	11.4	18.1	36.6	14.7
Cycle Q Clear(g_c), s	26.9	13.0	11.4	18.1	36.6	14.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	407	1165	681	1052	551	855
V/C Ratio(X)	0.92	0.34	0.33	0.44	0.93	0.36
Avail Cap(c_a), veh/h	610	1165	681	1052	811	1087
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	49.2	11.6	30.0	9.8	43.7	17.2
Incr Delay (d2), s/veh	14.3	0.8	1.3	1.3	11.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.8	6.9	6.1	15.4	19.7	16.4
LnGrp Delay(d),s/veh	63.5	12.4	31.3	11.1	55.6	17.4
LnGrp LOS	E	B	C	B	E	B
Approach Vol, veh/h		765	683		822	
Approach Delay, s/veh		37.4	17.7		41.2	
Approach LOS		D	B		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		86.0		44.8	34.0	52.0		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 82		* 60	45.0	* 33		
Max Q Clear Time (g_c+I1), s		15.0		38.6	28.9	20.1		
Green Ext Time (p_c), s		1.6		2.0	1.0	1.6		

Intersection Summary	
HCM 2010 Ctrl Delay	32.9
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



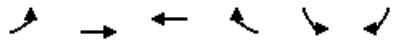
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	197	132	12	45	19	173	1	807	82	289	941	35
Future Volume (veh/h)	197	132	12	45	19	173	1	807	82	289	941	35
Number	7	4	14	3	8	18	1	6	16	5	2	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	197	132	12	45	19	173	1	807	82	289	941	35
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	281	156	13	327	125	851	45	924	94	440	2056	76
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.25	0.59	0.59
Sat Flow, veh/h	715	530	45	851	426	1558	1	3168	322	1774	3480	129
Grp Volume(v), veh/h	341	0	0	64	0	173	475	0	415	289	479	497
Grp Sat Flow(s),veh/h/ln	1290	0	0	1278	0	1558	1862	0	1629	1774	1770	1840
Q Serve(g_s), s	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.4	11.7	12.1	12.1
Cycle Q Clear(g_c), s	20.6	0.0	0.0	2.6	0.0	0.0	19.4	0.0	19.4	11.7	12.1	12.1
Prop In Lane	0.58		0.04	0.70		1.00	0.00		0.20	1.00		0.07
Lane Grp Cap(c), veh/h	450	0	0	453	0	851	588	0	475	440	1045	1087
V/C Ratio(X)	0.76	0.00	0.00	0.14	0.00	0.20	0.81	0.00	0.87	0.66	0.46	0.46
Avail Cap(c_a), veh/h	511	0	0	512	0	918	634	0	515	440	1045	1087
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	0.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	28.0	0.0	0.0	20.8	0.0	9.4	26.9	0.0	26.9	27.0	9.2	9.2
Incr Delay (d2), s/veh	5.3	0.0	0.0	0.1	0.0	0.1	11.3	0.0	19.6	2.4	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	7.9	0.0	0.0	1.1	0.0	1.9	11.7	0.0	11.2	6.0	6.2	6.4
LnGrp Delay(d),s/veh	33.2	0.0	0.0	20.9	0.0	9.5	38.2	0.0	46.5	29.4	10.4	10.3
LnGrp LOS	C			C		A	D		D	C	B	B
Approach Vol, veh/h		341			237			890			1265	
Approach Delay, s/veh		33.2			12.6			42.1			14.7	
Approach LOS		C			B			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		51.9		28.1	24.4	27.4		28.1
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		43.8		27.0	14.9	* 25		27.0
Max Q Clear Time (g_c+I1), s		14.1		22.6	13.7	21.4		4.6
Green Ext Time (p_c), s		7.4		0.8	0.1	1.9		0.7

Intersection Summary		
HCM 2010 Ctrl Delay		25.7
HCM 2010 LOS		C

Notes

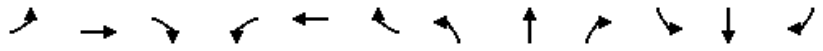
* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	578	1704	1000	292	570	846
Future Volume (veh/h)	578	1704	1000	292	570	846
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	578	1704	1000	292	570	846
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	654	2735	1148	335	638	1532
Arrive On Green	0.19	0.54	0.30	0.30	0.36	0.36
Sat Flow, veh/h	3442	5253	4036	1128	1774	2787
Grp Volume(v), veh/h	578	1704	876	416	570	846
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1606	1774	1393
Q Serve(g_s), s	12.8	18.2	19.1	19.2	23.7	15.3
Cycle Q Clear(g_c), s	12.8	18.2	19.1	19.2	23.7	15.3
Prop In Lane	1.00			0.70	1.00	1.00
Lane Grp Cap(c), veh/h	654	2735	1006	477	638	1532
V/C Ratio(X)	0.88	0.62	0.87	0.87	0.89	0.55
Avail Cap(c_a), veh/h	661	2735	1006	477	682	1600
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	30.8	12.5	26.0	26.1	23.6	11.4
Incr Delay (d2), s/veh	13.4	1.1	10.3	19.3	13.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	8.6	10.3	11.0	14.0	5.9
LnGrp Delay(d),s/veh	44.2	13.6	36.3	45.4	37.3	11.7
LnGrp LOS	D	B	D	D	D	B
Approach Vol, veh/h		2282	1292		1416	
Approach Delay, s/veh		21.4	39.2		22.0	
Approach LOS		C	D		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	18.8	27.2				46.0		32.1
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	15.0	23.0				42.0		30.0
Max Q Clear Time (g_c+I1), s	14.8	21.2				20.2		25.7
Green Ext Time (p_c), s	0.1	1.3				13.1		2.4

Intersection Summary	
HCM 2010 Ctrl Delay	26.2
HCM 2010 LOS	C



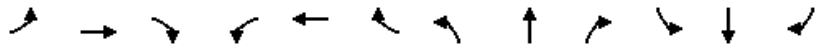
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	472	50	209	29	17	27	99	775	90	28	1112	449
Future Volume (veh/h)	472	50	209	29	17	27	99	775	90	28	1112	449
Number	3	8	18	7	4	14	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.98	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	508	0	209	29	17	27	99	775	90	28	1112	449
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	580	0	257	104	37	60	520	2311	1101	36	1331	838
Arrive On Green	0.16	0.00	0.16	0.06	0.06	0.06	0.59	1.00	1.00	0.02	0.38	0.38
Sat Flow, veh/h	3548	0	1572	1774	641	1017	1774	3539	1545	1774	3539	1540
Grp Volume(v), veh/h	508	0	209	29	0	44	99	775	90	28	1112	449
Grp Sat Flow(s),veh/h/ln	1774	0	1572	1774	0	1658	1774	1770	1545	1774	1770	1540
Q Serve(g_s), s	22.4	0.0	20.5	2.5	0.0	4.1	4.2	0.0	0.0	2.5	45.7	30.3
Cycle Q Clear(g_c), s	22.4	0.0	20.5	2.5	0.0	4.1	4.2	0.0	0.0	2.5	45.7	30.3
Prop In Lane	1.00		1.00	1.00		0.61	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	580	0	257	104	0	97	520	2311	1101	36	1331	838
V/C Ratio(X)	0.88	0.00	0.81	0.28	0.00	0.45	0.19	0.34	0.08	0.79	0.84	0.54
Avail Cap(c_a), veh/h	820	0	363	299	0	280	520	2311	1101	67	1398	867
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.73	0.73	0.73	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.3	0.0	64.6	72.1	0.0	72.8	24.2	0.0	0.0	78.0	45.4	23.9
Incr Delay (d2), s/veh	7.0	0.0	8.0	1.1	0.0	2.4	0.0	0.3	0.1	13.1	6.3	2.5
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	11.6	0.0	9.5	1.3	0.0	1.9	2.0	0.1	0.0	1.4	23.6	18.0
LnGrp Delay(d),s/veh	72.3	0.0	72.5	73.2	0.0	75.3	24.3	0.3	0.1	91.1	51.8	26.4
LnGrp LOS	E		E	E		E	C	A	A	F	D	C
Approach Vol, veh/h		717			73			964			1589	
Approach Delay, s/veh		72.4			74.4			2.7			45.3	
Approach LOS		E			E			A			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.2	109.1		13.6	51.5	64.8		30.2
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.6	* 4.6		4.0
Max Green Setting (Gmax), s	6.3	73.2		* 27	16.0	* 63		37.0
Max Q Clear Time (g_c+I1), s	4.5	2.0		6.1	6.2	47.7		24.4
Green Ext Time (p_c), s	0.0	15.4		0.2	0.1	12.4		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	39.5
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.



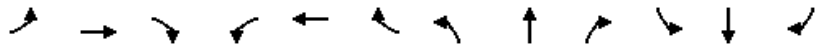
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	397	95	241	441	32	129	162	272	53	216	100
Future Volume (veh/h)	40	397	95	241	441	32	129	162	272	53	216	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.97	1.00		0.97
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	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	40	397	95	241	441	32	129	162	272	53	216	100
Adj No. of Lanes	1	1	1	1	1	0	0	1	1	0	1	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	60	486	398	296	674	49	238	264	530	107	285	117
Arrive On Green	0.03	0.26	0.26	0.17	0.39	0.39	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1774	1863	1526	1774	1712	124	405	762	1530	85	823	338
Grp Volume(v), veh/h	40	397	95	241	0	473	291	0	272	369	0	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1526	1774	0	1836	1168	0	1530	1245	0	0
Q Serve(g_s), s	1.2	10.6	2.6	7.0	0.0	11.2	0.0	0.0	7.5	4.2	0.0	0.0
Cycle Q Clear(g_c), s	1.2	10.6	2.6	7.0	0.0	11.2	11.4	0.0	7.5	15.6	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.07	0.44		1.00	0.14		0.27
Lane Grp Cap(c), veh/h	60	486	398	296	0	723	502	0	530	509	0	0
V/C Ratio(X)	0.67	0.82	0.24	0.82	0.00	0.65	0.58	0.00	0.51	0.73	0.00	0.00
Avail Cap(c_a), veh/h	134	562	460	368	0	796	571	0	606	586	0	0
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	25.3	18.4	15.5	21.3	0.0	13.1	14.4	0.0	13.8	15.7	0.0	0.0
Incr Delay (d2), s/veh	12.3	8.1	0.3	10.9	0.0	1.7	1.1	0.0	0.8	3.8	0.0	0.0
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	0.8	6.5	1.1	4.3	0.0	6.0	3.8	0.0	3.3	5.7	0.0	0.0
LnGrp Delay(d),s/veh	37.7	26.6	15.8	32.2	0.0	14.8	15.5	0.0	14.6	19.4	0.0	0.0
LnGrp LOS	D	C	B	C		B	B		B	B		
Approach Vol, veh/h		532			714			563			369	
Approach Delay, s/veh		25.5			20.7			15.1			19.4	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		22.4	12.8	17.8		22.4	5.8	24.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		21.0	11.0	16.0		21.0	4.0	23.0
Max Q Clear Time (g_c+I1), s		13.4	9.0	12.6		17.6	3.2	13.2
Green Ext Time (p_c), s		1.9	0.1	0.9		0.8	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	20.2
HCM 2010 LOS	C

