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 preschool 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 Α.

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

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.

Action

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. <u>Compliance with the Use Permit Findings</u>

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 biannual 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. <u>REVIEWING AGENCIES</u>

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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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. <u>Mitigation Measure 1</u>: 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. <u>Mitigation Measure 2</u>: All staff members who drive to the school shall be required to park in the school's on-site parking lot.
- 11. <u>Mitigation Measure 3</u>: All <u>60</u> 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. <u>Mitigation Measure 4</u>: 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. <u>Mitigation Measure 5</u>: 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. <u>Mitigation Measure 6</u>: 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. <u>Mitigation Measure 7</u>: 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. <u>Mitigation Measure 7</u>: 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.
- 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.

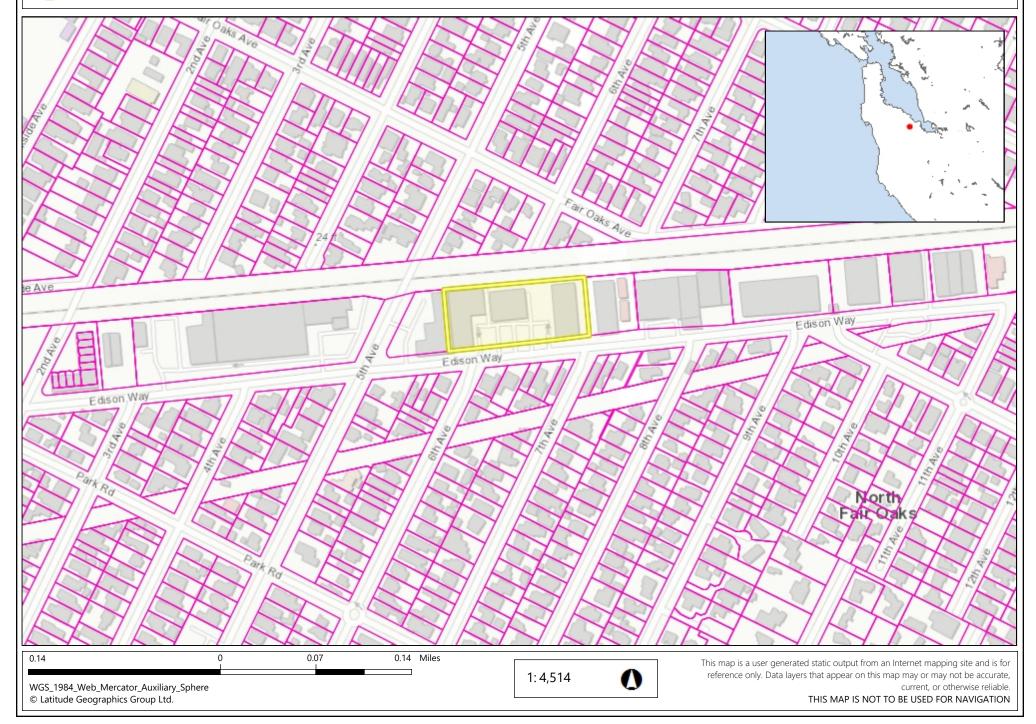
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County of San Mateo - Planning and Building Department

PLACHMENT



County San Mateo, CA



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County San Mateo, CA

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THIS MAP IS NOT TO BE USED FOR NAVIGATION



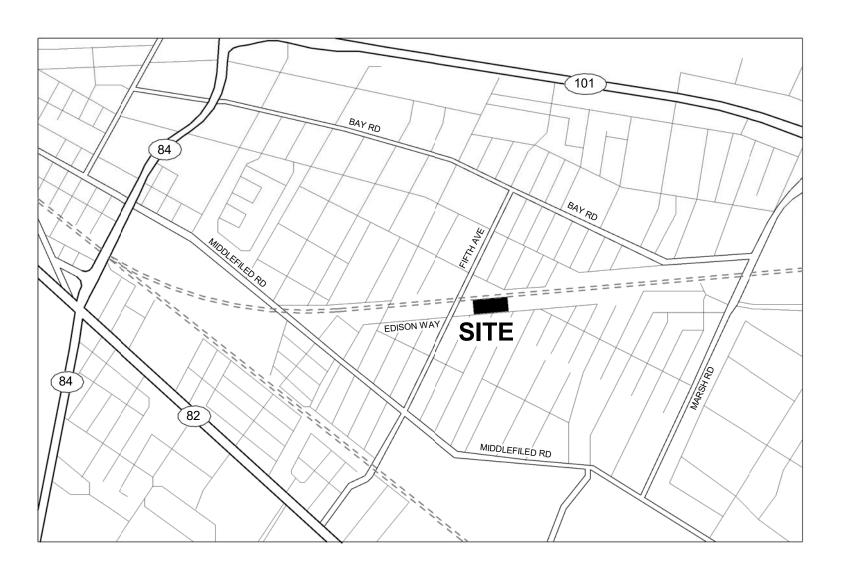
County of San Mateo - Planning and Building Department

U PLACHMENT

SYNAPSE SCHOOL RENOVATION

3375 EDISON WAY, MENLO PARK USE PERMIT AMENDMENT APPLICATION





1 LOCATION MAP

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

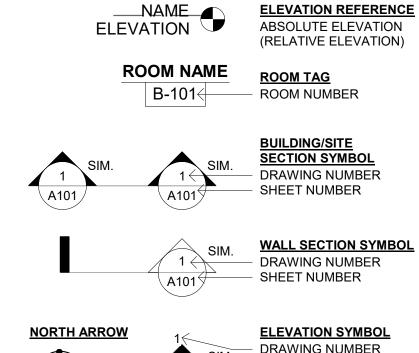
[BUILDING 3]
- CONSTRUCTION OF NEW INTERIOR WALLS AND DOORS TO CREATE PRE-KINDERGARTEN CLASSROOMS

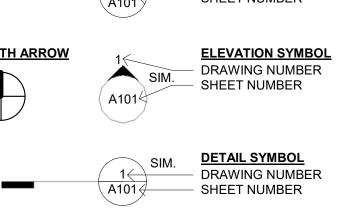
PROJECT LOCATION 3375 EDISON WAY

SYMBOLS

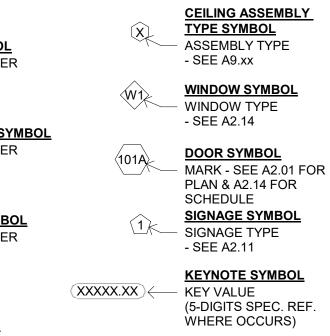
3375 EDISON WAY MENLO PARK, CA 94025

BUILDING INFORMATION





EQUIPMENT TYPE



SIGNAGE SYMBOL
SIGNAGE TYPE
- SEE A2.11

KEYNOTE SYMBOL
KEY VALUE
(5-DIGITS SPEC. REF.
WHERE OCCURS)

FINISH SYMBOL
FINISH CODE - SEE A2.11

FLOOR FINISH SYMBOL

FINISH CODE - SEE A2.11

PARTITION TYPE SYMBOL

STUD MARK - SEE A9.01

SEE A9.01

PARTITION CATEGORY - SEE

DETAIL NUMBER - SEE A9.01

- 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
- ALL MATERIALS TO BE INSTALLED ARE TO BE NEW. DO NOT REUSE REMOVED OR OTHERWISE DEMOLISHED MATERIALS UNLESS DIRECTED BY THE
- DIMENSIONS ARE TO FACE OF GWB OR GRID, U.O.N. GRID LINES CORRESPOND TO CENTER OF STUD OR COLUMN, U.O.N.

GENERAL NOTES



555 DeHaro Street, Suite 380

+ INTERIORS

- San Francisco, CA 94107 tel 415.487.6900
- fax **415.487.6909**

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

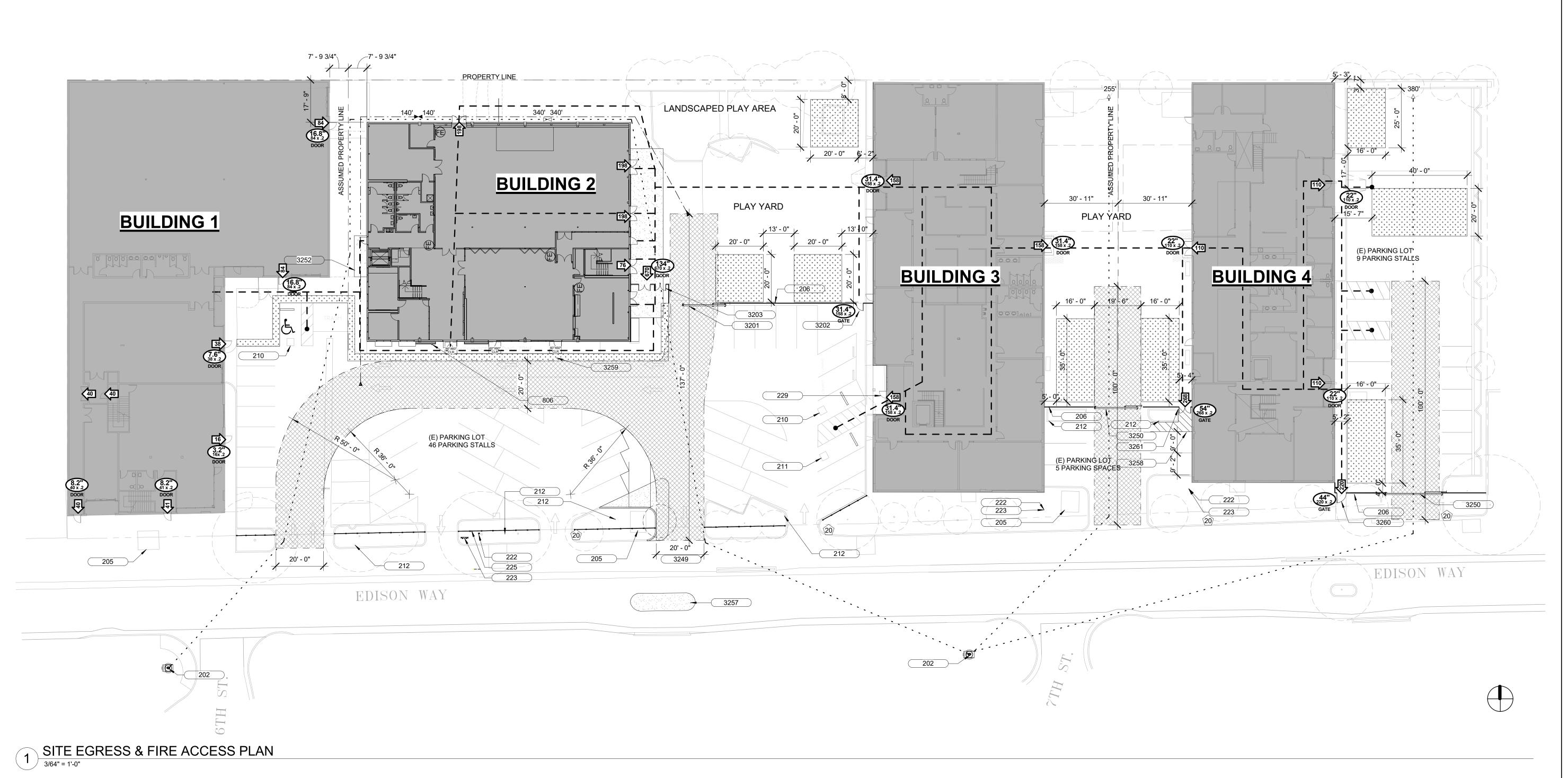
Date: 4/21/2021

Status: USE PERMIT APPL.