Notes

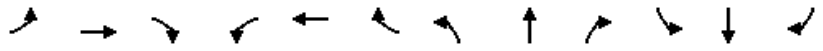
User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	320	0	321	365	233	0	1942	115	173	1538	13
Future Volume (veh/h)	2	320	0	321	365	233	0	1942	115	173	1538	13
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	5	20	0	118	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	2	320	0	321	365	233	0	1942	115	173	1538	0
Adj No. of Lanes	1	2	0	1	1	1	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	4	444	0	341	555	473	1	2450	55	191	2192	981
Arrive On Green	0.00	0.10	0.00	0.19	0.30	0.30	0.00	0.51	0.51	0.11	0.64	0.00
Sat Flow, veh/h	1774	3632	0	1774	1863	1549	1774	4908	290	1774	3539	1583
Grp Volume(v), veh/h	2	320	0	321	365	233	0	1339	718	173	1538	0
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1774	1863	1549	1774	1695	1807	1774	1770	1583
Q Serve(g_s), s	0.2	16.5	0.0	33.0	31.8	18.1	0.0	59.5	60.0	17.8	51.5	0.0
Cycle Q Clear(g_c), s	0.2	16.5	0.0	33.0	31.8	18.1	0.0	59.5	60.0	17.8	51.5	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	4	444	0	341	555	473	1	1621	882	191	2192	981
V/C Ratio(X)	0.53	0.72	0.00	0.94	0.66	0.49	0.00	0.83	0.81	0.90	0.70	0.00
Avail Cap(c_a), veh/h	38	440	0	441	654	544	38	1722	918	249	2258	1010
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	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	95.6	80.6	0.0	76.3	57.9	35.2	0.0	51.3	50.8	84.5	24.7	0.0
Incr Delay (d2), s/veh	85.0	5.7	0.0	24.7	1.9	0.8	0.0	5.0	8.1	27.9	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	1.7	25.4	0.0	96.4	76.7	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	8.5	0.0	19.1	18.3	15.6	0.0	66.7	67.8	10.6	27.9	0.0
LnGrp Delay(d),s/veh	180.6	86.3	0.0	101.1	61.5	61.4	0.0	152.7	135.6	112.5	26.6	0.0
LnGrp LOS	F	F		F	E	E		F	F	F	C	
Approach Vol, veh/h		322			919			2057			1711	
Approach Delay, s/veh		86.9			75.3			146.7			35.2	
Approach LOS		F			E			F			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	24.1	98.0	39.7	23.3	0.0	122.1	4.4	58.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	20.0	94.0	46.0	23.0	4.0	116.0	4.0	65.0
Max Q Clear Time (g_c+I1), s	19.8	62.0	35.0	18.5	0.0	53.5	2.2	33.8
Green Ext Time (p_c), s	0.2	20.6	0.7	0.8	0.0	20.1	0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	91.7
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	246	452	112	677	443	293	143	2217	613	319	1783	135
Future Volume (veh/h)	246	452	112	677	443	293	143	2217	613	319	1783	135
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		0.96	1.00		0.96	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	246	452	112	677	443	293	143	2217	613	319	1783	135
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	415	102	551	362	414	142	1861	1075	256	1840	1004
Arrive On Green	0.11	0.15	0.15	0.16	0.19	0.19	0.08	0.53	0.53	0.07	0.52	0.52
Sat Flow, veh/h	1774	2793	686	3442	1863	1527	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	246	285	279	677	443	293	143	2217	613	319	1783	135
Grp Sat Flow(s),veh/h/ln	1774	1770	1709	1721	1863	1527	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	20.0	26.0	26.0	28.0	34.0	30.4	14.0	92.0	35.5	13.0	85.3	6.0
Cycle Q Clear(g_c), s	20.0	26.0	26.0	28.0	34.0	30.4	14.0	92.0	35.5	13.0	85.3	6.0
Prop In Lane	1.00		0.40	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	203	263	254	551	362	414	142	1861	1075	256	1840	1004
V/C Ratio(X)	1.21	1.08	1.10	1.23	1.22	0.71	1.01	1.19	0.57	1.25	0.97	0.13
Avail Cap(c_a), veh/h	203	263	254	551	362	414	142	1861	1075	256	1840	1004
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	77.5	74.5	74.5	73.5	70.5	57.9	80.5	41.5	14.2	81.0	40.6	12.8
Incr Delay (d2), s/veh	132.6	79.5	85.7	118.5	123.1	5.4	77.6	91.8	2.2	139.8	14.8	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.3	18.5	18.3	22.4	29.9	13.5	9.9	68.4	15.8	11.1	45.4	2.7
LnGrp Delay(d),s/veh	210.1	154.0	160.2	192.0	193.6	63.4	158.1	133.3	16.4	220.8	55.4	13.1
LnGrp LOS	F	F	F	F	F	E	F	F	B	F	E	B
Approach Vol, veh/h		810			1413			2973			2237	
Approach Delay, s/veh		173.2			165.8			110.4			76.4	
Approach LOS		F			F			F			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	17.0	96.0	32.0	30.0	18.0	95.0	24.0	38.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	92.0	28.0	26.0	14.0	91.0	20.0	34.0
Max Q Clear Time (g_c+I1), s	15.0	94.0	30.0	28.0	16.0	87.3	22.0	36.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	117.6
HCM 2010 LOS	F

Notes

User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1033	619	1476	0	0	1286
Future Volume (veh/h)	1033	619	1476	0	0	1286
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	1033	619	1476	0	0	1286
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	1192	965	1946	0	0	1946
Arrive On Green	0.35	0.35	0.55	0.00	0.00	0.55
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	1033	619	1476	0	0	1286
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	22.4	14.9	25.8	0.0	0.0	20.5
Cycle Q Clear(g_c), s	22.4	14.9	25.8	0.0	0.0	20.5
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	1192	965	1946	0	0	1946
V/C Ratio(X)	0.87	0.64	0.76	0.00	0.00	0.66
Avail Cap(c_a), veh/h	1282	1038	1946	0	0	1946
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.64	0.00	0.00	1.00
Uniform Delay (d), s/veh	24.4	22.0	13.9	0.0	0.0	12.7
Incr Delay (d2), s/veh	6.2	1.2	1.8	0.0	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.6	5.8	13.0	0.0	0.0	10.5
LnGrp Delay(d),s/veh	30.6	23.2	15.7	0.0	0.0	14.5
LnGrp LOS	C	C	B			B
Approach Vol, veh/h	1652		1476			1286
Approach Delay, s/veh	27.8		15.7			14.5
Approach LOS	C		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		48.1				48.1		31.9
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		41.9				41.9		29.8
Max Q Clear Time (g_c+I1), s		27.8				22.5		24.4
Green Ext Time (p_c), s		9.1				9.6		3.3

Intersection Summary	
HCM 2010 Ctrl Delay	19.9
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1091	320	0	848	1758	0
Future Volume (veh/h)	1091	320	0	848	1758	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1091	320	0	848	1758	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1183	544	0	1960	1960	0
Arrive On Green	0.34	0.34	0.00	0.55	0.74	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1091	320	0	848	1758	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	24.4	13.3	0.0	11.2	30.8	0.0
Cycle Q Clear(g_c), s	24.4	13.3	0.0	11.2	30.8	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1183	544	0	1960	1960	0
V/C Ratio(X)	0.92	0.59	0.00	0.43	0.90	0.00
Avail Cap(c_a), veh/h	1248	574	0	1960	1960	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.33	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.58	0.00
Uniform Delay (d), s/veh	25.2	21.6	0.0	10.5	8.8	0.0
Incr Delay (d2), s/veh	10.7	0.9	0.0	0.7	4.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.3	5.9	0.0	5.6	15.5	0.0
LnGrp Delay(d),s/veh	35.9	22.5	0.0	11.2	13.0	0.0
LnGrp LOS	D	C		B	B	
Approach Vol, veh/h	1411			848	1758	
Approach Delay, s/veh	32.8			11.2	13.0	
Approach LOS	C			B	B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		48.4		31.6		48.4		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		42.8		29.0		42.8		
Max Q Clear Time (g_c+I1), s		13.2		26.4		32.8		
Green Ext Time (p_c), s		4.4		1.1		6.5		

Intersection Summary	
HCM 2010 Ctrl Delay	19.6
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	28.7
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	39	413	58	115	536	45	74	127	90	30	145	83
Future Vol, veh/h	39	413	58	115	536	45	74	127	90	30	145	83
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	413	58	115	536	45	74	127	90	30	145	83
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	22.1	37.2	25.3	22.4
HCM LOS	C	E	D	C

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	25%	16%	0%	30%	0%	12%
Vol Thru, %	44%	84%	78%	70%	86%	56%
Vol Right, %	31%	0%	22%	0%	14%	32%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	291	246	265	383	313	258
LT Vol	74	39	0	115	0	30
Through Vol	127	207	207	268	268	145
RT Vol	90	0	58	0	45	83
Lane Flow Rate	291	246	264	383	313	258
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.655	0.572	0.599	0.872	0.69	0.589
Departure Headway (Hd)	8.103	8.395	8.153	8.198	7.938	8.222
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	445	430	442	444	457	439
Service Time	6.146	6.142	5.9	5.945	5.685	6.269
HCM Lane V/C Ratio	0.654	0.572	0.597	0.863	0.685	0.588
HCM Control Delay	25.3	21.8	22.4	45.9	26.6	22.4
HCM Lane LOS	D	C	C	E	D	C
HCM 95th-tile Q	4.6	3.5	3.8	9	5.2	3.7

Intersection	
Int Delay, s/veh	20.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	65	877	7	8	509	54	9	6	35	107	2	96
Future Vol, veh/h	65	877	7	8	509	54	9	6	35	107	2	96
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	65	877	7	8	509	54	9	6	35	107	2	96

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	594	0	0	900	0	0	1299	1637	483	1180	1613	313
Stage 1	-	-	-	-	-	-	1027	1027	-	583	583	-
Stage 2	-	-	-	-	-	-	272	610	-	597	1030	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	978	-	-	751	-	-	119	100	530	146	103	683
Stage 1	-	-	-	-	-	-	251	310	-	465	497	-
Stage 2	-	-	-	-	-	-	711	483	-	456	309	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	953	-	-	741	-	-	87	82	512	109	84	665
Mov Cap-2 Maneuver	-	-	-	-	-	-	87	82	-	109	84	-
Stage 1	-	-	-	-	-	-	214	265	-	392	476	-
Stage 2	-	-	-	-	-	-	596	463	-	352	264	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.1	0.2	28.3	167.3
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	204	953	-	-	741	-	-	178
HCM Lane V/C Ratio	0.245	0.068	-	-	0.011	-	-	1.152
HCM Control Delay (s)	28.3	9.1	0.5	-	9.9	0.1	-	167.3
HCM Lane LOS	D	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.9	0.2	-	-	0	-	-	10.6

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	101	29	72	157	1	13	1	79	4	5	0
Future Vol, veh/h	0	101	29	72	157	1	13	1	79	4	5	0
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	101	29	72	157	1	13	1	79	4	5	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	162	0	0	131	0	0	422	423	118	463	437	163
Stage 1	-	-	-	-	-	-	117	117	-	306	306	-
Stage 2	-	-	-	-	-	-	305	306	-	157	131	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1417	-	-	1454	-	-	542	522	934	509	513	882
Stage 1	-	-	-	-	-	-	888	799	-	704	662	-
Stage 2	-	-	-	-	-	-	705	662	-	845	788	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1412	-	-	1453	-	-	515	492	932	444	483	878
Mov Cap-2 Maneuver	-	-	-	-	-	-	515	492	-	444	483	-
Stage 1	-	-	-	-	-	-	887	798	-	702	624	-
Stage 2	-	-	-	-	-	-	661	624	-	772	787	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2.4	9.9	12.9
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	830	1412	-	-	1453	-	-	465
HCM Lane V/C Ratio	0.112	-	-	-	0.05	-	-	0.019
HCM Control Delay (s)	9.9	0	-	-	7.6	0	-	12.9
HCM Lane LOS	A	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0.2	-	-	0.1

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	81	20	89	115	2	5	12	17	6	54	29
Future Vol, veh/h	7	81	20	89	115	2	5	12	17	6	54	29
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	81	20	89	115	2	5	12	17	6	54	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	119	0	0	103	0	0	444	404	94	417	413	119
Stage 1	-	-	-	-	-	-	107	107	-	296	296	-
Stage 2	-	-	-	-	-	-	337	297	-	121	117	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1469	-	-	1489	-	-	524	536	963	546	529	933
Stage 1	-	-	-	-	-	-	898	807	-	712	668	-
Stage 2	-	-	-	-	-	-	677	668	-	883	799	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1467	-	-	1487	-	-	440	497	961	497	491	931
Mov Cap-2 Maneuver	-	-	-	-	-	-	440	497	-	497	491	-
Stage 1	-	-	-	-	-	-	892	801	-	707	624	-
Stage 2	-	-	-	-	-	-	560	624	-	849	793	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	3.3	11	12.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	639	1467	-	-	1487	-	-	581
HCM Lane V/C Ratio	0.053	0.005	-	-	0.06	-	-	0.153
HCM Control Delay (s)	11	7.5	0	-	7.6	0	-	12.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.2	-	-	0.5