Project Number:

■ Sheet

A01





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

3355 EDISON WAY, MENLO PARK CA 94025

Consultants

Sheet Name

SITE EGRESS & FIRE **ACCESS PLAN**

SHEET NOTES KEYNOTE VALUE DESCRIPTION PARKING DEMAND SUMMARY (E) FIRE HYDRANT Parking demand as observed by Hexagon in November 2019: 37 - 50 stalls Student enrollment in 2019: 260 students (E) TRANSFORMER Revised student enrollment capacity: 310 students (19.2% increase) (E) CHAIN LINK FENCE Parking demand for revised student enrollment capacity: 44 - 60 stalls (E) VAN ACCESSIBLE PARKING SPACE (E) ACCESIBLE PARKING PARKING PROPOSED Building 1 & 2 parking lot: 46 stalls (E) PLANTER W 6" CURB Building 3 parking lot: 5 stalls (E) PIV Building 4 parking lot: 9 stalls (E) FDC Total parking stalls proposed: 60 stalls (E) CHECK VALVE (E) MAIN ACCESS/ ENTRANCE TO CAMPUS. EMERGENCY ACCESS KEY LOCK BOX, KNOX OR OTHER FIRE DEPARTMENT APPRO VERIFY LOCATION WITH FIRE MARSHAL 20" CLEAR WIDTH SLIDING CHAINLINK FIRE ACCESSS GATE W/ FD APPROVED LOCK / 3'-0" ACCESSIBLE CHAIN LINK GATE. PANIC HARDWARE. 6'-0" ACCESSIBLE CHAIN LINK GATE. PANIC HARDWARE. (N) 20'-0" MIN CLR FIRE ACCESS (E) CHAIN LINK SLIDING GATE (N) ELEVATED WALKWAY, S.C.D. (N) AC PAVING WHERE CONCRETE CURB AND PLANTER HAVE BEEN REMOVED IN F PARKING DEMAND SUMMARY (N) PAVEMENT STRIPING

(N) TRUNCATED DOME WARNING STRIP. 3'-0" MIN.

(N) 4'-0" ACCESSIBLE CHAIN LINK GATE. PANIC HARDWARE

(N) 5'-0" ACCESSIBLE CHAIN LINK GATE. PANIC HARDWARE

		FIRE HYDRANTS
	<+400'	DISTANCE FROM HYDR BUILDING PERIMETER; CFC 507.5.1
	▼ - 150'	HOSE DISTANCE FROM ACCESS ROAD OR LAN BUILDING PERIMETER; CFC 503.1.1
OVED EQUAL. K AND KNOX BOX.	(50	OCCUPANT LOAD AT POPATH
PUBLIC RIGHT OF	(XX') 99 x 2	MIN. EGRESS WIDTH: 32" MIN. @ DOORS 72" MIN. @ CORRID EGRESS WIDTH FACTO STAIRWAYS & (.2) AT O
		COMPONENTS OCCUPANT LOAD AT

LEGEND PROPERTY LINE FIRE HYDRANTS DISTANCE FROM HYDRANT TO - BUILDING PERIMETER; 600' MAX., CFC 507.5.1 CLR. CFC 503.2.1. HOSE DISTANCE FROM FIRE ACCESS ROAD OR LANE TO BUILDING PERIMETER;150' MAX., CFC 503.1.1 OCCUPANT LOAD AT POINT OF EGRESS PATH

32" MIN. @ DOORS (CBC 1010.1.1) 72" MIN. @ CORRIDORS (CBC 1020.2)

EGRESS WIDTH FACTOR: (.3) FOR

POINT OF EGRESS PATH

STAIRWAYS & (.2) AT OTHER EGRESS

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 ENTRANCE SIGN "B", PER THE MENLO PARK FIRE PROTECTION DISTRICT APPROVED FIRE LANE

ACCESSIBLE CLEARANCE - DIMENSIONS AS INDICATED . 2% MAX SLOPE ANY

(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: <u>3</u>
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.

Revisions

Revision 1

Revison 2

■ Sheet Information

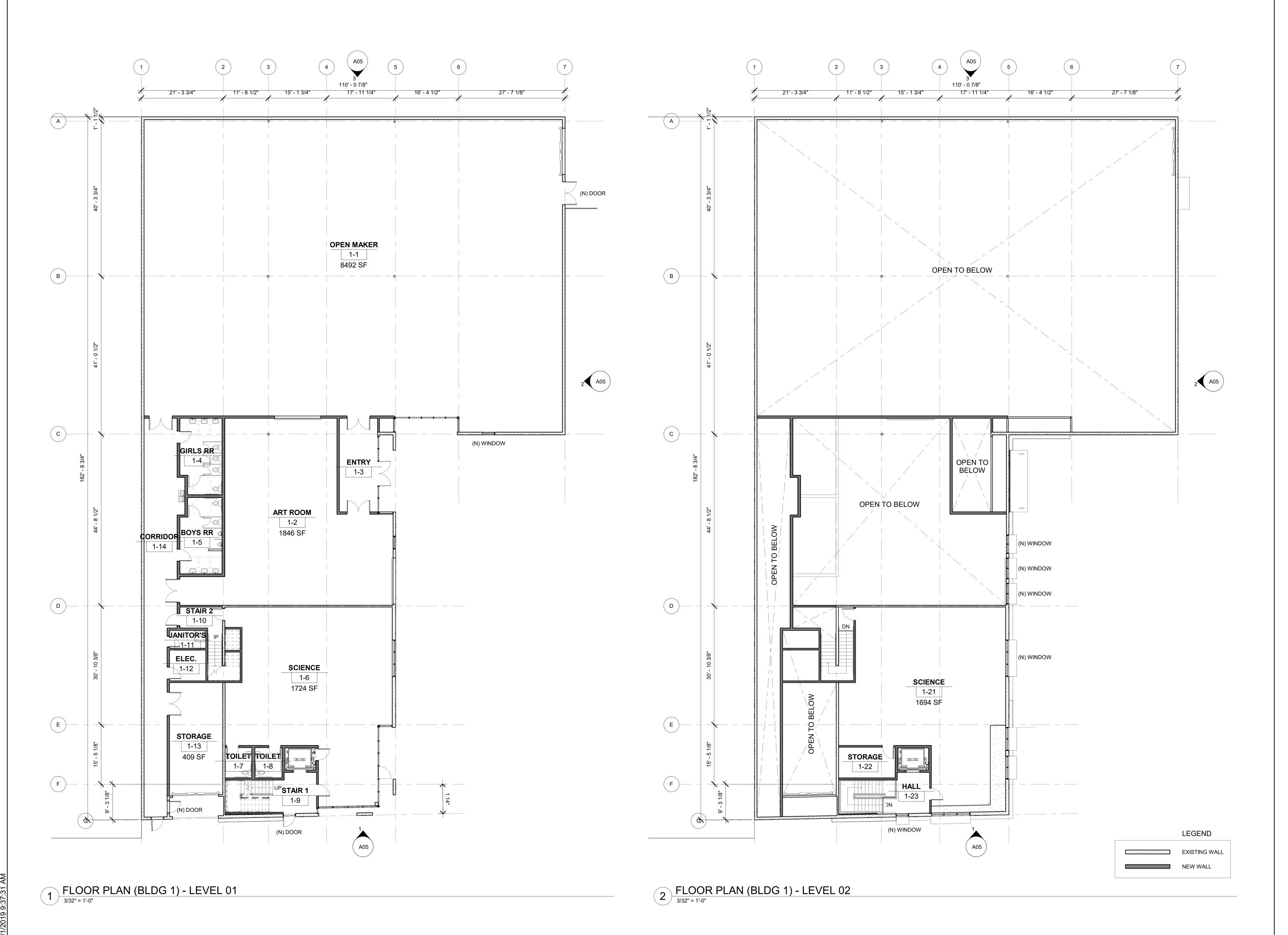
Drawing Scale: As indicated Drawn By:

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

6/8/2020

10/22/2020

Sheet





+ 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 1

■ Revisions

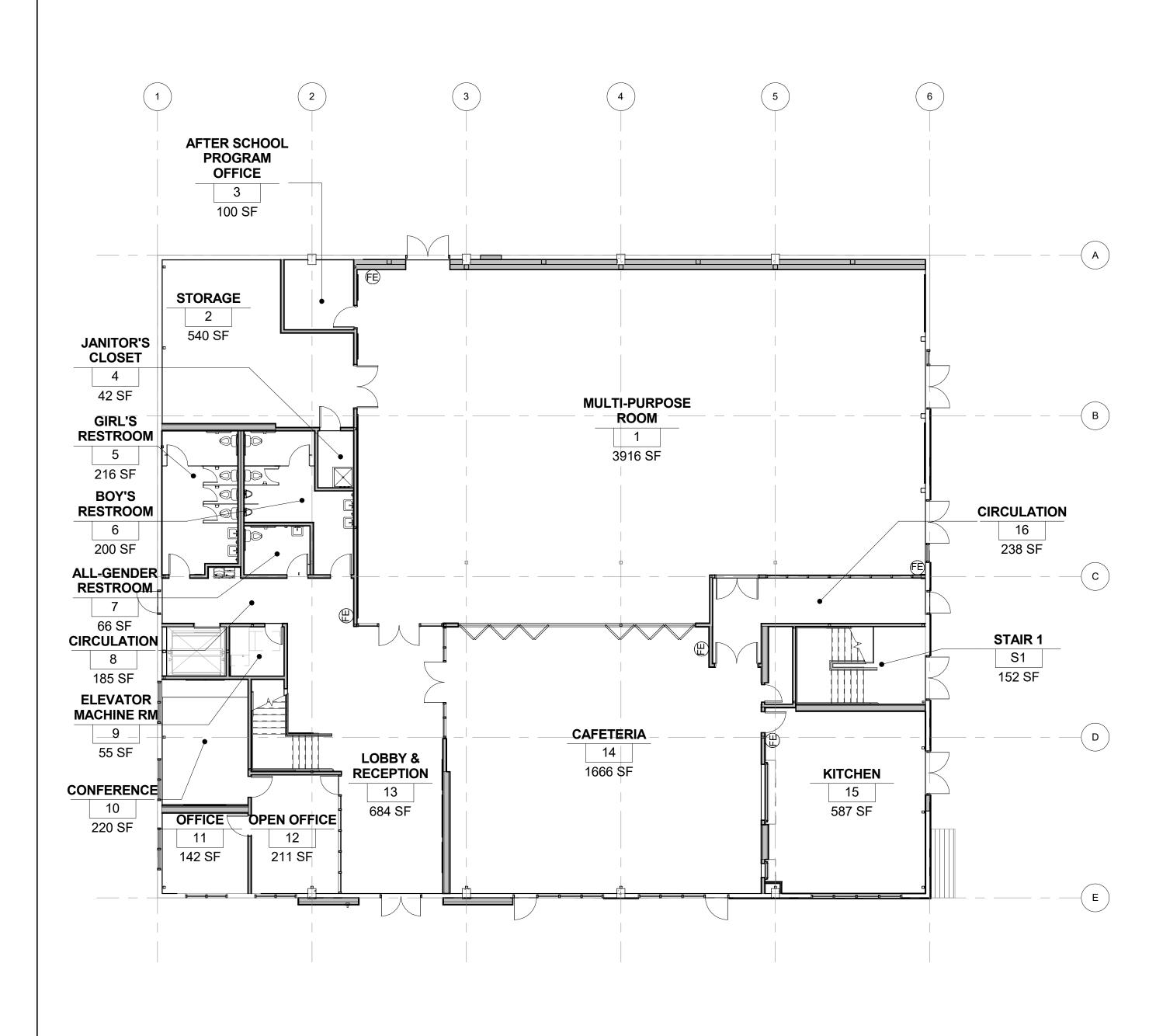
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Drawn By: Author

■ Project Information
Date:

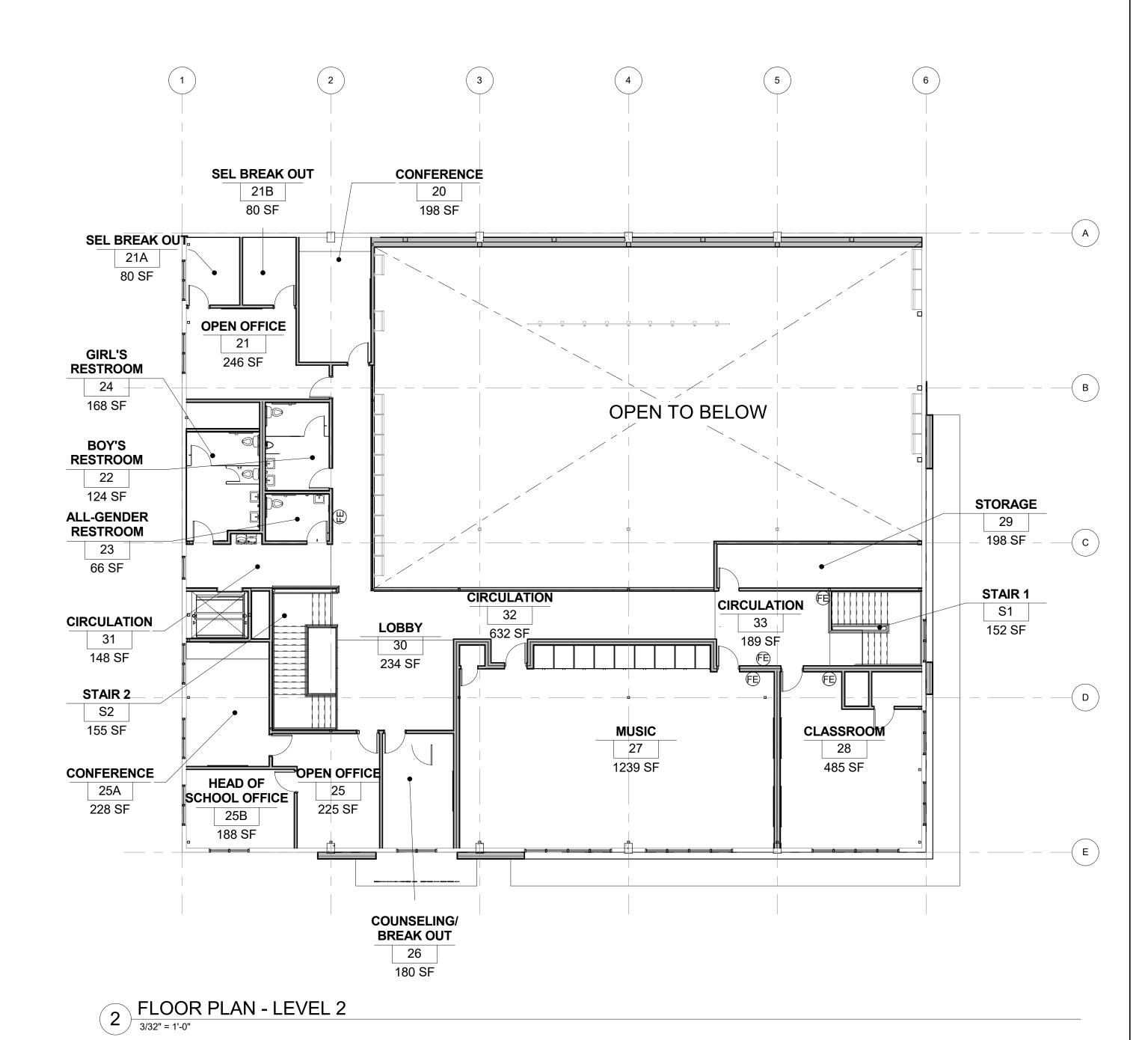
Date: 4/21/2021
Status: USE PERMIT APPL.
Project Number: 1902

Sheet

A03



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



<2^A

ARCHITECTURE

+ INTERIORS

444 DeHaro Street, Suite 220 San Francisco, CA 94107 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

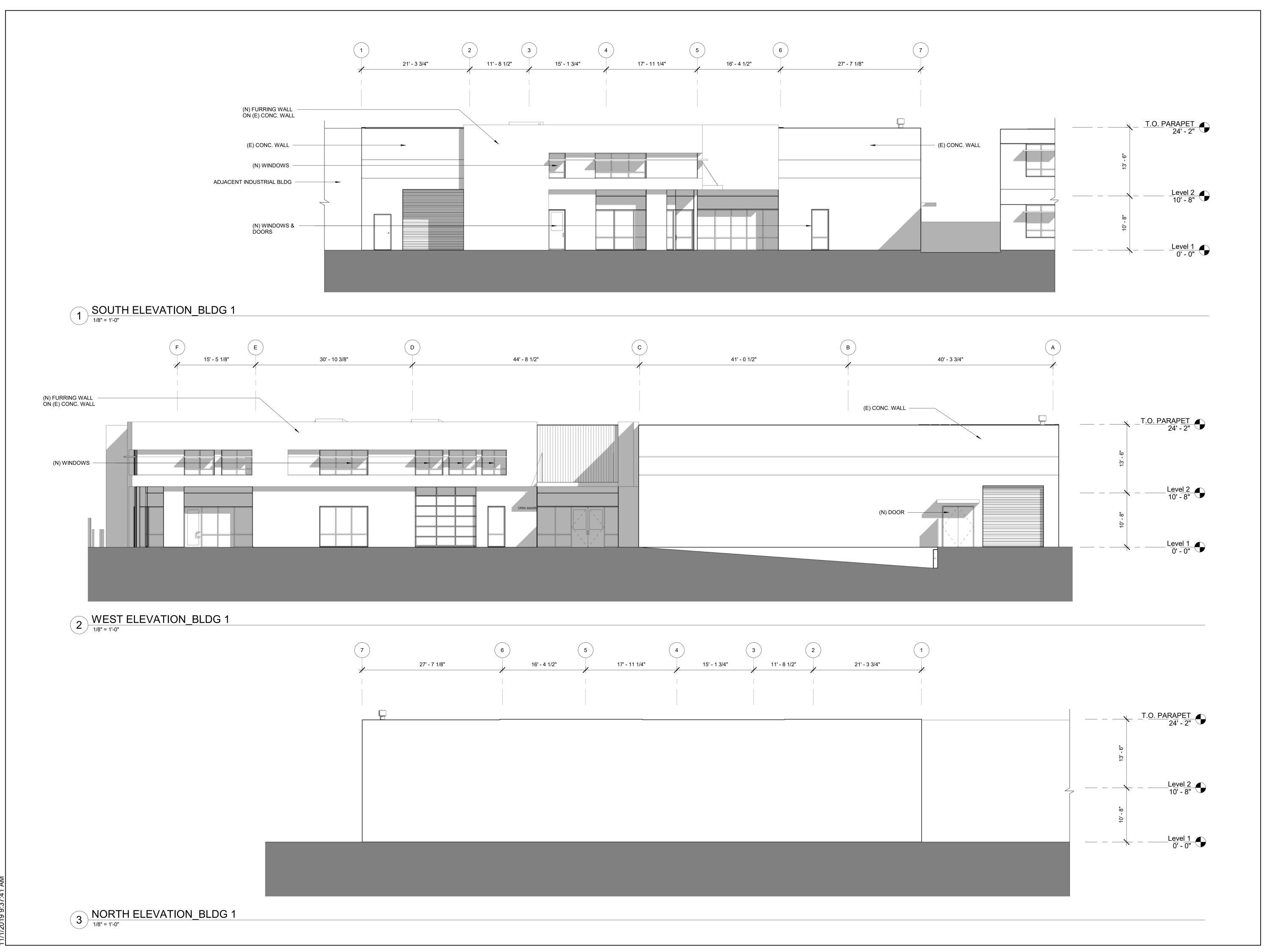
■ Project Information
Date: 1/30/2020
Status: USE PERMIT APPL.