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	89	10	64	192	1	10	3	18	3	7	8
Future Vol, veh/h	10	89	10	64	192	1	10	3	18	3	7	8
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	89	10	64	192	1	10	3	18	3	7	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	194	0	0	99	0	0	443	436	96	449	441	195
Stage 1	-	-	-	-	-	-	114	114	-	322	322	-
Stage 2	-	-	-	-	-	-	329	322	-	127	119	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1379	-	-	1494	-	-	525	514	960	520	510	846
Stage 1	-	-	-	-	-	-	891	801	-	690	651	-
Stage 2	-	-	-	-	-	-	684	651	-	877	797	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1378	-	-	1494	-	-	492	485	958	485	481	845
Mov Cap-2 Maneuver	-	-	-	-	-	-	492	485	-	485	481	-
Stage 1	-	-	-	-	-	-	884	795	-	684	619	-
Stage 2	-	-	-	-	-	-	637	619	-	849	791	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	1.9	10.5	11.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	684	1378	-	-	1494	-	-	596
HCM Lane V/C Ratio	0.045	0.007	-	-	0.043	-	-	0.03
HCM Control Delay (s)	10.5	7.6	0	-	7.5	0	-	11.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.1

Intersection	
Int Delay, s/veh	4.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	167	2	38	84	2	158
Future Vol, veh/h	167	2	38	84	2	158
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	167	2	38	84	2	158

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	172	0	332	171
Stage 1	-	-	-	-	171	-
Stage 2	-	-	-	-	161	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1405	-	663	873
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	868	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1401	-	642	871
Mov Cap-2 Maneuver	-	-	-	-	642	-
Stage 1	-	-	-	-	857	-
Stage 2	-	-	-	-	843	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	10.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	867	-	-	1401	-
HCM Lane V/C Ratio	0.185	-	-	0.027	-
HCM Control Delay (s)	10.1	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	96	90	1	2	149	3	3	5	5	6	5	79
Future Vol, veh/h	96	90	1	2	149	3	3	5	5	6	5	79
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	96	90	1	2	149	3	3	5	5	6	5	79

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	154	0	0	92	0	0	482	442	92	445	441	154
Stage 1	-	-	-	-	-	-	284	284	-	157	157	-
Stage 2	-	-	-	-	-	-	198	158	-	288	284	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1426	-	-	1503	-	-	495	510	965	523	510	892
Stage 1	-	-	-	-	-	-	723	676	-	845	768	-
Stage 2	-	-	-	-	-	-	804	767	-	720	676	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1424	-	-	1502	-	-	422	472	964	487	472	890
Mov Cap-2 Maneuver	-	-	-	-	-	-	422	472	-	487	472	-
Stage 1	-	-	-	-	-	-	671	627	-	783	766	-
Stage 2	-	-	-	-	-	-	727	765	-	660	627	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4	0.1	11.5	10
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	568	1424	-	-	1502	-	-	806
HCM Lane V/C Ratio	0.023	0.067	-	-	0.001	-	-	0.112
HCM Control Delay (s)	11.5	7.7	0	-	7.4	0	-	10
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.4

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	33	33	7	14	41	55	5	130	31	62	152	35
Future Vol, veh/h	33	33	7	14	41	55	5	130	31	62	152	35
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	33	7	14	41	55	5	130	31	62	152	35
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	8.7	8.6	8.8	9.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	45%	13%	25%
Vol Thru, %	78%	45%	37%	61%
Vol Right, %	19%	10%	50%	14%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	166	73	110	249
LT Vol	5	33	14	62
Through Vol	130	33	41	152
RT Vol	31	7	55	35
Lane Flow Rate	166	73	110	249
Geometry Grp	1	1	1	1
Degree of Util (X)	0.21	0.103	0.144	0.314
Departure Headway (Hd)	4.558	5.058	4.705	4.534
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	785	705	759	792
Service Time	2.601	3.111	2.754	2.574
HCM Lane V/C Ratio	0.211	0.104	0.145	0.314
HCM Control Delay	8.8	8.7	8.6	9.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.8	0.3	0.5	1.3

Intersection	
Intersection Delay, s/veh	40.3
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	104	29	49	88	53	189	29	260	49	57	411	67
Future Vol, veh/h	104	29	49	88	53	189	29	260	49	57	411	67
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	104	29	49	88	53	189	29	260	49	57	411	67
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	16.8	24.1	24.8	68.1
HCM LOS	C	C	C	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	57%	27%	11%
Vol Thru, %	77%	16%	16%	77%
Vol Right, %	14%	27%	57%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	338	182	330	535
LT Vol	29	104	88	57
Through Vol	260	29	53	411
RT Vol	49	49	189	67
Lane Flow Rate	338	182	330	535
Geometry Grp	1	1	1	1
Degree of Util (X)	0.683	0.41	0.669	1.01
Departure Headway (Hd)	7.275	8.221	7.3	6.794
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	493	440	492	530
Service Time	5.37	6.221	5.392	4.875
HCM Lane V/C Ratio	0.686	0.414	0.671	1.009
HCM Control Delay	24.8	16.8	24.1	68.1
HCM Lane LOS	C	C	C	F
HCM 95th-tile Q	5.1	2	4.9	14.4

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	18	79	5	20	1	96	1	2	0	0	0
Future Vol, veh/h	1	18	79	5	20	1	96	1	2	0	0	0
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	18	79	5	20	1	96	1	2	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	21	0	0	98	0	0	92	92	59	92	131	21
Stage 1	-	-	-	-	-	-	61	61	-	31	31	-
Stage 2	-	-	-	-	-	-	31	31	-	61	100	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1595	-	-	1495	-	-	892	798	1007	892	760	1056
Stage 1	-	-	-	-	-	-	950	844	-	986	869	-
Stage 2	-	-	-	-	-	-	986	869	-	950	812	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1595	-	-	1494	-	-	888	794	1006	887	756	1056
Mov Cap-2 Maneuver	-	-	-	-	-	-	888	794	-	887	756	-
Stage 1	-	-	-	-	-	-	948	842	-	985	866	-
Stage 2	-	-	-	-	-	-	983	866	-	946	810	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.4	9.6	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	889	1595	-	-	1494	-	-	-
HCM Lane V/C Ratio	0.111	0.001	-	-	0.003	-	-	-
HCM Control Delay (s)	9.6	7.3	0	-	7.4	0	-	0
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	48	25	22	973	841	64
Future Vol, veh/h	48	25	22	973	841	64
Conflicting Peds, #/hr	0	0	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	25	22	973	841	64

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1861	844	908	0	-	0
Stage 1	844	-	-	-	-	-
Stage 2	1017	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	80	363	750	-	-	-
Stage 1	422	-	-	-	-	-
Stage 2	349	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	75	362	748	-	-	-
Mov Cap-2 Maneuver	257	-	-	-	-	-
Stage 1	394	-	-	-	-	-
Stage 2	348	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21.9	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	748	-	285	-	-
HCM Lane V/C Ratio	0.029	-	0.256	-	-
HCM Control Delay (s)	10	0	21.9	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	536	41	456	624	0	724
Future Volume (veh/h)	536	41	456	624	0	724
Number	7	14	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1900	1863	1900	0	1863
Adj Flow Rate, veh/h	536	41	456	0	0	724
Adj No. of Lanes	0	0	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	2	2	0	2
Cap, veh/h	613	47	1265	0	0	1265
Arrive On Green	0.38	0.38	0.36	0.00	0.00	0.36
Sat Flow, veh/h	1631	125	3725	0	0	3725
Grp Volume(v), veh/h	578	0	456	0	0	724
Grp Sat Flow(s),veh/h/ln	1759	0	1770	0	0	1770
Q Serve(g_s), s	8.6	0.0	2.7	0.0	0.0	4.7
Cycle Q Clear(g_c), s	8.6	0.0	2.7	0.0	0.0	4.7
Prop In Lane	0.93	0.07		0.00	0.00	
Lane Grp Cap(c), veh/h	662	0	1265	0	0	1265
V/C Ratio(X)	0.87	0.00	0.36	0.00	0.00	0.57
Avail Cap(c_a), veh/h	1000	0	2074	0	0	2074
HCM Platoon Ratio	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	1.00
Uniform Delay (d), s/veh	8.2	0.0	6.7	0.0	0.0	7.3
Incr Delay (d2), s/veh	3.9	0.0	0.2	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	1.3	0.0	0.0	2.3
LnGrp Delay(d),s/veh	12.1	0.0	6.9	0.0	0.0	7.8
LnGrp LOS	B		A			A
Approach Vol, veh/h	578		456			724
Approach Delay, s/veh	12.1		6.9			7.8
Approach LOS	B		A			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		14.6		13.6		14.6		
Change Period (Y+Rc), s		4.5		3.0		4.5		
Max Green Setting (Gmax), s		16.5		16.0		16.5		
Max Q Clear Time (g_c+I1), s		4.7		10.6		6.7		
Green Ext Time (p_c), s		2.7		0.1		3.4		

Intersection Summary	
HCM 2010 Ctrl Delay	9.0
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	435	386	20	578	118	223	216	17	79	371	88
Future Volume (veh/h)	65	435	386	20	578	118	223	216	17	79	371	88
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.90	1.00		0.91	1.00		0.97	1.00		0.97
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	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	65	435	386	20	578	118	223	216	17	79	371	88
Adj No. of Lanes	0	2	1	0	2	0	0	1	1	0	1	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	126	734	931	49	951	192	249	241	413	89	416	418
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	231	2085	1432	45	2702	546	923	894	1532	324	1522	1532
Grp Volume(v), veh/h	160	340	386	384	0	332	439	0	17	450	0	88
Grp Sat Flow(s),veh/h/ln	706	1610	1432	1758	0	1534	1817	0	1532	1847	0	1532
Q Serve(g_s), s	9.6	19.7	15.9	0.1	0.0	20.3	26.5	0.0	0.9	26.6	0.0	5.0
Cycle Q Clear(g_c), s	30.0	19.7	15.9	19.9	0.0	20.3	26.5	0.0	0.9	26.6	0.0	5.0
Prop In Lane	0.41		1.00	0.05		0.36	0.51		1.00	0.18		1.00
Lane Grp Cap(c), veh/h	293	567	931	652	0	540	490	0	413	504	0	418
V/C Ratio(X)	0.55	0.60	0.41	0.59	0.00	0.61	0.90	0.00	0.04	0.89	0.00	0.21
Avail Cap(c_a), veh/h	293	567	931	652	0	540	623	0	526	633	0	526
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.8	30.3	11.2	30.1	0.0	30.5	40.0	0.0	30.7	39.7	0.0	31.9
Incr Delay (d2), s/veh	7.2	4.6	1.4	3.9	0.0	5.2	13.3	0.0	0.0	12.8	0.0	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	5.2	9.5	11.1	10.5	0.0	9.3	15.1	0.0	0.4	15.4	0.0	2.2
LnGrp Delay(d),s/veh	42.9	34.9	12.5	34.0	0.0	35.6	53.3	0.0	30.7	52.5	0.0	32.1
LnGrp LOS	D	C	B	C		D	D		C	D		C
Approach Vol, veh/h		886			716			456			538	
Approach Delay, s/veh		26.6			34.7			52.5			49.2	
Approach LOS		C			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		44.0		34.6		44.0		35.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		40.0		39.0		40.0		39.0
Max Q Clear Time (g_c+I1), s		32.0		28.5		22.3		28.6
Green Ext Time (p_c), s		3.1		2.2		4.5		2.4