Project Number:

Sheet

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\04





+ 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

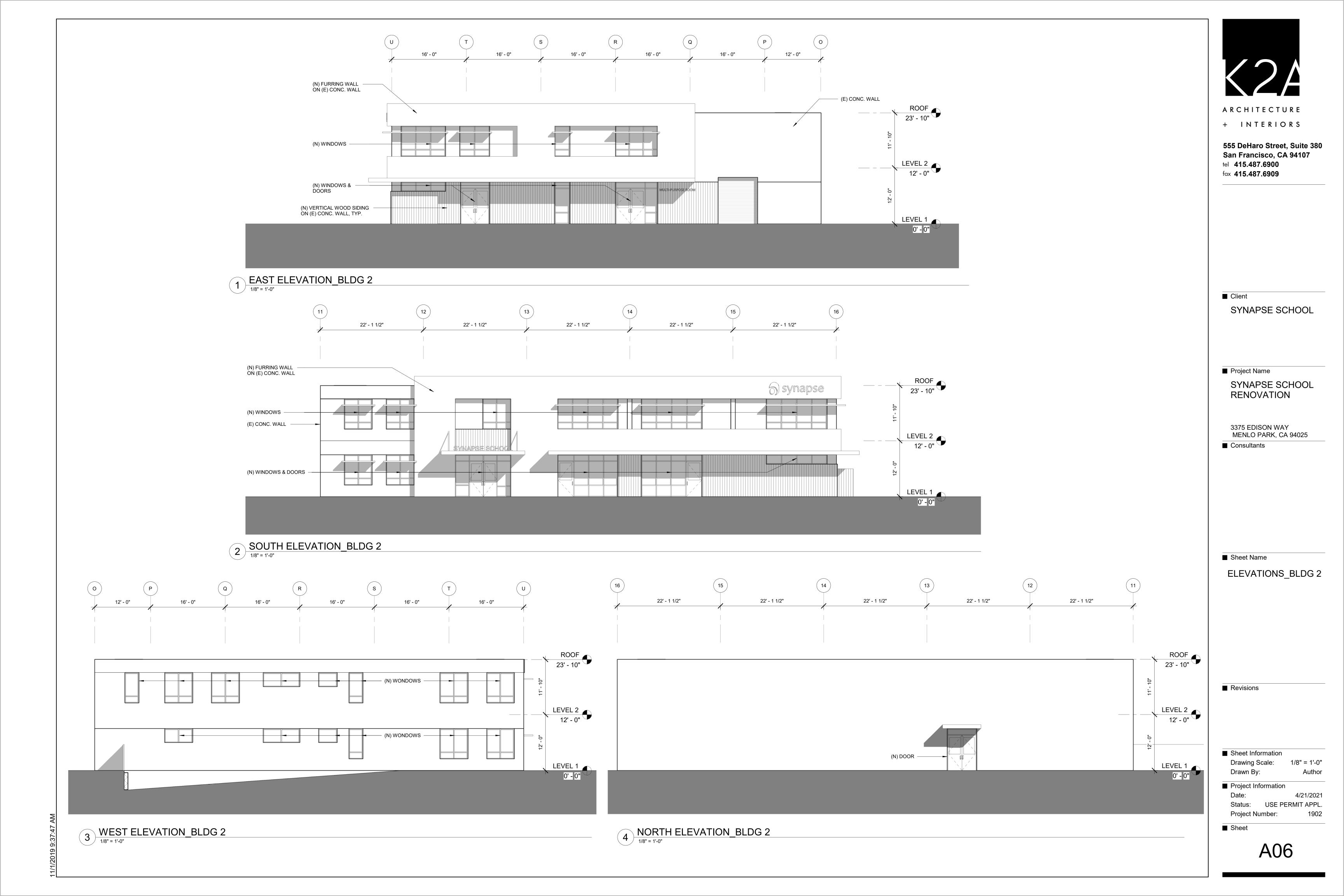
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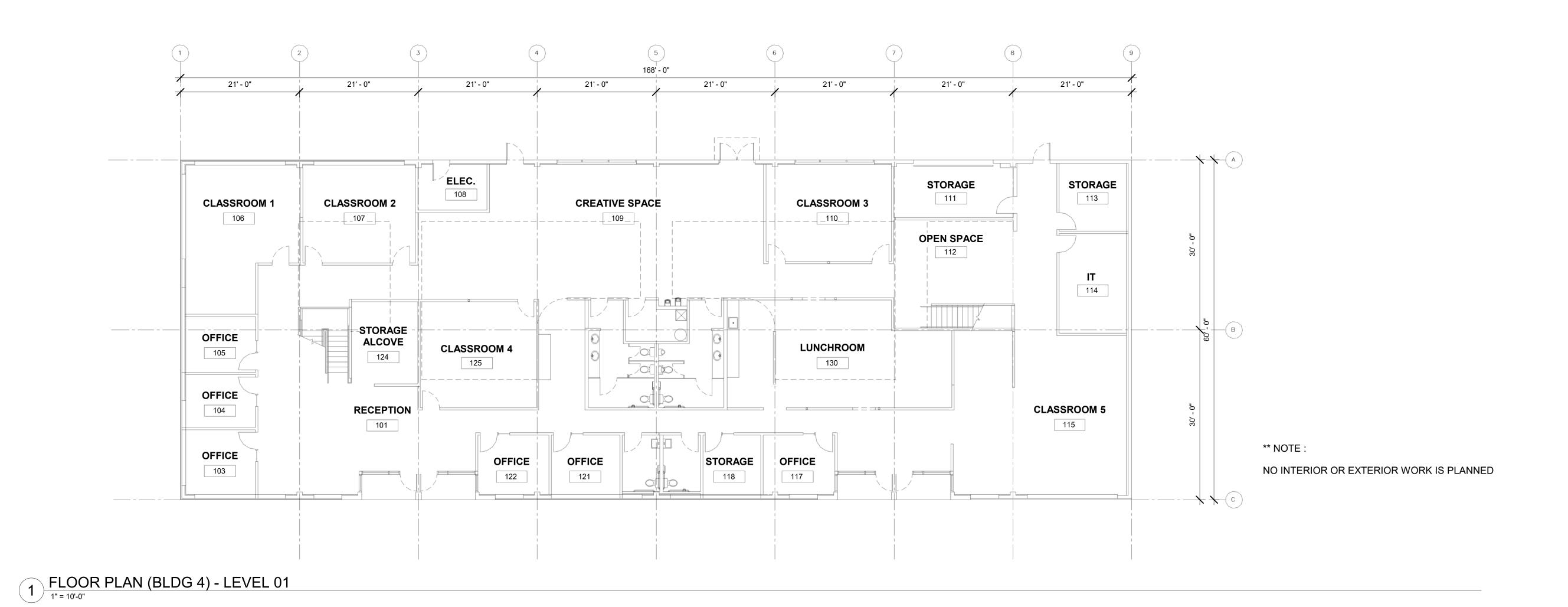
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 Project Number: 1902

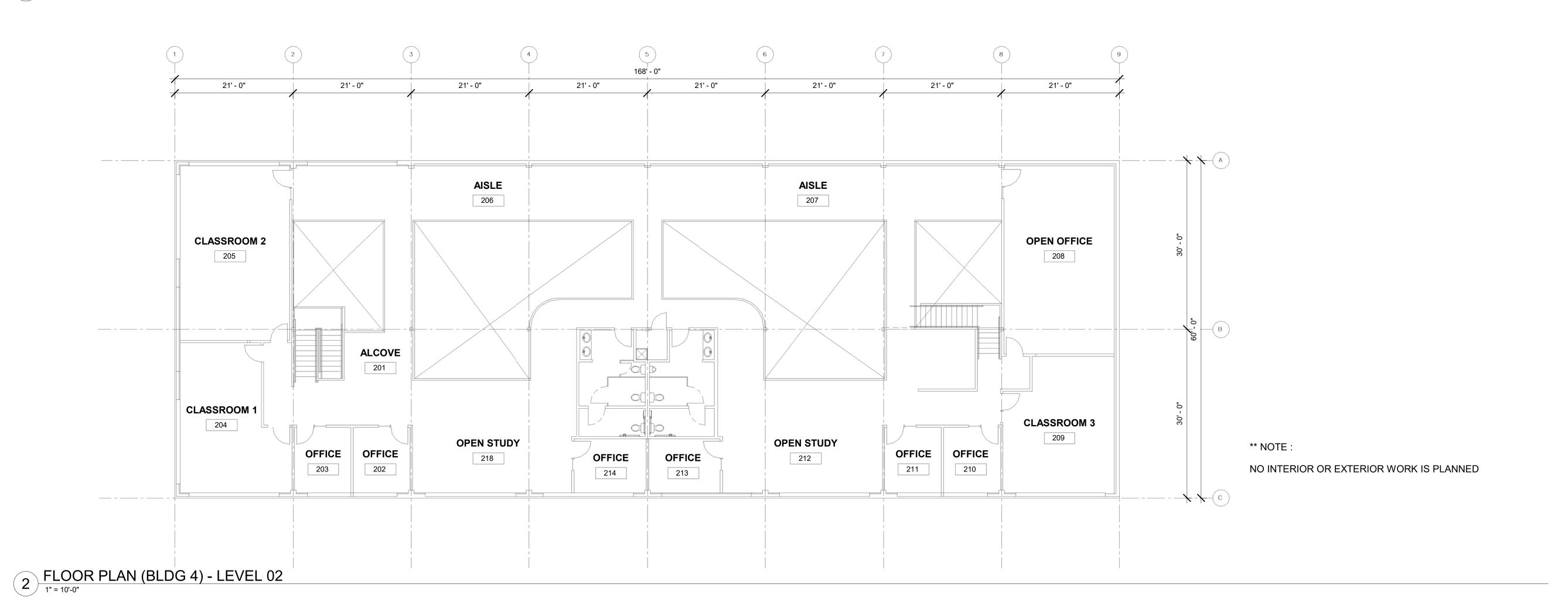
Sheet

A05









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

FLOOR PLANS_BLDG 4

■ Revisions

■ Sheet Information
Drawing Scale: 1"

Drawn By: Author

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

Project Number:

Sheet

80A

County of San Mateo - Planning and Building Department

PLACHMENT

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:

- 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;
 - 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 3 0 2017

OWNER: Anthony and Johnny Zanette; 3355 Edison Partners

APPLICANT: Synapse School, Attention: Karen McCown

BESZ DE LA VEGA

POSTING

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:

<u>Mitigation Measure 1:</u> 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.

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

<u>Mitigation Measure 3:</u> 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.

<u>Mitigation Measure 4:</u> 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. Noncompliance evidenced by the subsequent monitoring may also result in review of the use permit by the Planning Commission.

<u>Mitigation Measure 5:</u> 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.

<u>Mitigation Measure 6:</u> 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.

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

<u>Mitigation Measure 8:</u> 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.

<u>Mitigation Measure 9:</u> 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 facade 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 onsite, 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?				Х		

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		X
	resources, including, but not limited to,		
	trees, rock outcroppings, and historic		
	buildings within a state scenic highway?		

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.

c c r	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.								
C	Create a new source of significant light or glare that would adversely affect day or nighttime views in the area?		,	Х				
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.								
F	Be adjacent to a designated Scenic Highway or within a State or County Scenic Corridor?				Х			
site is no	sion: According to the County of San Mate of adjacent to a designated Scenic Highwa County of San Mateo General Plan, Sce	ay or within a S	State or Count					
٧	f 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.								
-	/isually intrude into an area having natural scenic qualities?				Х			
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	
urban	ssion: The project site is located in a light in a area and therefore does not involve farmlar e: Project Location; County of San Mateo,	ıd.	d district of the	e densely dev	eloped	
2.b.	Conflict with existing zoning for agricultural use, an existing Open Space Easement, or a Williamson Act contract?				Х	
urban contra		red by an oper				
Sourc	e: Project Location; County of San Mateo, 2	Zoning Iviap.				
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	
Discus	ssion: The project site is located in a light i	ndustrial zone	d district of the	e densely deve	eloped	

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		
	ussion: The project site is not located within ce: Project Location; County of San Mateo,		one.				
2.e.	Result in damage to soil capability or loss of agricultural land?				Х		
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							
Sour	rce: Project Plans.						

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?			Х	

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	Χ	
	contribute significantly to an existing or projected air quality violation?		
	projected all quality violation:		

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 1999¹ 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:

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

¹Thresholds 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.

Lan Market and Control of Control	net wh atta or (indexe	esult in a cumulatively considerable to increase of any criteria pollutant for each the project region is non-ainment under an applicable Federal State ambient air quality standard cluding releasing emissions which ceed quantitative thresholds for ozone ecursors)?		X		
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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	
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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 redesignation.

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
	72		E

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?		
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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.

		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?				Х

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. X Have a significant adverse effect on any 4.b. 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? 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. X Have a significant adverse effect on 4.C. 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? 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. X 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? 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)?				Х
Discussion: The project site is located in a den resources as the entire project parcels contain dedevelopment on the project parcels and does not source: Project Location; Project Plans.	evelopment. Th	he project prop	ooses to utilize	
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?				Х
Discussion: There are no adopted Habitat Consellans, or other approved local, regional, or State nearby vicinity.	habitat conser	vation plans fo	r the project s	ite or
Source: California Department of Fish and Wild Regional Conservation Plans Map.	ire, Habitat Col	nservation Pla	nning, Califori	าเล
4.g. Be located inside or within 200 feet of a marine or wildlife reserve?				Х
Discussion: The project is not located inside or	within 200 feet	of a marine o	r wildlife reser	ve.
Source: U.S. Fish and Wildlife Services, National	ıl Wildlife Refu	ge System Lo	cator.	
4.h. Result in loss of oak woodlands or other non-timber woodlands?				Х
Discussion: The project site does not support of the project site is located in a densely developed			mber woodlan	ds as
Source: Project Location; Project Plans.				

		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?				Х
propo Furtheregist Soure and Is	ussion: The project will not cause an adverses to utilize existing on-site development the ermore, the project sites and existing buildingers. ce: Project Location; Project Plans; San Massues, Chapter 5: Historical and Archaeologic Preservation.	nat was constr gs are not liste ateo County Ge	ucted within thed on any loca eneral Plan, O	ne last 25 year I or state histo verview Backo	s. prical ground
5.b.	Cause a significant adverse change in the significance of an archaeological resource pursuant to CEQA Section 15064.5?				Х
orojed Furth Sour e	ession: The project will not cause an adver of proposes to utilize existing on-site develop ermore, no new ground disturbance is neces ce: Project Location; Project Plans; San Ma ssues, Chapter 5: Historical and Archaeolog	oment that was ssary to impler ateo County Ge	s constructed venent or operateneral Plan, O	within the last e the propose	25 years d project
projed Furth Sour	et proposes to utilize existing on-site develor ermore, no new ground disturbance is neces ce: Project Location; Project Plans; San Ma	oment that was ssary to impler ateo County Ge	s constructed venent or operateneral Plan, O	within the last e the propose	25 years d project
Source and Is 5.c. Discu	ct proposes to utilize existing on-site development proposes to utilize existing on-site development of the property of the pr	oment that was ssary to impler ateo County Geoglical Resource reloped urban lag activities that	s constructed went or operateneral Plan, Oss.	within the last e the propose verview Backg	25 years d project ground X
Source and Is 5.c. Discu	ct proposes to utilize existing on-site development on new ground disturbance is necessarily project Location; Project Plans; San Massues, Chapter 5: Historical and Archaeolog Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? Ission: The project parcels are entirely developed to the project does not include any ground disturbing the project resource or site or unique geological resource or site	oment that was ssary to impler ateo County Geoglical Resource reloped urban lag activities that	s constructed went or operateneral Plan, Oss.	within the last e the propose verview Backg	25 years d project ground X

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:	5					
	 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	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. X iv. Landslides? 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. X 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). Discussion: The project site is not located on a coastal cliff or bluff. Source: Project Location. X Result in significant soil erosion or the 6 b loss of topsoil? 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. X Be located on a geologic unit or soil 6.c. 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? 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	X
	in the 2010 California Building Code,	
	creating significant risks to life or	
	property?	

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	=		Х
	supporting the use of septic tanks or alternative wastewater disposal systems			
	where sewers are not available for the disposal of wastewater?			

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
provid Energ Renev Susta the proffice, lab sp manda project vehicle	ession: The County of San Mateo's adopted les strategies for reducing GHG emissions to y Efficiency, Commercial and Industrial Enewable Energy, Transportation, Alternative Fulinable Agriculture Practices, Off-Road Technoject includes reuse of the existing buildings storage, and child recreation to uses in suppace, administrative offices). Building renovatory California Green Building Standards and proposes to continue and expand the use e miles traveled and to continue encouragin	o eleven areas ergy Efficiency, uels, Waste Div nology, and Se s by renovating oport of the sch ations will reque nd California E of school shutted g carpooling.	of focus including Green Building Version, Water equestration. On the food in the food in the food of	ding Resident of Ordinance, of Efficiency, of these categories former uses on (i.e., classrompliance with Additionally, ts and staff to number of on-se	ories, s as coms, the reduce site
Count availa and st the pr emiss	ng spaces (127) relative to the number of party's Parking Regulations (Chapter 3 of the Chapter 3 of the Cha	county's Zoning ring business h on, such as sch dopted for the	g Regulations) nours indirectly nool shuttles of purpose of red	, and the limite y encourage s r carpool. The ducing GHG	ed tudents
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
North	resion: The project site is located in a light Fair Oaks community and therefore will not ce: Project Location.	industrial zone have any impa	ed district of the act on forestla	e densely deve nds.	eloped
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
baysh	ussion: The project site is not located near nore inundation maps prepared as part of the ders the potential for both shoreline overtopp	e County of Sa	n Mateo Sea	Change Progra	am that

affected by, or have any impact on, sea level rise.

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

				CA
7.e.	Expose people or structures to a significant risk of loss, injury or death involving sea level rise?			X
Disc	ussion: See staff's discussion in Section 7.0	d. above.		
Sour	ce: 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
Discu	ussion: The project site is not located within	a 100-year flo	ood hazard ar	ea.
	ce: Federal Emergency Management Agend 1C0302E, effective October 16, 2012.	cy, Flood Insu	rance Rate Ma	ap, Community Panel
7.g.	Place within an anticipated 100-year flood hazard area structures that would impede or redirect flood flows?			X
Discu	ussion: See staff's discussion in Section 7.f	. above.		
Sour	ce: See referenced source in Section 7.f. ab	oove.		

		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	ce: Project Plans; County of San Mateo Per	mit 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 = =		Х		
	ssion: See staff's discussion in Section 8.a						
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			
	ssion: Despite the project site's existing ar			, the school w	ill not		
	ny hazardous emissions. See staff's discus ee: Project Plans.	sion in Section	n o.a. above.				
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?				Х		
Hazar Contro State Leakir as Sp potent over 1 hazard	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?				Х		
public	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?				Х			
	ssion: The project site is not located within	the vicinity of	any known pr	ivate airstrip.				
Source	e: Project Location.							
8.g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		X					
with the not pro expans impact reduce physica signific measu	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.							
	Project Plans; Final Traffic Impact Analyston Transportation Consultants, Inc., dated Consultants, Inc., dated Consultants			ansion, prepar	ed by			
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			
in close	sion: The project site is in the densely urbe proximity to any wildlands. Project Location.	anized area o	f North Fair O	aks and theref	ore not			
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?				Х			
	sion: The project area is not located within any housing.	n a 100-year fl	ood hazard ar	ea and does r	not			
Manage	e: County of San Mateo General Plan, Natu ement Agency, Flood Insurance Rate Map, r 16, 2012.				е			

8.j.	Place within an existing 100-year flood hazard area structures that would impede or redirect flood flows?		=		X
	ussion: See staff's discussion in Section 8.i.				
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
the pr	ission: According to FEMA flood maps and oject parcels are not within an area that cou am or levee.				
Emer	ce: Project Location; County of San Mateo (gency Management Agency, Flood Insurancive October 16, 2012.	General Plan, e Rate Map, C	Natural Hazar Community Pa	ds Map; Fede nel 06081C03	ral 02E,
8.1.	Inundation by seiche, tsunami, or mudflow?				X
parce locate	Ission: According to the San Mateo County Is are not located in a tsunami or seiche inured in a flat, densely developed urban area who do not concern.	ndation area.	Furthermore,	the project par	cels are

9.	HYDROLOGY AND WATER QUALITY.	Would the proj	ect:		
		Potentially Significant Impacts	Significant Unless Mitigated	Less Than Significant Impact	No Impact
9.a.	Violate any water quality standards or waste discharge requirements				Х

Source: San Mateo County General Plan, Natural Hazards Map; Project Location.

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))?