Intersection Summary	
HCM 2010 Ctrl Delay	38.1
HCM 2010 LOS	D

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	324	288	502	394	427	399
Future Volume (veh/h)	324	288	502	394	427	399
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.97	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	324	288	502	394	427	399
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	350	1253	829	683	466	728
Arrive On Green	0.20	0.67	0.44	0.44	0.26	0.26
Sat Flow, veh/h	1774	1863	1863	1536	1774	1583
Grp Volume(v), veh/h	324	288	502	394	427	399
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1536	1774	1583
Q Serve(g_s), s	23.4	7.8	26.7	25.0	30.5	23.7
Cycle Q Clear(g_c), s	23.4	7.8	26.7	25.0	30.5	23.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	350	1253	829	683	466	728
V/C Ratio(X)	0.93	0.23	0.61	0.58	0.92	0.55
Avail Cap(c_a), veh/h	462	1253	829	683	595	844
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	51.4	8.3	27.5	27.0	46.7	25.4
Incr Delay (d2), s/veh	18.5	0.4	3.3	3.5	15.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.2	4.1	14.4	11.3	17.0	22.3
LnGrp Delay(d),s/veh	69.9	8.7	30.8	30.6	62.3	25.9
LnGrp LOS	E	A	C	C	E	C
Approach Vol, veh/h		612	896		826	
Approach Delay, s/veh		41.1	30.7		44.7	
Approach LOS		D	C		D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		92.0		38.5	29.7	62.3		
Change Period (Y+Rc), s		* 4.2		* 4.2	4.0	* 4.2		
Max Green Setting (Gmax), s		* 88		* 44	34.0	* 50		
Max Q Clear Time (g_c+I1), s		9.8		32.5	25.4	28.7		
Green Ext Time (p_c), s		1.2		1.8	0.3	2.9		

Intersection Summary	
HCM 2010 Ctrl Delay	38.4
HCM 2010 LOS	D

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	50	10	86	19	147	2	682	108	194	843	54
Future Volume (veh/h)	79	50	10	86	19	147	2	682	108	194	843	54
Number	7	4	14	3	8	18	1	6	16	5	2	12
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		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	1863	1863	1900	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	79	50	10	86	19	147	2	682	108	194	843	54
Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	121	70	12	218	44	1000	26	806	127	806	2546	163
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.27	0.27	0.27	0.45	0.75	0.75
Sat Flow, veh/h	447	385	65	948	242	1553	2	2985	471	1774	3378	216
Grp Volume(v), veh/h	139	0	0	105	0	147	426	0	366	194	442	455
Grp Sat Flow(s),veh/h/ln	897	0	0	1190	0	1553	1860	0	1598	1774	1770	1824
Q Serve(g_s), s	11.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.4	9.4	11.5	11.5
Cycle Q Clear(g_c), s	22.8	0.0	0.0	11.2	0.0	0.0	30.3	0.0	30.4	9.4	11.5	11.5
Prop In Lane	0.57		0.07	0.82		1.00	0.00		0.29	1.00		0.12
Lane Grp Cap(c), veh/h	202	0	0	262	0	1000	528	0	432	806	1334	1375
V/C Ratio(X)	0.69	0.00	0.00	0.40	0.00	0.15	0.81	0.00	0.85	0.24	0.33	0.33
Avail Cap(c_a), veh/h	284	0	0	343	0	1090	846	0	707	806	1334	1375
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	0.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	59.5	0.0	0.0	51.5	0.0	10.3	48.3	0.0	48.4	23.4	5.7	5.7
Incr Delay (d2), s/veh	3.1	0.0	0.0	0.7	0.0	0.0	12.4	0.0	18.5	0.0	0.5	0.5
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	5.5	0.0	0.0	3.7	0.0	2.3	17.4	0.0	15.6	4.6	5.7	5.9
LnGrp Delay(d),s/veh	62.6	0.0	0.0	52.2	0.0	10.3	60.8	0.0	66.9	23.4	6.2	6.1
LnGrp LOS	E			D		B	E		E	C	A	A
Approach Vol, veh/h		139			252			792			1091	
Approach Delay, s/veh		62.6			27.8			63.6			9.2	
Approach LOS		E			C			E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		110.1		29.9	68.2	41.9		29.9
Change Period (Y+Rc), s		4.6		4.6	4.6	* 4.1		4.6
Max Green Setting (Gmax), s		97.4		33.4	31.9	* 62		33.4
Max Q Clear Time (g_c+I1), s		13.5		24.8	11.4	32.4		13.2
Green Ext Time (p_c), s		7.2		0.4	0.2	5.4		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	33.5
HCM 2010 LOS	C

Notes

* HCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	697	956	1444	339	316	680
Future Volume (veh/h)	697	956	1444	339	316	680
Number	1	6	2	12	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.96	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	697	956	1444	339	316	680
Adj No. of Lanes	2	3	3	0	1	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	782	3384	1554	363	388	1243
Arrive On Green	0.23	0.67	0.38	0.38	0.22	0.22
Sat Flow, veh/h	3442	5253	4254	955	1774	2787
Grp Volume(v), veh/h	697	956	1197	586	316	680
Grp Sat Flow(s),veh/h/ln	1721	1695	1695	1651	1774	1393
Q Serve(g_s), s	13.6	5.4	23.4	23.6	11.7	12.4
Cycle Q Clear(g_c), s	13.6	5.4	23.4	23.6	11.7	12.4
Prop In Lane	1.00			0.58	1.00	1.00
Lane Grp Cap(c), veh/h	782	3384	1289	628	388	1243
V/C Ratio(X)	0.89	0.28	0.93	0.93	0.81	0.55
Avail Cap(c_a), veh/h	797	3384	1289	628	411	1278
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	25.9	4.8	20.5	20.6	25.7	14.0
Incr Delay (d2), s/veh	12.1	0.2	12.9	22.9	11.4	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	2.5	13.1	14.6	6.9	4.8
LnGrp Delay(d),s/veh	38.0	5.0	33.5	43.4	37.1	14.5
LnGrp LOS	D	A	C	D	D	B
Approach Vol, veh/h		1653	1783		996	
Approach Delay, s/veh		18.9	36.7		21.6	
Approach LOS		B	D		C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	19.7	30.3				50.0		19.1
Change Period (Y+Rc), s	4.0	4.0				4.0		4.0
Max Green Setting (Gmax), s	16.0	26.0				46.0		16.0
Max Q Clear Time (g_c+I1), s	15.6	25.6				7.4		14.4
Green Ext Time (p_c), s	0.2	0.4				7.9		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	475	15	130	138	58	102	185	723	84	30	700	377
Future Volume (veh/h)	475	15	130	138	58	102	185	723	84	30	700	377
Number	3	8	18	7	4	14	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		0.97	1.00		0.97
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	1863	1863	1863
Adj Flow Rate, veh/h	486	0	130	138	58	102	185	723	84	30	700	377
Adj No. of Lanes	2	0	1	1	1	0	1	2	1	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	609	0	270	231	78	138	124	1797	989	40	1630	982
Arrive On Green	0.17	0.00	0.17	0.13	0.13	0.13	0.07	0.51	0.51	0.02	0.46	0.46
Sat Flow, veh/h	3548	0	1572	1774	603	1061	1774	3539	1543	1774	3539	1542
Grp Volume(v), veh/h	486	0	130	138	0	160	185	723	84	30	700	377
Grp Sat Flow(s),veh/h/ln	1774	0	1572	1774	0	1664	1774	1770	1543	1774	1770	1542
Q Serve(g_s), s	13.1	0.0	7.5	7.3	0.0	9.3	7.0	12.6	2.1	1.7	13.3	11.9
Cycle Q Clear(g_c), s	13.1	0.0	7.5	7.3	0.0	9.3	7.0	12.6	2.1	1.7	13.3	11.9
Prop In Lane	1.00		1.00	1.00		0.64	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	609	0	270	231	0	216	124	1797	989	40	1630	982
V/C Ratio(X)	0.80	0.00	0.48	0.60	0.00	0.74	1.49	0.40	0.08	0.75	0.43	0.38
Avail Cap(c_a), veh/h	958	0	425	479	0	449	124	1797	989	71	1630	982
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	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	0.0	37.4	41.0	0.0	41.9	46.5	15.2	6.9	48.6	18.1	9.0
Incr Delay (d2), s/veh	2.0	0.0	1.0	1.8	0.0	3.7	255.9	0.6	0.2	9.8	0.8	1.1
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	6.6	0.0	3.3	3.7	0.0	4.5	12.2	6.3	1.3	0.9	6.7	7.7
LnGrp Delay(d),s/veh	41.7	0.0	38.4	42.9	0.0	45.5	302.4	15.8	7.1	58.4	19.0	10.1
LnGrp LOS	D		D	D		D	F	B	A	E	B	B
Approach Vol, veh/h		616			298			992			1107	
Approach Delay, s/veh		41.0			44.3			68.6			17.0	
Approach LOS		D			D			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.3	55.4		17.2	11.0	50.6		21.2
Change Period (Y+Rc), s	4.0	4.6		* 4.2	4.0	4.6		4.0
Max Green Setting (Gmax), s	4.0	25.2		* 27	7.0	22.2		27.0
Max Q Clear Time (g_c+I1), s	3.7	14.6		11.3	9.0	15.3		15.1
Green Ext Time (p_c), s	0.0	5.9		0.9	0.0	4.9		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	41.6
HCM 2010 LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	358	127	193	309	23	75	161	242	42	144	26
Future Volume (veh/h)	43	358	127	193	309	23	75	161	242	42	144	26
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		0.97	1.00		0.97	0.99		0.96	0.99		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	1863	1863	1863	1900	1900	1863	1863	1900	1863	1900
Adj Flow Rate, veh/h	43	358	127	193	309	23	75	161	242	42	144	26
Adj No. of Lanes	1	1	1	1	1	0	0	1	1	0	1	0
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	535	439	253	669	50	222	336	388	158	311	50
Arrive On Green	0.04	0.29	0.29	0.14	0.39	0.39	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1774	1863	1528	1774	1708	127	381	1317	1522	175	1221	195
Grp Volume(v), veh/h	43	358	127	193	0	332	236	0	242	212	0	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1528	1774	0	1835	1698	0	1522	1591	0	0
Q Serve(g_s), s	0.9	6.5	2.5	4.0	0.0	5.1	0.0	0.0	5.4	0.1	0.0	0.0
Cycle Q Clear(g_c), s	0.9	6.5	2.5	4.0	0.0	5.1	4.2	0.0	5.4	4.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.07	0.32		1.00	0.20		0.12
Lane Grp Cap(c), veh/h	68	535	439	253	0	719	558	0	388	519	0	0
V/C Ratio(X)	0.63	0.67	0.29	0.76	0.00	0.46	0.42	0.00	0.62	0.41	0.00	0.00
Avail Cap(c_a), veh/h	233	929	762	559	0	1253	860	0	679	813	0	0
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.1	12.0	10.6	15.7	0.0	8.6	12.1	0.0	12.6	12.0	0.0	0.0
Incr Delay (d2), s/veh	9.3	1.5	0.4	4.7	0.0	0.5	0.5	0.0	1.6	0.5	0.0	0.0
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	0.6	3.5	1.1	2.3	0.0	2.7	2.2	0.0	2.4	2.0	0.0	0.0
LnGrp Delay(d),s/veh	27.3	13.4	10.9	20.4	0.0	9.1	12.6	0.0	14.2	12.5	0.0	0.0
LnGrp LOS	C	B	B	C		A	B		B	B		
Approach Vol, veh/h		528			525			478			212	
Approach Delay, s/veh		14.0			13.2			13.4			12.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		13.7	9.4	14.9		13.7	5.5	18.9
Change Period (Y+Rc), s		4.0	4.0	4.0		4.0	4.0	4.0
Max Green Setting (Gmax), s		17.0	12.0	19.0		17.0	5.0	26.0
Max Q Clear Time (g_c+I1), s		7.4	6.0	8.5		6.2	2.9	7.1
Green Ext Time (p_c), s		1.7	0.3	2.0		0.9	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	13.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	478	56	165	459	234	102	1619	135	158	1831	45
Future Volume (veh/h)	0	478	56	165	459	234	102	1619	135	158	1831	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	10	40	55	12	175	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	0	478	0	165	459	234	102	1619	135	158	1831	0
Adj No. of Lanes	1	2	0	1	1	1	1	3	0	1	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1	544	0	206	541	450	135	2571	105	251	2033	909
Arrive On Green	0.00	0.15	0.00	0.10	0.28	0.28	0.07	0.52	0.52	0.14	0.59	0.00
Sat Flow, veh/h	1774	3632	0	1774	1863	1548	1774	4779	398	1774	3539	1583
Grp Volume(v), veh/h	0	478	0	165	459	234	102	1148	606	158	1831	0
Grp Sat Flow(s),veh/h/ln	1774	1770	0	1774	1863	1548	1774	1695	1787	1774	1770	1583
Q Serve(g_s), s	0.0	25.2	0.0	17.6	45.1	18.5	10.9	46.7	46.8	16.2	83.7	0.0
Cycle Q Clear(g_c), s	0.0	25.2	0.0	17.6	45.1	18.5	10.9	46.7	46.8	16.2	83.7	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	1	544	0	206	541	450	135	1728	933	251	2033	909
V/C Ratio(X)	0.00	0.88	0.00	0.80	0.85	0.52	0.76	0.66	0.65	0.63	0.90	0.00
Avail Cap(c_a), veh/h	37	704	0	213	556	462	139	1774	935	260	2093	936
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)	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	81.5	0.0	87.0	70.0	38.6	91.1	45.8	44.2	79.6	37.0	0.0
Incr Delay (d2), s/veh	0.0	10.1	0.0	18.8	11.6	1.0	20.3	2.0	3.5	4.6	7.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	85.8	198.0	224.2	210.6	97.7	80.4	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.5	0.0	17.1	61.0	46.4	16.0	66.2	64.6	8.4	45.7	0.0
LnGrp Delay(d),s/veh	0.0	91.6	0.0	191.7	279.6	263.8	322.0	145.5	128.1	84.2	43.9	0.0
LnGrp LOS		F		F	F	F	F	F	F	F	D	
Approach Vol, veh/h		478			858			1856			1989	
Approach Delay, s/veh		91.6			258.4			149.5			47.1	
Approach LOS		F			F			F			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	29.9	104.0	23.7	33.6	16.9	117.0	0.0	57.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	28.0	100.0	23.0	38.0	15.0	113.0	4.0	57.0
Max Q Clear Time (g_c+I1), s	18.2	48.8	19.6	27.2	12.9	85.7	0.0	47.1
Green Ext Time (p_c), s	0.3	20.8	0.1	2.3	0.0	17.9	0.0	2.7