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 X 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)? 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 X 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? 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 X 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 onor off-site? 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
to the	ussion: The project proposes no changes to e existing drainage patterns. ce: Project Plans.	the existing o	development c	conditions of th	e site or
9.f.	Significantly degrade surface or ground- water water quality?				Χ
the vi	ussion: The project proposed no changes to icinity. Furthermore, the project will utilize exed by the California Water Service Company.	isting develop	ment which w	rill continue to	be
Sour	ce: Project Plans.				
9.g.	Result in increased impervious surfaces and associated increased runoff?				Х
	ussion: See staff's discussions in Section 9.				

10.	LAND USE AND PLANNING. Would the project:							
	927	Potentially Significant Impacts	Significant Unless Mitigated	Less Than Significant Impact	No Impact			
10.a.	Physically divide an established community?				Х			

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.

	i saver ar				THE CANADA STATE OF THE CA	
	10.b.	Conflict with any applicable land use	X	(
	2 1000 CO 1000 CO	plan, policy or regulation of an agency				
			1			
		with jurisdiction over the project				
		(including, but not limited to, the general				
1		plan, specific plan, local coastal				
		program, or zoning ordinance) adopted				
1						
		for the purpose of avoiding or mitigating				
		an environmental effect?				
1		539111124-4 COLUMNOS - 1237 COLO - 4 19910 COLO - COLUMNOS - 123 COLO				

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 use³ 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 nonconforming 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 parttime 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.							
	<u>Mitigation Measure 3</u> : 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.							
Count	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?				Х			
	ssion: The project would not conflict with a rvation plan.	ny habitat con	servation plar	or natural co	mmunity			
	e: California Department of Fish and Wildlit nal Conservation Plans Map.	fe, Habitat Coi	nservation Pla	nning, Califorr	nia			
10.d.	Result in the congregating of more than 50 people on a regular basis?		Х					
during enrollr projec institut schoo Sectio recom projec	ssion: The project will result in the congregative school year (August through June) as the school year (August through June) as the ment to 260; current student enrollment is apply the parcels is Industrial Mixed Use which allow the parcels is Industrial Mixed Use which allow the parcels such as schools/training and specifically the potential to generate parking and the parcel section 16. Which includes further mended mitigation measures related to increase. The project Plans; See referenced sources in the school of the project Plans; See referenced sources in the school of the sch	he project is p oproximately 2 vs a medium to orts facilities. raffic impacts her discussion eased parking	roposed to inc 20. The land high density The intensity of to the area. S on the potenti and traffic as	rease student use designation of land uses, if use for the kee staff's discal impacts and sociated with the	on for the including (-8 ussion in			
10.e.	Result in the introduction of activities not currently found within the community?				Х			
Edisor projec	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		X
	housing?		

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?				Х			
	ission: The project parcel does not contain al Resources Map of the County's General F		neral resource	es, according	to the			
Sourc	ce: San Mateo County General Plan, Minera	al Resources N	Лар.					
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?				Х			

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			Х				
	established in the local general plan or noise ordinance, or applicable standards of other agencies?							

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?			

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		
noise a mini Furthe	ssion: The project is not expected to cause levels in the area as a majority of the schoo mal increase in student capacity (40 studen ermore, see staff's discussion in Section 12.3 ee: Project Plans; See referenced sources in	l activities occ ts) from the sc a. above.	urs indoors an hool's current	d the project p	oroposes	
12.d.	A significant temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			Х		
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?				Х	
2 miles	ssion: The project is not located within an a so of a public airport. e: Project Location.	area regulated	by an airport	land use plan	or within	
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?				Х	
	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)?				Х	

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
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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?				Х
14.b.	Police protection?				Х
14.c.	Schools?				Х
14.d.	Parks?				Х

14.e.	Other public facilities or utilities (e.g., hospitals, or electrical/natural gas supply systems)?		X
Discu	ssion: The project proposes to expand an	existing K-8 private school into existing	

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	
and the	ission: The project will provide on-site (independent of the project will provide on-site (independent of the project Plans). Project Plans.	of any neighbo	rhood or regio	l areas for stu onal parks or c	dents other	
15.b.	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				Х	

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
Matec identif Middle	ussion: The project is estimated to add fewer County Congestion Management Program' fied to have any impacts to the level of service field Road and Woodside Road (State Route project that is included in the CMP network	s (CMP) netwo ce standards c te 84), which is	ork. Furtherm or travel dema	ore, the project nd measures of	ct is not of
of Gov	ce: Final San Mateo County Congestion Mavernments of San Mateo County; Final Traffict, prepared by Hexagon Transportation Con	c Impact Analy	ysis for Synap	se School Exp	sociation pansion
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?				Х
school	ssion: The project will not have any impact will utilize existing development and does note: Project Plans.	s on air traffic not involve air t	patterns as th traffic.	e expansion o	f the
16.d.	Significantly increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		X		
Discus	ssion: The Traffic Impact Analysis (TIA), pr	epared by He	xagon Transpo	ortation Consu	ıltants,

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:

<u>Mitigation Measure 4</u>: 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.

<u>Mitigation Measure 5</u>: 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.

<u>Mitigation Measure 6</u>: 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:

<u>Mitigation Measure 7</u>: 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:

<u>Mitigation Measure 9</u>: 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		X
	access?		

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.						
Sourc	e: 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?		Х			
Discus	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?				Х			

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.

		U-12-16-16-16-16-16-16-16-16-16-16-16-16-16-			
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?			Х	
District Comp Depart evaluation the no exp signification Source	ssion: The project parcels will continue to at (via the County of San Mateo Department any, both of which have provided (condition the timent of Public Works has indicated that the sted to determine if there is sufficient capacite proposed project, such evaluation would be pectation that any potential upgrades to the cant environmental effects given that the secunity. e: Project Plans; California Water Service (aks Sewer Maintenance District.	of Public Worl al) approval of e existing down ty to accommo e required at the sewer district's rvice district ar	ks) and the Ca the project. V nstream sewer odate any addi ne building per s facilities wou rea consists of	nlifornia Water While the Cour mains must to tional sewage mit stage, and ld result in any a densely urb	Service nty be demand d there is / banized
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?				Х
	ssion: See staff's discussion in Section 9.a.				
17.d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				Х
Compa	ssion: The project parcels will continue to bany, who has provided approval of the projee: Project Plans; California Water Service (ct with no con		Vater Service	
17.e.	Result in a determination by the waste- water 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	
	ssion: See staff's discussion in Section 17. See referenced sources in Section 17.b.				

					41	
17.f.	Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?			Х		
for the Recold Dispos applica materi dispos school solid w	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	
amour source Recycl with re Center the pro that is	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?				Х	
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.						
Jource	Source. Project Platis.					

17.i.	Generate any demands that will cause a public facility or utility to reach or exceed its capacity?	X	
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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 SIGNIFICA	NCE.			
		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		X	
	projects, and the effects of probable future projects.)			

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	X		
	adverse effects on human beings, either directly or indirectly?			

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)		Х	
State Water Resources Control Board		Х	
Regional Water Quality Control Board		Х	
State Department of Public Health		Х	

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

<u>Mitigation Measure 1</u>: 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.

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

<u>Mitigation Measure 3</u>: 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.

<u>Mitigation Measure 4</u>: 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.

<u>Mitigation Measure 5</u>: 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.

<u>Mitigation Measure 6</u>: 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.

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

<u>Mitigation Measure 8</u>: 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.

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

On the	basis of this initial evaluation:	
3		OT have a significant effect on the environment, and prepared by the Planning Department.
X	ment, there WILL NOT be a significa	ect could have a significant effect on the environ- nt effect in this case because of the mitigation en included as part of the proposed project. A repared.
\$2.500 miles	I find that the proposed project MAY ENVIRONMENTAL IMPACT REPOR	have a significant effect on the environment, and an RT is required.
		Sumban ban
		(Signature)
-	3/30/17	Project Planner
Date	8	(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)

DETERMINATION (to be completed by the Lead Agency).

- 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)

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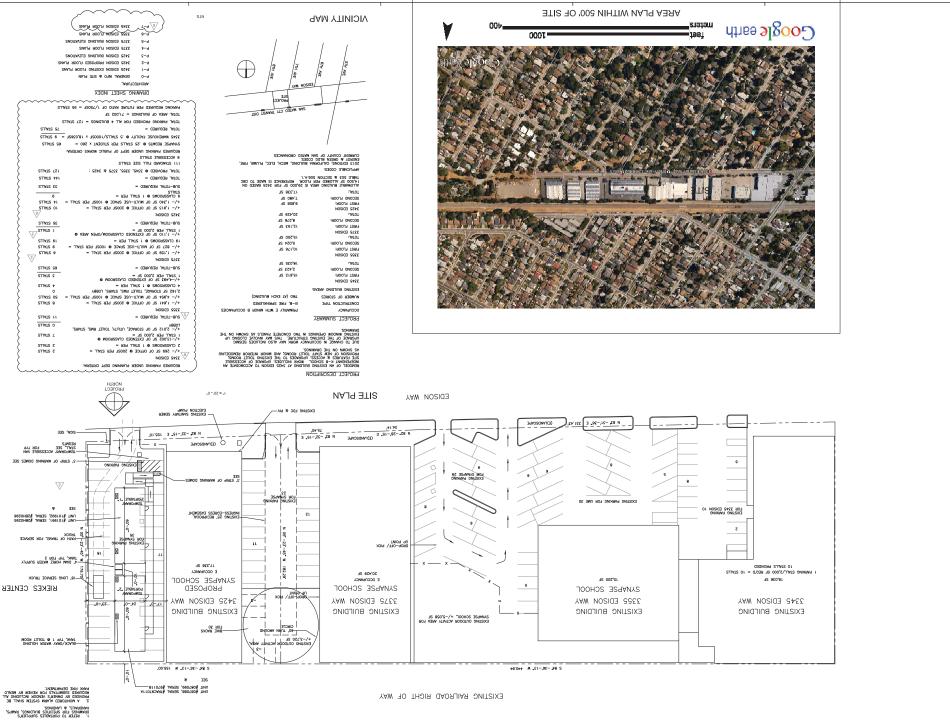
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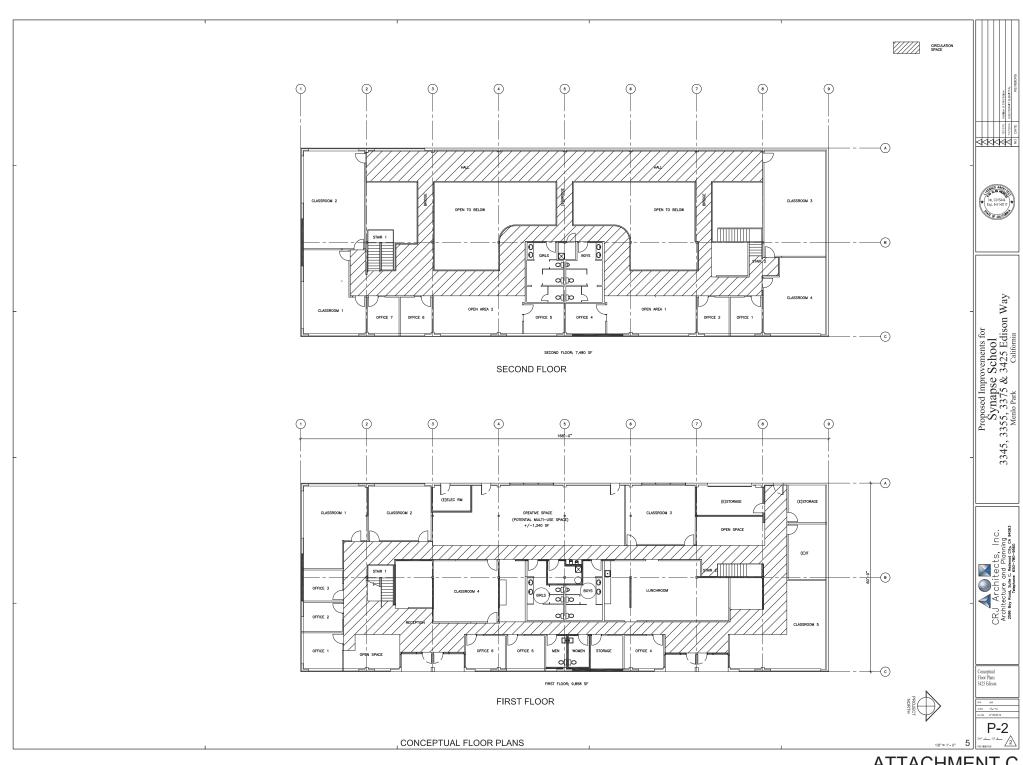
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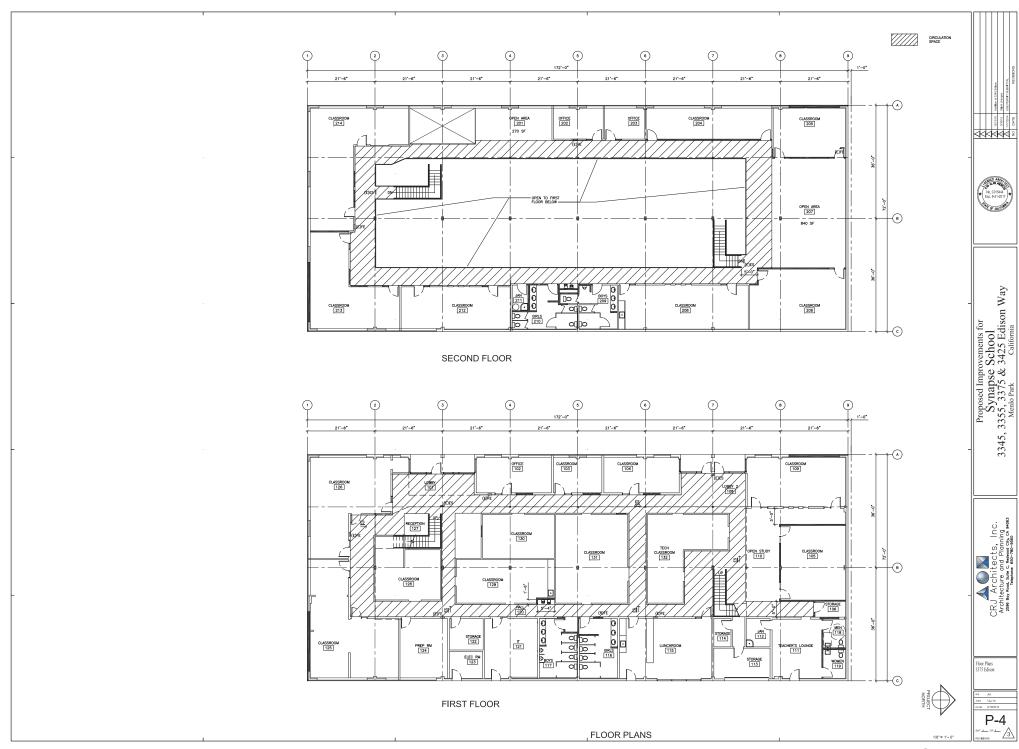
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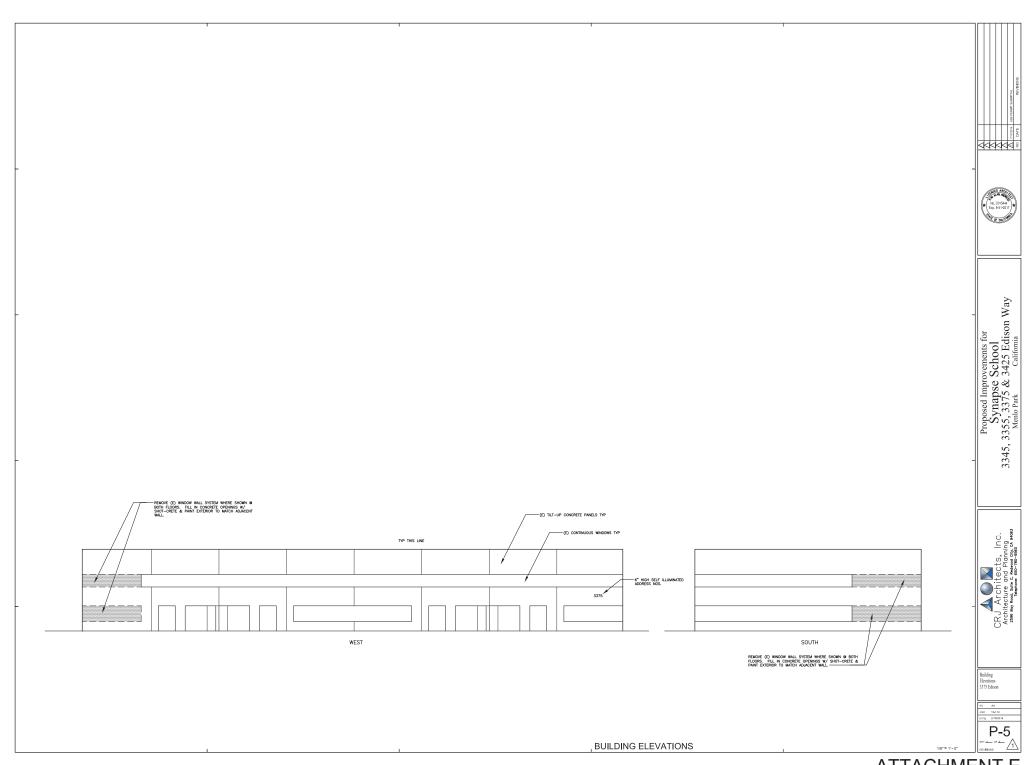
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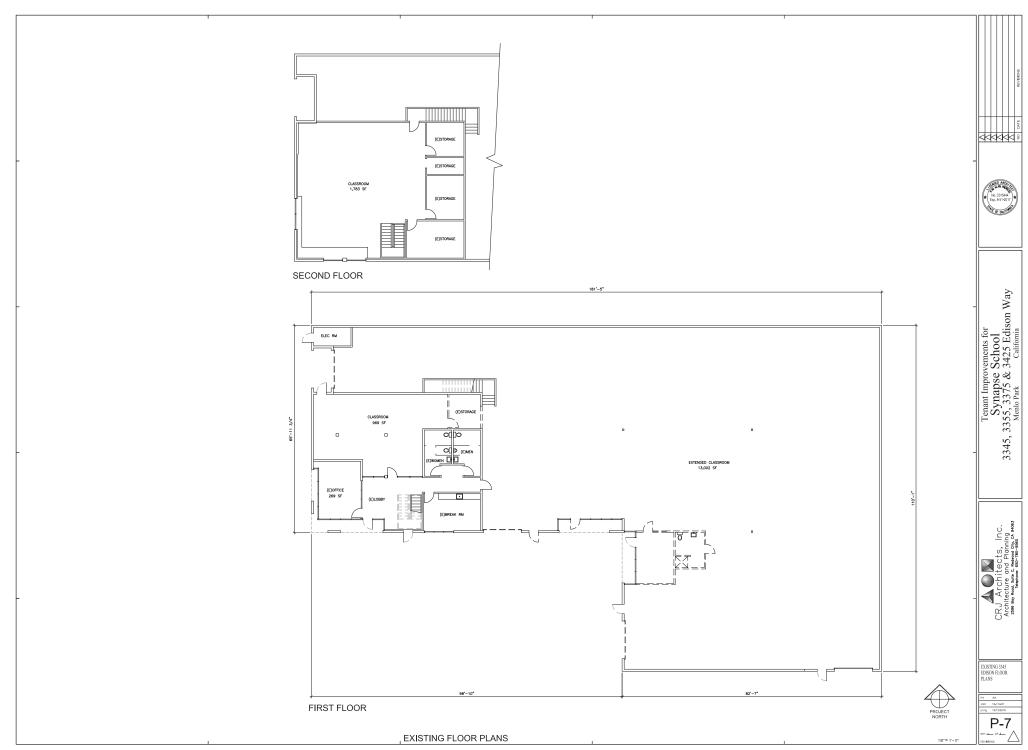












ATTACHMENT G

County of San Mateo - Planning and Building Department

PLACHMENT





HEXAGON TRANSPORTATION CONSULTANTS, INC.



Synapse School Expansion Project II

Trafic Impact Analysis



Prepared for:

Synapse School

April 21, 2021











Hexagon Transportation Consultants, Inc.