Intersection Summary		
HCM 2010 Ctrl Delay		122.9
HCM 2010 LOS		F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	232	520	132	766	541	296	167	1421	797	322	2187	76
Future Volume (veh/h)	232	520	132	766	541	296	167	1421	797	322	2187	76
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		0.96	1.00		0.97	1.00		0.99	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	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	232	520	132	766	541	296	167	1421	797	322	2187	76
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Peak Hour 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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	171	421	106	570	411	513	135	1635	985	380	1757	939
Arrive On Green	0.10	0.15	0.15	0.17	0.22	0.22	0.08	0.46	0.46	0.11	0.50	0.50
Sat Flow, veh/h	1774	2775	700	3442	1863	1532	1774	3539	1564	3442	3539	1583
Grp Volume(v), veh/h	232	330	322	766	541	296	167	1421	797	322	2187	76
Grp Sat Flow(s),veh/h/ln	1774	1770	1706	1721	1863	1532	1774	1770	1564	1721	1770	1583
Q Serve(g_s), s	14.0	22.0	22.0	24.0	32.0	4.7	11.0	52.3	27.0	13.3	72.0	3.0
Cycle Q Clear(g_c), s	14.0	22.0	22.0	24.0	32.0	4.7	11.0	52.3	27.0	13.3	72.0	3.0
Prop In Lane	1.00		0.41	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	171	268	259	570	411	513	135	1635	985	380	1757	939
V/C Ratio(X)	1.35	1.23	1.24	1.34	1.32	0.58	1.24	0.87	0.81	0.85	1.24	0.08
Avail Cap(c_a), veh/h	171	268	259	570	411	513	135	1635	985	380	1757	939
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	65.5	61.5	61.5	60.5	56.5	23.0	67.0	35.1	7.5	63.3	36.5	12.6
Incr Delay (d2), s/veh	192.7	132.0	137.3	166.6	158.6	1.6	156.2	6.6	7.2	16.3	115.0	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	16.0	20.6	20.2	24.6	34.6	9.4	11.2	27.0	13.3	7.2	63.2	1.3
LnGrp Delay(d),s/veh	258.2	193.5	198.8	227.1	215.1	24.6	223.2	41.6	14.7	79.6	151.5	12.8
LnGrp LOS	F	F	F	F	F	C	F	D	B	E	F	B
Approach Vol, veh/h		884			1603			2385			2585	
Approach Delay, s/veh		212.4			185.6			45.3			138.5	
Approach LOS		F			F			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	20.0	71.0	28.0	26.0	15.0	76.0	18.0	36.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	16.0	67.0	24.0	22.0	11.0	72.0	14.0	32.0
Max Q Clear Time (g_c+I1), s	15.3	54.3	26.0	24.0	13.0	74.0	16.0	34.0
Green Ext Time (p_c), s	0.1	10.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	127.6
HCM 2010 LOS	F

Notes

User approved changes to right turn type.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	546	258	2269	0	0	869
Future Volume (veh/h)	546	258	2269	0	0	869
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863
Adj Flow Rate, veh/h	546	258	2269	0	0	869
Adj No. of Lanes	2	2	2	0	0	2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	0	0	2
Cap, veh/h	709	574	2443	0	0	2443
Arrive On Green	0.21	0.21	0.69	0.00	0.00	0.69
Sat Flow, veh/h	3442	2787	3725	0	0	3725
Grp Volume(v), veh/h	546	258	2269	0	0	869
Grp Sat Flow(s),veh/h/ln	1721	1393	1770	0	0	1770
Q Serve(g_s), s	12.0	6.5	44.3	0.0	0.0	8.1
Cycle Q Clear(g_c), s	12.0	6.5	44.3	0.0	0.0	8.1
Prop In Lane	1.00	1.00		0.00	0.00	
Lane Grp Cap(c), veh/h	709	574	2443	0	0	2443
V/C Ratio(X)	0.77	0.45	0.93	0.00	0.00	0.36
Avail Cap(c_a), veh/h	1076	871	2443	0	0	2443
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.45	0.00	0.00	1.00
Uniform Delay (d), s/veh	30.0	27.8	10.7	0.0	0.0	5.1
Incr Delay (d2), s/veh	1.9	0.6	3.9	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	2.5	22.4	0.0	0.0	4.0
LnGrp Delay(d),s/veh	31.9	28.3	14.6	0.0	0.0	5.5
LnGrp LOS	C	C	B			A
Approach Vol, veh/h	804		2269			869
Approach Delay, s/veh	30.7		14.6			5.5
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		59.3				59.3		20.7
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		46.7				46.7		25.0
Max Q Clear Time (g_c+I1), s		46.3				10.1		14.0
Green Ext Time (p_c), s		0.4				7.4		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	15.9
HCM 2010 LOS	B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1567	401	0	984	947	0
Future Volume (veh/h)	1567	401	0	984	947	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0
Adj Flow Rate, veh/h	1567	401	0	984	947	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h	1688	776	0	1441	1441	0
Arrive On Green	0.49	0.49	0.00	0.41	0.81	0.00
Sat Flow, veh/h	3442	1583	0	3725	3725	0
Grp Volume(v), veh/h	1567	401	0	984	947	0
Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0
Q Serve(g_s), s	34.1	13.8	0.0	18.3	8.6	0.0
Cycle Q Clear(g_c), s	34.1	13.8	0.0	18.3	8.6	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	1688	776	0	1441	1441	0
V/C Ratio(X)	0.93	0.52	0.00	0.68	0.66	0.00
Avail Cap(c_a), veh/h	1846	849	0	1441	1441	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.86	0.00
Uniform Delay (d), s/veh	19.1	13.9	0.0	19.5	5.2	0.0
Incr Delay (d2), s/veh	8.0	0.2	0.0	2.6	2.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.0	6.1	0.0	9.4	4.1	0.0
LnGrp Delay(d),s/veh	27.1	14.1	0.0	22.1	7.2	0.0
LnGrp LOS	C	B		C	A	
Approach Vol, veh/h	1968			984	947	
Approach Delay, s/veh	24.4			22.1	7.2	
Approach LOS	C			C	A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		36.7		43.3		36.7		
Change Period (Y+Rc), s		4.1		4.1		4.1		
Max Green Setting (Gmax), s		28.9		42.9		28.9		
Max Q Clear Time (g_c+I1), s		20.3		36.1		10.6		
Green Ext Time (p_c), s		3.3		3.1		4.5		

Intersection Summary	
HCM 2010 Ctrl Delay	19.7
HCM 2010 LOS	B

Intersection	
Intersection Delay, s/veh	14.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	65	455	70	55	314	25	47	68	67	44	80	31
Future Vol, veh/h	65	455	70	55	314	25	47	68	67	44	80	31
Peak Hour 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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	65	455	70	55	314	25	47	68	67	44	80	31
Number of Lanes	0	2	0	0	2	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	2
HCM Control Delay	15.6	13.3	12.9	12.6
HCM LOS	C	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	26%	22%	0%	26%	0%	28%
Vol Thru, %	37%	78%	76%	74%	86%	52%
Vol Right, %	37%	0%	24%	0%	14%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	182	293	298	212	182	155
LT Vol	47	65	0	55	0	44
Through Vol	68	228	228	157	157	80
RT Vol	67	0	70	0	25	31
Lane Flow Rate	182	292	298	212	182	155
Geometry Grp	2	7	7	7	7	2
Degree of Util (X)	0.335	0.52	0.506	0.399	0.331	0.293
Departure Headway (Hd)	6.626	6.518	6.237	6.779	6.549	6.804
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	544	556	583	534	551	530
Service Time	4.638	4.218	3.937	4.49	4.26	4.826
HCM Lane V/C Ratio	0.335	0.525	0.511	0.397	0.33	0.292
HCM Control Delay	12.9	16.1	15.2	13.9	12.5	12.6
HCM Lane LOS	B	C	C	B	B	B
HCM 95th-tile Q	1.5	3	2.8	1.9	1.4	1.2

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	110	863	18	20	679	55	5	2	17	35	0	90
Future Vol, veh/h	110	863	18	20	679	55	5	2	17	35	0	90
Conflicting Peds, #/hr	31	0	16	16	0	31	0	0	25	25	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	110	863	18	20	679	55	5	2	17	35	0	90

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	765	0	0	897	0	0	1488	1913	482	1456	1895	398
Stage 1	-	-	-	-	-	-	1108	1108	-	778	778	-
Stage 2	-	-	-	-	-	-	380	805	-	678	1117	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
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	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	844	-	-	753	-	-	86	67	530	91	69	601
Stage 1	-	-	-	-	-	-	224	284	-	355	405	-
Stage 2	-	-	-	-	-	-	614	393	-	408	281	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	822	-	-	743	-	-	55	45	512	63	47	585
Mov Cap-2 Maneuver	-	-	-	-	-	-	55	45	-	63	47	-
Stage 1	-	-	-	-	-	-	163	206	-	255	376	-
Stage 2	-	-	-	-	-	-	496	365	-	282	204	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.1	0.4	35.4	64.1
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	142	822	-	-	743	-	-	176
HCM Lane V/C Ratio	0.169	0.134	-	-	0.027	-	-	0.71
HCM Control Delay (s)	35.4	10.1	1.1	-	10	0.2	-	64.1
HCM Lane LOS	E	B	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.6	0.5	-	-	0.1	-	-	4.4

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	86	13	9	105	2	16	2	16	5	0	1
Future Vol, veh/h	1	86	13	9	105	2	16	2	16	5	0	1
Conflicting Peds, #/hr	4	0	1	1	0	4	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	86	13	9	105	2	16	2	16	5	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	111	0	0	100	0	0	222	225	95	233	230	111
Stage 1	-	-	-	-	-	-	96	96	-	128	128	-
Stage 2	-	-	-	-	-	-	126	129	-	105	102	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1479	-	-	1493	-	-	734	674	962	722	670	942
Stage 1	-	-	-	-	-	-	911	815	-	876	790	-
Stage 2	-	-	-	-	-	-	878	789	-	901	811	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1474	-	-	1492	-	-	728	667	960	702	663	938
Mov Cap-2 Maneuver	-	-	-	-	-	-	728	667	-	702	663	-
Stage 1	-	-	-	-	-	-	909	813	-	872	783	-
Stage 2	-	-	-	-	-	-	871	782	-	882	809	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.6	9.6	10
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	816	1474	-	-	1492	-	-	733
HCM Lane V/C Ratio	0.042	0.001	-	-	0.006	-	-	0.008
HCM Control Delay (s)	9.6	7.4	0	-	7.4	0	-	10
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	47	7	11	67	11	19	16	21	6	37	8
Future Vol, veh/h	8	47	7	11	67	11	19	16	21	6	37	8
Conflicting Peds, #/hr	2	0	2	2	0	2	1	0	1	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	47	7	11	67	11	19	16	21	6	37	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	80	0	0	56	0	0	187	171	54	183	169	76
Stage 1	-	-	-	-	-	-	69	69	-	97	97	-
Stage 2	-	-	-	-	-	-	118	102	-	86	72	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1518	-	-	1549	-	-	774	722	1013	778	724	985
Stage 1	-	-	-	-	-	-	941	837	-	910	815	-
Stage 2	-	-	-	-	-	-	887	811	-	922	835	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1515	-	-	1546	-	-	729	710	1010	740	712	983
Mov Cap-2 Maneuver	-	-	-	-	-	-	729	710	-	740	712	-
Stage 1	-	-	-	-	-	-	934	831	-	904	808	-
Stage 2	-	-	-	-	-	-	833	804	-	880	829	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1	0.9	9.8	10.2
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	807	1515	-	-	1546	-	-	748
HCM Lane V/C Ratio	0.069	0.005	-	-	0.007	-	-	0.068
HCM Control Delay (s)	9.8	7.4	0	-	7.3	0	-	10.2
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	54	2	15	64	2	8	13	15	1	4	6
Future Vol, veh/h	1	54	2	15	64	2	8	13	15	1	4	6
Conflicting Peds, #/hr	1	0	0	0	0	1	1	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	54	2	15	64	2	8	13	15	1	4	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	67	0	0	56	0	0	158	154	57	169	154	67
Stage 1	-	-	-	-	-	-	57	57	-	96	96	-
Stage 2	-	-	-	-	-	-	101	97	-	73	58	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1535	-	-	1549	-	-	808	738	1009	795	738	997
Stage 1	-	-	-	-	-	-	955	847	-	911	815	-
Stage 2	-	-	-	-	-	-	905	815	-	937	847	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1534	-	-	1549	-	-	793	729	1007	764	729	995
Mov Cap-2 Maneuver	-	-	-	-	-	-	793	729	-	764	729	-
Stage 1	-	-	-	-	-	-	954	846	-	909	806	-
Stage 2	-	-	-	-	-	-	885	806	-	906	846	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.4	9.5	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	841	1534	-	-	1549	-	-	858
HCM Lane V/C Ratio	0.043	0.001	-	-	0.01	-	-	0.013
HCM Control Delay (s)	9.5	7.3	0	-	7.3	0	-	9.3
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	66	0	21	49	3	54
Future Vol, veh/h	66	0	21	49	3	54
Conflicting Peds, #/hr	0	3	3	0	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	0	21	49	3	54

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	69	0	161	69
Stage 1	-	-	-	-	69	-
Stage 2	-	-	-	-	92	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1532	-	848	994
Stage 1	-	-	-	-	954	-
Stage 2	-	-	-	-	944	-
Platoon blocked, %	-	-		-	1	
Mov Cap-1 Maneuver	-	-	1528	-	834	992
Mov Cap-2 Maneuver	-	-	-	-	834	-
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	930	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.2	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	982	-	-	1528	-
HCM Lane V/C Ratio	0.058	-	-	0.014	-
HCM Control Delay (s)	8.9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	42	58	8	5	76	5	2	4	3	2	3	41
Future Vol, veh/h	42	58	8	5	76	5	2	4	3	2	3	41
Conflicting Peds, #/hr	2	0	1	1	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	42	58	8	5	76	5	2	4	3	2	3	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	83	0	0	67	0	0	259	240	63	241	242	82
Stage 1	-	-	-	-	-	-	147	147	-	91	91	-
Stage 2	-	-	-	-	-	-	112	93	-	150	151	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1514	-	-	1535	-	-	694	661	1002	713	660	978
Stage 1	-	-	-	-	-	-	856	775	-	916	820	-
Stage 2	-	-	-	-	-	-	893	818	-	853	772	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1511	-	-	1534	-	-	645	638	1001	689	637	976
Mov Cap-2 Maneuver	-	-	-	-	-	-	645	638	-	689	637	-
Stage 1	-	-	-	-	-	-	830	752	-	888	816	-
Stage 2	-	-	-	-	-	-	849	814	-	821	749	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.9	0.4	10	9.1
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	728	1511	-	-	1534	-	-	927
HCM Lane V/C Ratio	0.012	0.028	-	-	0.003	-	-	0.05
HCM Control Delay (s)	10	7.5	0	-	7.4	0	-	9.1
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.2

County of San Mateo - Planning and Building Department

ATTACHMENT F

COUNTY OF SAN MATEO
PLANNING AND BUILDING

455 County Center, 2nd Floor
Redwood City, CA 94063
650-599-7310 T
www.planning.smcgov.org

PROJECT FILE

August 21, 2017

Synapse School
Jim Eagan
3375 Edison Way
Menlo Park, CA 94025

Dear Mr. Eagan:

Subject:	**LETTER OF DECISION**
File No.:	PLN2014-00295
Location:	3375, 3355, 3345, 3425 Edison Way, North Fair Oaks
Assessor's Parcel Nos.:	060-042-260 and 060-042-240

On August 9, 2017 the San Mateo County Planning Commission considered a Non-Conforming Use Permit, pursuant to Section 6137 of the San Mateo County Zoning Regulations, and adoption of a Mitigated Negative Declaration, pursuant to the California Environmental Quality Act (CEQA), to expand the existing Synapse School facility, located at 3375 Edison Way, into the existing neighboring buildings at 3355, 3345, and 3425 Edison Way in the unincorporated area of North Fair Oaks. The Non-Conforming Use Permit includes the request for an off-street parking exception to reduce the number of required on-site parking spaces from 144 spaces to 128 spaces.

Based on information provided by staff and evidence presented at the hearing, the Planning Commission adopted the Mitigated Negative Declaration and approved the Non-Conforming Use Permit, County File Number PLN 2014-00295, by making the required findings and adopting the conditions of approval in Attachment A.

Any interested party aggrieved by the determination of the Planning Commission has the right of appeal to the Board of Supervisors within ten (10) business days from such date of determination. The appeal period for this matter will end at **5:00 p.m.** on **August 23, 2017.**

Please direct any questions regarding this matter to Project Planner Summer Burlison at 650-363-1815 or sburlison@smcgov.org.

Sincerely,

Janneth Lujan
Planning Commission Secretary

cc: Department of Public Works
Environmental Health Department
Building Inspection Department
Planning Director, City of Redwood City
Menlo Park Fire Department
Fair Oaks Sewer Maintenance District
Anthony Zanette
North Fair Oaks Community Council

Attachment A

County of San Mateo
Planning and Building Department

FINDINGS AND CONDITIONS OF APPROVAL

Permit or Project File Number: PLN 2014-00295 Hearing Date: August 9, 2017

Prepared By: Summer Burlison
Project Planner

Adopted By: Planning Commission

FINDINGS

Regarding the Environmental Review, Found:

1. That the Initial Study and Mitigated Negative Declaration are complete, correct and adequate and prepared in accordance with the California Environmental Quality Act (CEQA) and applicable State and County Guidelines. An Initial Study and a Mitigated Negative Declaration were prepared and issued with a public review period from March 30, 2017 to April 18, 2017.

2. That, on the basis of the Initial Study, comments received hereto, and testimony presented and considered at the public hearing, there is no substantial evidence that the project will have a significant effect on the environment. The Initial Study and Mitigated Negative Declaration identify potential significant impacts to air quality, hazards and hazardous materials, land use and planning, transportation and traffic, and utilities and service systems. The mitigation measures contained in the Mitigated Negative Declaration have been included as conditions of approval in this attachment. As proposed and mitigated, the project would will not result in any significant environmental impacts.

3. That the mitigation measures identified in the Mitigated Negative Declaration, agreed to by the applicant, placed as conditions on the project, and identified as part of this public hearing, have been incorporated as conditions of project approval.

4. That the Initial Study and Mitigated Negative Declaration reflect the independent judgment of the County.

5. That Mitigation Measure 4 (morning peak hour trip cap), as recommended in the Mitigated Negative Declaration, is equivalently effective at mitigating traffic-related impacts at Middlefield Road/5th Avenue and Middlefield Road/2nd Avenue as Mitigation Measure 8 (staggered school schedule), because the morning peak hour trip cap (Mitigation Measure 4) will achieve the same trip reduction as the staggered school

schedule (Mitigation Measure 8) for these two intersections; and because Mitigation Measure 4 will not cause any potentially significant effect on the environment. Therefore, pursuant to Section 15074.1 of the California Environmental Quality Act (CEQA) Guidelines, Mitigation Measure 8 is eliminated and substituted for by Mitigation Measure 4.

Regarding the Non-Conforming Use Permit, Found:

6. That the establishment, maintenance, and/or conducting of the use will not, under the circumstances of the particular case, result in a significant adverse impact to coastal resources, or be detrimental to the public welfare or injurious to property or improvements in said neighborhood as the school is not proposing any significant operational changes to their current daily operation as a K-8 educational facility, mitigation measures are included as conditions of approval to reduce any traffic-related impacts to a less than significant level for the area, and a majority of the school activities will continue to be conducted indoors so as to not result in excessive noise levels.

   Additionally, given existing parking constraints in the area, surrounding residential parcels, and the existing built-out site conditions, there is no available space within the project site or within 1,000 feet of the project site to accommodate an additional 16 parking spaces for the school's use. However, the school is not expected to generate much parking demand beyond staff and occasional visitors (including parents) as the school will remain kindergarten to 8th grade (K-8), thus not generating any student demand for parking spaces and is sufficient to serve the school's total staff of 58 at full student capacity (260 students). Therefore, the existing off-street parking facilities, as proposed, are as nearly in compliance with the requirements as are reasonable possible and the conducting of the school with 128 off-street parking spaces will not be detrimental to the public welfare or injurious to property or improvements in the neighborhood.

CONDITIONS OF APPROVAL

Current Planning Section

1. The approval applies only to the proposal as described in this report and materials submitted for review and approval by the Planning Commission on August 9, 2017. The Community Development Director may approve minor revisions or modifications to the project if they are found to be consistent with the intent of, and in substantial conformance with, this approval.

2. Within one (1) year from the date of final approval of the Non-Conforming Use Permit, a valid building permit shall be issued and a completed inspection (to the satisfaction of the Building Inspection Section) shall have occurred within 180 days of its issuance, or the Non-Conforming Use Permit approval becomes null and void. Any extension of time shall require the submittal of a written request for permit extension and payment of applicable extension fees sixty (60) days prior to this one (1) year expiration date.

3. The Non-Conforming Use Permit shall be valid for five (5) years from the date of final approval, and shall expire on August 9, 2022. The applicant shall apply for renewal of the Use Permit, and pay applicable renewal fees six (6) months prior to expiration, if continuation of the use is desired. Any change in use shall be required to comply with applicable zoning regulations for this district.

4. Any change in use or intensity not already approved shall require an amendment to the use permit. Amendment to this use permit requires an application for amendment, payment of applicable fees, and consideration at a public hearing.

5. Within four (4) business days of the final approval date for this project, the applicant shall submit an environmental filing fee of $2,216.25, as required under Fish and Game Code Section 711.4, plus a $50.00 recording fee. Thus, the applicant shall submit a check in the total amount of $2,266.25, made payable to "San Mateo County Clerk," to the project planner to file with the Notice of Determination. Please be aware that the Department of Fish and Game environmental filing fee increases starting the 1st day of each new calendar year (i.e., January 1, 2017). The fee amount due is based on the date of payment of the fees.

6. The applicant shall obtain a building permit prior to the start of any tenant improvement work on-site.

7. The project shall comply with all development standards and performance standards of the applicable M-1/Edison/NFO Zoning District.

8. An Underground Service Alert (USA) of the area to mark where the Alameda Pipeline is located is required prior to issuance of a building permit. If the proposed project involves any utility crossing the Alameda Pipeline on Edison Way, then the applicant shall be required to complete the San Francisco Public Utilities Commission's (SFPUC) project review process to address any utility crossing issues early in the design phase and to avoid any unnecessary delays. Information about SFPUC's project review committee can be found at the following link: http://www.sfwater.org/index.aspx?page=450.

9. Noise sources associated with demolition, construction, repair, remodeling, or grading of any real property shall be limited to the hours from 7:00 a.m. to 6:00 p.m. weekdays and 9:00 a.m. to 5:00 p.m. Saturdays. Said activities are prohibited on Sundays, Thanksgiving, and Christmas (San Mateo Ordinance Code Section 4.88.360). Noise levels associated with the approved use shall not exceed the limitations set forth in the County Noise Ordinance and/or Performance Standards of the M-1/Edison/NFO Zoning District.

10. As part of the building permit submittal, the applicant shall clearly identify any proposed noise reducing measures, including but not limited to, living wall areas, artificial turf areas, location of sound blankets, and new tree plantings.

Mitigation Measures from the Mitigated Negative Declaration (changes made to the mitigation measures as presented in the Mitigated Negative Declaration are shown in strike-through and underline format):

11. **Mitigation Measure 1:** Pursuant to the Bay Area Air Quality Management District's CEQA Guidelines (May 2011), the following Air Quality Best Management Practices shall be implemented throughout the duration of construction-related activities on the project site:

    a. Idling times shall be minimized either by shutting equipment or vehicles off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485, of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

    b. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications.

    c. Minimize the idling time of diesel powered construction equipment to two minutes.

12. **Mitigation Measure 2:** All staff members who drive to the school shall be required to park in the school's on-site parking lot.

13. **Mitigation Measure 3:** All 128 on-site parking spaces shall be appropriately striped. Striping marks shall be maintained in a clear and visible manner so that they are easily recognizable to drivers.

14. **Mitigation Measure 4:** Normal operation of the school shall not exceed 275 morning peak hour trips. The morning peak hour is defined as the highest one-hour period between 7:00 a.m. - 9:00 a.m. during which the maximum traffic generated by the school occurs.

    The applicant shall retain a third-party traffic consultant to count the trip generation of the school, which would include counting the school driveways plus counting any school-related traffic that is dropping off students along Edison Way or any of its cross-streets. The third-party consultant will conduct the counts over three (3) weekdays (a Tuesday, Wednesday, and/or Thursday) in October and March of each school year, excluding scheduled school holidays. The trip count shall be the average of the three weekday counts. Concurrent with the trip counts, the third-party traffic consultant shall conduct a queuing analysis for on-street queuing due to driveway back-up at the designated on-site pick-up/
    drop-off points for the school. The data from the traffic counts shall be submitted to the

County of San Mateo Traffic Services and the Current Planning Section of the County of San Mateo Planning and Building Department in a report for review and acceptance. The County may also choose to conduct its own monitoring if desired.

If the monitoring shows that the trip cap is exceeded, then the applicant shall have 30 days to prepare and submit a Transportation Demand Management (TDM) Program that incorporates measures to reduce the number of trips below the trip cap, and shall have an additional 30 days to implement the TDM Program in order to bring the site into compliance with the trip cap. Measures included in the TDM Program may include, but shall not be limited to, staggering start times, adding shuttle buses, initiating a carpooling program, and offering staff incentives to take alternative transportation. A subsequent monitoring will be conducted by the County 30 days following implementation of the TDM Program. If the subsequent monitoring indicates that the site still exceeds the trip cap, then the applicant may need to resort to reducing student enrollment accordingly to bring the site into compliance with the trip cap. Non-compliance evidenced by the subsequent monitoring may also result in review of the use permit by the Planning Commission.

15. **Mitigation Measure 5:** The applicant shall provide, upon request by the County, shuttle bus logs for all shuttle buses serving the school. The shuttle logs shall show the number of students dropped off and picked up at the school site each day.

16. **Mitigation Measure 6:** The maximum student enrollment shall not exceed 260 students. The applicant shall submit an annual report stating the total number of students and staff attending or working at the school prior to the beginning of each school year. Any increase in student enrollment beyond 260 students shall require an amendment to the Non-Conforming Use Permit and shall require an updated Traffic Impact Analysis.

17. **Mitigation Measure 7:** The applicant shall apply for an encroachment permit to install a left-turn refuge lane on Marsh Road, within the current roadway width, to improve the intersection operation. Plans shall be submitted to the Department of Public Works Traffic Services for review and approval.

~~18. **Mitigation Measure 8:** The school shall stagger the start and end times by one hour with 85 students starting one hour earlier during the 7:00 a.m. - 8:00 a.m. hour and ending during the 2:00 p.m. - 3:00 p.m. hour to reduce AM peak hour trips.~~

18. **Mitigation Measure 9:** The school shall provide designated staff or parents to assist in the on-site management of drop-off and pick-up operations.

Menlo Park Fire Protection District

19. The project must comply with all applicable California Building and Fire Codes, and any applicable local amendments.

20. A final fire inspection is required prior to the final building inspection for any associated building permits. Contact Menlo Park Fire Protection District at 650/688-8400 to schedule a final fire inspection. A 48-HOUR NOTICE IS REQUIRED FOR ALL INSPECTIONS.

Fair Oaks Sewer Maintenance District

21. The applicant shall submit building plans to the Fair Oaks Sewer Maintenance District (District) for review when the building permit application is submitted. The plans shall indicate the location of the existing and proposed sewer laterals to the Sewer District main.

22. The District will allow the proposed connection provided all associated fees are paid. The Fair Oaks Sewer Maintenance District may require payment of additional sewer connection fees and sewage treatment capacity fees.

23. The existing Fair Oaks Sewer Maintenance District mains downstream of the proposed lateral connection shall be evaluated to determine if there is sufficient capacity to accommodate the additional sewage demand of the proposed development. The evaluation and design of any resulting upgrades to the District's facilities must be completed and approved by the District prior to final approval of the building plans.

SB:pac - SSBBB0213_WPU.DOCX

County of San Mateo - Planning and Building Department

ATTACHMENT G

ROBERT J. LANZONE
JEAN B. SAVAREE
GREGORY J. RUBENS
CAMAS J. STEINMETZ
KAI RUESS
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Of Counsel:
NELLIE ANCEL
JOAN A. BORGER

May 12, 2021

Summer Burlison
San Mateo County
Planning and Building Division
sburlison@smcgov.org

Re: Synapse School Parking Reduction Justification

Via: Email

Dear Ms. Burlison:

This letter supplements the Use Permit Amendment application for Synapse School located at 3375 Edison Way in Menlo Park and supersedes and replaces the earlier letter to you regarding the above subject matter from our architect Stephanie de Raynal.

A. Parking Reduction Request

In connection with its Use Permit Amendment application, Synapse School is requesting a parking exception pursuant to Section 6570.9 of the San Mateo County Zoning Ordinance to reduce the number of on-site parking spaces to 60 spaces with 46 parking spaces in the main parking lot and 14 parking spaces in the parking lot east of Building 4. Based on a parking demand study conducted by Hexagon Transportation Consultants, Inc. (Hexagon), providing a total of 60 parking spaces would adequately accommodate parking demand on-site for the proposed increased enrollment of 310 students. Providing any more parking on this previously developed site would sacrifice precious outdoor and play space necessary for the growth and development of the K-8 grade students. Accordingly, the finding of extenuating and/or unusual circumstances under Section 6570.9 can and should be made to justify granting the requested parking reduction.

B. Background; Current Conditions

As part of its existing Use Permit approval (County File Number PLN 2014-00295), Hexagon was granted a parking exception to reduce the number of required on-site parking spaces from the 144 spaces that were calculated (see below)to 128 spaces with 44 of these spaces designated on turf between Buildings 3 and 4. Because the main parking lot was able to accommodate all of the school's parking demand (as demonstrated by Hexagon Transportation Consultant Inc.'s study discussed below), the parking spaces between Buildings 3 and 4 and east of Building 4 were seldom used. The turfed area between Buildings 3 and 4 is currently used as outdoor classrooms under temporary tents to comply with Covid-19 protocol, as well as an outdoor educational garden. Accordingly, the school currently maintains 84 total striped parking spaces on site with 53 parking spaces in the main parking lot, 26 parking spaces in the faculty parking lot east of Building 4, and 5 parking spaces between Buildings 3 and 4.

As discussed below, only a fraction of the 84 striped spaces were ever utilized. During drop-off and pick-up periods, most of the Kindergarten through 8th grade parents do not park their cars. They utilize the traffic loop which enables them to quickly enter and exit the parking lots without queuing impacts. Additionally, the shuttle service offered by Synapse during pre-covid times further reduced parking demand by reducing the number of students being dropped off at the school by 87 students (33% of the enrollment capacity) and reducing the number of students being picked up at school by 36 students (14% of the enrollment capacity). These reductions are expected to resume once shuttle service resumes post-Covid.

C. County Parking Calculations – Existing Use Permit

As stated on page 6 of the staff report dated August 9, 2017 https://planning.smcgov.org/sites/planning.smcgov.org/files/events/PLN2014-00295_PCC20170809_SRT%20-%20w.Attachments.pdf) the parking requirement for the existing Use Permit was calculated as follows:

County Zoning Regulations for Off-Street Parking				
Building	**Use**	**Measuring Units**	**Parking Factor**	**Required Spaces**
3345 Edison Way	Office Areas	269 sq. ft.	1 / 200 sq. ft.	2
	Classrooms	2	1 / classroom	2
	Extended Classroom/Lab Space	13,002 sq. ft.	1 / 2,000 sq. ft.	7
Subtotal:				11
3355 Edison Way	Office Areas	1,641 sq. ft.	1 / 200 sq. ft.	8
	Classrooms	4	1 / classroom	4
	Extended Classroom/Lab Space	4,493 sq. ft.	1 / 2,000 sq. ft.	3
	Multi-Use Space	4,954 sq. ft.	1 / 100 sq. ft.	50
Subtotal:				65
3375 Edison Way	Office Areas	1,159 sq. ft.	1 / 200 sq. ft.	6
	Classrooms	19	1 / classroom	19
	Extended Classroom/Open Area	1,110 sq. ft.	1 / 2,000 sq. ft.	1
	Multi-Use Space	827 sq. ft.	1 / 100 sq. ft.	9
Subtotal:				35
3425 Edison Way	Office Areas	1,913 sq. ft.	1 / 200 sq. ft.	10
	Classrooms	9	1 / classroom	9
	Multi-Use Space	1,340 sq. ft.	1 / 100 sq. ft.	14
Subtotal:				33
Total Parking Required				**144**
Total Parking Provided				128
Parking Deficiency				(16)

The staff report explains that the above calculations were based on Chapter 3 of the Zoning Ordinance. Below are the applicable provisions we assume were used to derive the above calculations:

SECTION 6119. PARKING SPACES REQUIRED. The number of off-street parking spaces required shall be set forth in the following table:

Schools	1 for each classroom, plus 1 for each 100 sq. ft. in the Auditorium, or any space so used.

Medical or Dental Clinics, Banks, Business Offices, Professional Offices	1 for each 200 sq. ft. of floor area.

All Uses Not Enumerated Above Which Are Permitted in "M" Districts	1 space for each 2 employees on largest shift; in no case less than 1 space for each 2,000 sq. ft. of floor area.

Note however that because the use granted under the Use Permit was for a school, and the office and additional extended classroom/lab/open space is ancillary to and for the support of the school use, we question whether the additional parking calculated for the office space and extended classroom/lab/open space really should have been included in the calculations. If these parking spaces were excluded as we believe they should have been, the total count would have been 107 spaces (not 144 spaces). Accordingly, there would have been no parking deficiency, the parking reduction of 16 spaces would not have been required, and the 127 parking spaces would have been 20 spaces in excess of the 107-space parking requirement.

D. <u>County Parking Calculations – Proposed Use Permit Amendment</u>

Although the school is not proposing to add any additional physical space as part of its Use Permit Amendment, the required parking calculations have almost doubled due to changes in the Zoning Ordinance following the original Use Permit approval in 2017. On July 23, 2019, Sections 6277 - 6277.7 of CHAPTER 17.2 "M-1/EDISON/NFO" DISTRICT (MIXED-USE INDUSTRIAL/EDISON/ NORTH FAIR OAKS DISTRICT were amended by Ordinance No. 4815 on July 23, 2019. The applicable provisions are excerpted below:

<u>CHAPTER 17.2 "M-1/EDISON/NFO" DISTRICT (MIXED-USE INDUSTRIAL/EDISON/ NORTH FAIR OAKS DISTRICT)</u>

<u>SECTION 6277.7. PARKING</u>. Parking Standards shall be as specified in Section 6276.7. Alternative parking approaches, including off-site and shared parking, are allowed subject to the standards and conditions described in Section 6570.9, "Alternative Parking Approaches."

SECTION 6276.7. PARKING. Projects shall provide parking as required by Chapter 3 of the Zoning Regulations, except as provided below.

1. Section 6119, Parking Spaces Required. Section 6119 shall be replaced by Table 1 in this Section 6276.7, which sets forth the minimum number of off-street parking spaces required. Parking spaces required by Table 1 may also be modified by the amounts set forth in the Shared Parking and Off-Site Parking regulations in this Chapter. For uses not listed in Table 1, the provisions of Section 6119 shall apply.

TABLE 1

REQUIRED PARKING

N.	**INSTITUTIONAL AND OTHER**	
	1. All uses listed under the "Institutional Use Classification" in Section 6576.3, Uses	1 space per 400 sq. ft.

Note that the above table references "Section 6576.3, Uses" for the "uses listed under the Institutional Use Classification." However, no such section exists in the Zoning Code. Instead, the below definitions of "Institutional Facilities" and "Institutional Use" elsewhere in the Zoning Ordinance were found which include "schools":

SECTION 6277.2. DEFINITIONS.

17. Institutional Facilities

Schools, religious institutions (facilities or meeting places used for worship or religious instruction including, but not limited to, churches, synagogues, mosques, and temples), municipal buildings, hospitals, or permitted uses of a similar nature.

SECTION 6102. DEFINITIONS. For the purpose of this Part, certain terms used herein are defined as follows:

SECTION 6102.49.1. INSTITUTIONAL USE. Any school, hospital or public works facility.

Applying the 1 space / 400 sq. ft. for institutional uses to the existing school's approximately 76,600 square feet of floor area results in a parking requirement of 192 spaces. This is more than 3 times the parking demand that will be generated by the school based on Hexagon's parking demand study discussed further below.

Schools simply do not generate the same parking demand as the other "institutional uses" such as hospitals, religious institutions, municipal buildings, and public works facilities. Users of these other institutional uses generally drive and park at the institution for the duration of their use unlike K-8 schools such as Synapse who are dropped off and then picked up, typically at the entrance of the school without parking at all. Further, unlike institutions where the number of employees is typically a factor of the available square footage, the number of teachers and staff are a factor of the number of classrooms or enrolled students at the school, not the square footage of the school. Applying the parking requirement for other institutional uses to schools simply does not capture the unique parking demand of schools.

E. Hexagon Parking Demand Study

Based on parking demand counts by Hexagon conducted in November 2019, the maximum number of vehicles parked on site ranged from 37 to 50 vehicles between 8:00 AM and 9:00 AM. The school enrollment was 260 students in November 2019 when the parking counts were conducted. With the proposed increased enrollment from 260 to 310 students (a 19.2% increase), the projected parking demand would range between 44 and 60 spaces (an 19.2% increase in the 37-50 vehicles observed parked on site).

Hexagon anticipated that parents of the 30 proposed preschool students would either park in the loading area in front of Building 2 or park in front of Buildings 1 and 2. Because most parents drop K-8 students without parking, there would be enough parking spaces for the pre-school in the morning. In the afternoon, the pre-school students would be dismissed more than a half hour before the K-8 students, so the parking demand would not overlap. Based on these observations and the anticipated pre-school operations, Hexagon concluded that the proposed 60 parking spaces would be sufficient to accommodate the school's anticipated parking demand.

F. <u>Conclusion</u>

In conclusion and as discussed in detail above, the following extenuating and unusual circumstances support the requested parking reduction to 60 total spaces: (1) the parking demand of schools is unique from other institutional uses; (2) the parking demand of Synapse school in particular (60 spaces) would generate less than one-third of the parking spaces that otherwise are required by the code (192 spaces); and (3) the existing constraints of the previously developed site do not allow for more parking without sacrificing valuable outdoor space that is essential for K-8 students growth and development. Granting the proposed parking reduction will result in a parking capacity that much more accurately reflects the actual parking demand at Synapse school.

Sincerely,

Camas Steinmetz

County of San Mateo - Planning and Building Department

ATTACHMENT H

San Mateo County
Planning and Building
455 County Center 2nd floor
Redwood City CA 94063

* Received on Jan. 30, 2022 this notice

January 31, 2022 (22)

Dear Ms. Kanoa Kelley in refere ace to your letter dated January 10, 22 regarding: Aviso de enmienda a un permisude uso no conforme" I'm soliciting under PLN 2014-00295. The allowed use at 3355 Edison Way, @ North Fair Oaks, a non conforming permit.

* I object to increase the number of students to 310 from 260.

It is derrimental to me having to park two blocks away from my house at 594 6th Avenue, Menlo Park CA 94026, because the School Employees park on my area all day. I objected to the blocking of the parking area at that School, to allow for recreational use and an area of load and unload of students by their parents a series of parkings are used for other purposes as well living the required 60 currently allowed where it is needed. 144.

I'm aware that I complained to your Dept. 5 months ago, about this problem and nothing was done.

your ~~Dept~~ sent me to A phone that His
Ansuering Serice. And I Have the same
Problem Again since. I'm parking off
Street one to Two Blocks Away. I'm
75 years old And it is A Harship And
Detrimental to my Health.

Be Aware that the original use of these
Buildings were By use warehouses.
And that the current use does not
Provide for the proper function of
The services As School.

During Early Morning the Street is
narrow And The people that Bring And Drop
Their Kids. gets Jammed And Block
The flow of That narrow street And
is A long line for over 20 cars At the
same time long for over 30 minutes.

I happend to take my grands children to
School And have to travel Against
Traffic just to get through that mess.
I seen this problem since I moved here.
Again. please come And see for your
self the issue.

· IF YOU DO APPROVED THIS NON CONFORMING USE PERMIT. YOU ARE NOT RIGHT.

WHY NOT : ALLOW THE USE @ THE OPEN SPACE @ THE END OF MARSH RD. THAT, USE TO BE A DUMP THAT CLOSED IN THE 70's. BY NOW IT IS THE RIGH PLACE FOR A SCHOOL LIKE THIS. MOVE YOUR TAX MONEY FROM THE MARKET FUMPS OR BARROW ON IT TO BUILD THEM A FACILITY THAT CONFORMS W/ ALL THE REQUIREMENTS,

AND.
BE AWARE THAT THESE GROUPS OF CLASSES GO IN TO THE SPORTS CENTER FACILITIES THROUG A NARROW STREET THAT HAS NO SIDE WALKS AND IT IS EXPOSED TO THE BUSY TRAFFIC THAT THE COMPLEX NEXTDOOR USES OVER 200 CARS PASS THROUGH THERE, THERE ARE NO STREET SPEED SIGNS DICTATING THE SCHOOL WARNING AND ALSO THE FIRE MARSHALL REQUIREMENTS THAT WOULD NOT ALLOW A FIRE TRUCK THROUGH. STOP GIVING USE PERMITS TO NONE CONFORMING APPLICANTS, TRY "AN ENVIROMENTAL IMPACT REPORT"

ERNESTO BARRON
594 6TH AVE
MENLO PARK

CC: TO
F.D. &
C. SUPERVISORS

C.Hoshida

D.Dunham

3282 Edison Way,MP

Dear Jim,

Thank you for reaching out to your neighbors on Edison Way.

As I have said, I have heard some very positive things about Synapse School.Your mission of ," creating a community of change makers who impact the world in positive and authentic ways" is admirable.

It would be in keeping with your mission via a concrete act, to live this via the school's impact on the already crowded neighborhood parking issue. As you know, parking for residents is already difficult. Because economically, many of us have no choice but to have many family members living at one residence who have cars parked near their homes. This is not a choice for us.

If more cars are parked from Synapse overflow this will make parking for residents even more difficult. There have been incidences,recent and past when visitors or staff have parked in front of neighbor's houses so they were required to park further down Edison or park partially into my driveway which then made it difficult for me to get into my driveway.

There has been a limo parked in my driveway, a parent's SUV parked in my driveway so that my husband was not able to park his car there. There had been a meeting at your school and the driver said, "We had a meeting." With no apology as though she was entitled to park in people's driveways. Not what we need here and not a positive role model for children who are learning to impact the world in positive ways.

While the Hexagon Transport Consultants state that 60 parking spaces would be adequate, they do not live the daily impact of traffic during drop off and pick up time with the cars, children and parents sometimes coming on foot with a dense concentration of all these entities merging which makes it an unsafe situation in such a small area.

I recognize your valiant efforts to direct traffic during transition times . I have also seen cars turning left into the queue which then blocks traffic in either direction with the already formed queue which goes up to Reikes at times and the car turning left.

We neighbors have to go to work at a precise time .This congestion interferes with our ability to adhere to our schedules.

We request that you walk the talk of your mission and do not increase your enrollment or reduce the number of required parking spaces out of consideration and respect for your economically and culturally diverse neighbors .

Thank you ,

C.Hoshida and D.Dunham

re: SYNAPSE SCHOOL Non-Conforming Use Permit Application PLN 2014-00295

From: Chyerl Hoshida (chyerl2002@yahoo.com)

To: lkkelley@smcgov.org

Date: Monday, January 17, 2022, 04:29 PM PST

C. Hoshida
3282 Edison Way
MP,CA

Kanoa Kelley,

My husband and I are opposed to the the reduction of of required on-site parking spaces Also opposed to increase to increasing school enrollment from 260 to 310.

It is already unsafe when children ,parents, and cars are entering or leaving school. You can imagine that the congestion mixed with children, parents, and cars all merging at the same place is an accident ready to happen. You add residents who are trying to leave for work or return home during these high impact hours it is an unsafe and untenable situation.

There is already a lack of sufficient parking in our densely populated neighborhood. Synapse employees, parents, and visitors park in front of resident's homes so that residents are required to park away from their homes. there have been times when an SUV parked in my driveway and the driver said, "We had a meeting." There was no apology. Once there was a limo parked in the driveway. Sometimes drivers park half way in people's driveways in a rush.

Look at our street. You will see already insufficient parking for residents,and overflow from Reikes. We residents have economic challenges as reasons for having to live in this neighborhood for those of us who have been here before the spike in real estate. We did not move in here knowing there was going to be in a congested school zone.

Please consider the impact on the Edison Way residents and the safety of all involved.

Please deny the request to non-conforming use permit amendment.

More impact on the neighborhood with traffic , parking, pedestrians safety is not beneficial to anyone.

Thank you in advance for being responsive to the needs and safety of residents.

Chyerl Hoshida and David Dunham

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Date: Monday, January 17, 2022, 04:29 PM PST

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Chyerl Hoshida and David Dunham

Chyerl Hoshida

David Dunham