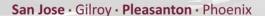
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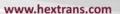




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Executive Summary

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				Cun	nulativ	e + Project			
				Avera	ige ¹	Wor	st ²	Avera	age ¹	Wor	st²	Avera	ge ¹	Wor	st²	Avera	ge ¹	Wor	st ²	Avera	ige ¹	Wor	st ²	Avera	ige ¹	Wor	st²
ı.	Intersection (Jurisdiction)	Control	Peak Hour	Delay (sec.)	106	Delay (sec.)	100	Delay (sec.)		Delay (sec.)	100	Delay (sec.)	LOS	Delay (sec.)	106	Delay (sec.)	100	Delay (sec.)	100	Delay (sec.)	100	Delay (sec.)	106	Delay (sec.)	100	Delay (sec.)	1.09
יטו	intersection (Jurisdiction)	Control	Houi	(360.)	LUJ	(566.)	LUJ	(360.)	LUJ	(566.)	LUJ	(560.)	LUJ	(566.)	LUJ	(566.)	LUJ	(566.)	LUJ	(560.)	LU3	(366.)	LOS	(566.)	LUJ	(366.)	LUG
1	2nd Ave and Edison Wy (San Mateo County)	AWSC	AM PM	9.1 8.5	A A	9.8 8.9	A A	9.2 8.5	A A	9.9 8.9	A A	9.3 8.8	A A	9.9 9.4	A A	9.3 8.9	A A	10.0 9.4	A A	10.3 9.1	B A	11.4 9.6	B A	10.3 9.1	B A	11.4 9.7	B A
2	5th Ave and Edison Wy	AWSC I	AM Mitigated AM ⁵	18.3	С	24.9	С	20.1	С	28.1	D	18.3	С	24.9	С	20.1	С	28.1	D	39.5	E	64.8	F	45.5 41.0	E E	78.0 68.4	E <i>E</i>
	(San Mateo County)		PM	18.8	С	25.0	С	19.3	С	25.8	D	18.8	С	25.0	С	19.3	С	25.8	D	38.5	Е	64.2	F	40.3	E	68.1	F
3	Fair Oaks Ave and Edison Wy (San Mateo County)	owsc	AM PM			9.5 9.4	A A			9.6 9.4	A A			9.5 9.4	A A			9.6 9.4	A A			9.7 9.5	A A			9.8 9.6	A A
4	Fair Oaks Ave and Marsh Rd (San Mateo County)	owsc	AM PM			16.9 18.8	C C			17.3 18.9	C C			18.0 20.4	C C			18.4 20.5	C C			19.0 21.7	C C			19.5 21.9	C C
5	5th Ave and Semicircle Rd (San Mateo County)	Signal	AM PM	7.3 5.4	A A	10.1 8.7	A A	7.3 5.4	A A	10.2 8.7	B A	7.2 5.4	A A	10.1 8.8	B A	7.3 5.4	A A	10.2 8.8	B A	14.6 9.0	B A	22.6 12.0	C B	14.7 9.0	B A	22.8 12.1	C B
6	5th Ave and Middlefield Rd (San Mateo County)	Signal	AM PM	24.9 26.2	C C	36.8 37.4	D D	25.5 26.4	C C	37.0 37.6	D D	25.4 26.4	C C	36.7 38.2	D D	26.1 26.6	C C	37.2 38.3	D D	36.0 37.6	D D	49.3 52.8	D D	37.8 38.1	D D	51.2 53.3	D D
7	Marsh Rd and Middlefield Rd (Atherton)	Signal	AM PM	29.3 32.1	C C			29.5 32.2	C C			32.6 34.0	C C			32.8 34.0	C C			32.7 38.3	C D			32.9 38.4	C D		
8	Marsh Rd and Bay Rd (Menlo Park)	Signal	AM PM	24.1 33.2	C C			24.2 33.2	C C			25.2 32.2	C C			25.3 32.2	C C			25.6 33.5	C C			25.7 33.5	C C		
9	5th Ave and El Camino Real (San Mateo County)	Signal	AM PM	19.2 19.7	B B	34.3 31.9	C C	19.4 19.8	B B	34.6 32.0	C C	19.4 19.9	B B	34.3 32.2	C C	19.6 20.0	B B	34.6 32.5	C C	25.7 26.5	C C	43.9 43.0	D D	26.2 26.7	C C	45.4 43.4	D D
10	Marsh Rd and Florence St (Menlo Park)	Signal	AM PM	37.9 39.0	D D			37.8 39.0	D D			36.4 39.0	D D			36.5 39.0	D D			39.5 41.6	D D			39.5 41.6	D D		
11	5th Ave and Bay Rd (Redwood City)	AWSC	AM PM	30.6 29.1	D D			30.9 29.2	D D			34.3 36.1	D E			34.7 36.3	D E										
		Signal ⁴	AM PM																	19.5 13.4	B B			20.2 13.4	C B		
12	Woodside Rd and Bay Rd (Redwood City)	Signal	AM PM	81.2 47.1	F D			81.7 47.2	F D			124.7 95.1	F F			125.2 95.2	F F			90.6 122.7	F F			91.7 122.9	F F		
13	Woodside Rd and Middlefield Rd (Redwood City/CMP)	Signal	AM PM	41.9 35.3	D D			42.2 35.3	D D			43.9 35.0	D D			44.1 35.1	D D			117.1 127.3	F F			117.6 127.6	F F		
14	Marsh Rd and US 101 NB Off-ramp (Menlo Park)	Signal	AM PM	17.6 13.5	B B			17.6 13.5	B B			25.0 13.8	C B			25.1 13.9	C B			19.8 15.8	B B			19.9 15.9	B B		
15	Marsh Rd and US 101 SB Off-ramp (Menlo Park)	Signal	AM PM	17.4 17.8	B B			17.4 17.8	B B			19.0 17.9	B B			19.1 17.9	B B			19.5 19.7	B B			19.6 19.7	B B		
16	2nd Ave and Bay Rd (Redwood City)	AWSC	AM PM	12.7 12.6	B B			12.8 12.6	B B			13.7 14.2	B B			13.8 14.3	B B			28.3 14.1	D B			28.7 14.2	D B		
17	2nd Ave and Middlefield Rd	TWSC I	AM Vitigated AM ⁵			40.9	E			43.2	E			46.0	E			48.9	E			155.5	F			167.3 159.1	F F
	(San Mateo County)		PM			26.3	D			26.3	D			57.9	F			58.5	F			62.7	F			64.1	F
	San Benito Ave and Fair Oaks Ave (San Mateo County)	TWSC	AM PM			11.9 9.7	B A			12.2 9.7	B A			11.9 9.7	B A			12.2 9.7	B A			12.6 9.9	B A			12.9 10.0	B B
19	Palmer Ln and Fair Oaks Ave (San Mateo County)	TWSC	AM PM			11.5 9.9	B A			11.6 9.9	B A			11.5 9.9	B A			11.6 9.9	B A			12.1 10.1	B B			12.3 10.2	B B
20	Holbrook Ln and Fair Oaks Ave (San Mateo County)	TWSC	AM PM			10.7 9.3	B A			10.8 9.3	B A			10.7 9.3	B A			10.8 9.3	B A			11.1 9.4	B A			11.2 9.5	B A



				Exis	ting		Existing + Project		Background				Background + Project			Cumulative			Cun	+ Proje	Project		
				Average ¹	Wors	st ²	Average ¹	Wor	st ²	Avera	ge ¹	Wors	st ²	Average ¹	Worst	t ²	Average ¹	Wor	st²	Avera	ige ¹	Wors	st ²
			Peak	Delay	Delay		Delay	Delay		Delay		Delay		Delay	Delay		Delay	Delay		Delay		Delay	
ID	Intersection (Jurisdiction)	Control	Hour	(sec.) LOS	(sec.)	LOS	(sec.) LOS	(sec.)	LOS	(sec.)	LOS	(sec.)	LOS	(sec.) LOS	(sec.) L	.os	(sec.) LOS	(sec.)	LOS	(sec.)	LOS	(sec.)	LOS
21	18th Ave and Bay Rd	OWSC ³	АМ		9.3	Α		9.3	Α			9.3	Α		9.3	Α		10.1	В			10.1	В
	(San Mateo County)	OWSC	PM		8.7	Α		8.7	Α			8.7	Α		8.7	Α		8.9	Α			8.9	Α
22	14th Avee and Fair Oaks Ave	TWSC	AM		10.8	В		11.0	В			10.8	В		11.0	В		11.3	В			11.5	В
	(San Mateo County)	10030	PM		9.8	Α		9.8	Α			9.8	Α		9.8	Α		10.0	В			10.0	В

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

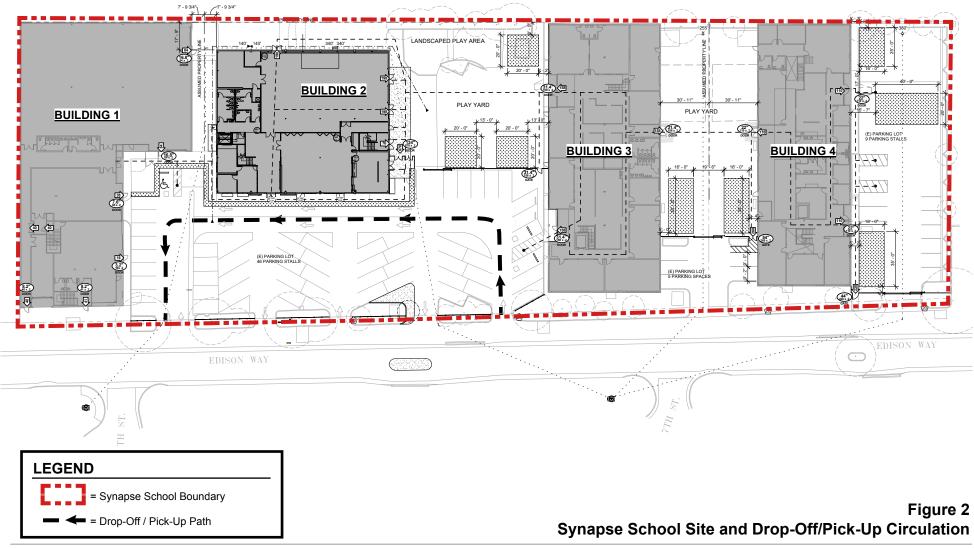
The traffic study was conducted for the purpose of identifying potential transportation impacts related to the project. The potential impacts of the project were evaluated in accordance with the standards set forth by the County of San Mateo, Redwood City, City of Menlo Park, and Town of Atherton. The 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.















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.)
А	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
В	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
С	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
Е	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: Tra	ansportation Research Board, 2000 Highway Capacity Manual (Washington, D.C	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.)					
А	Little or no traffic delay	10.0 or less					
В	Short traffic delays	10.1 to 15.0					
С	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.
- 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; <u>and</u> traffic volumes at the intersection satisfy the Caltrans peakhour 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.

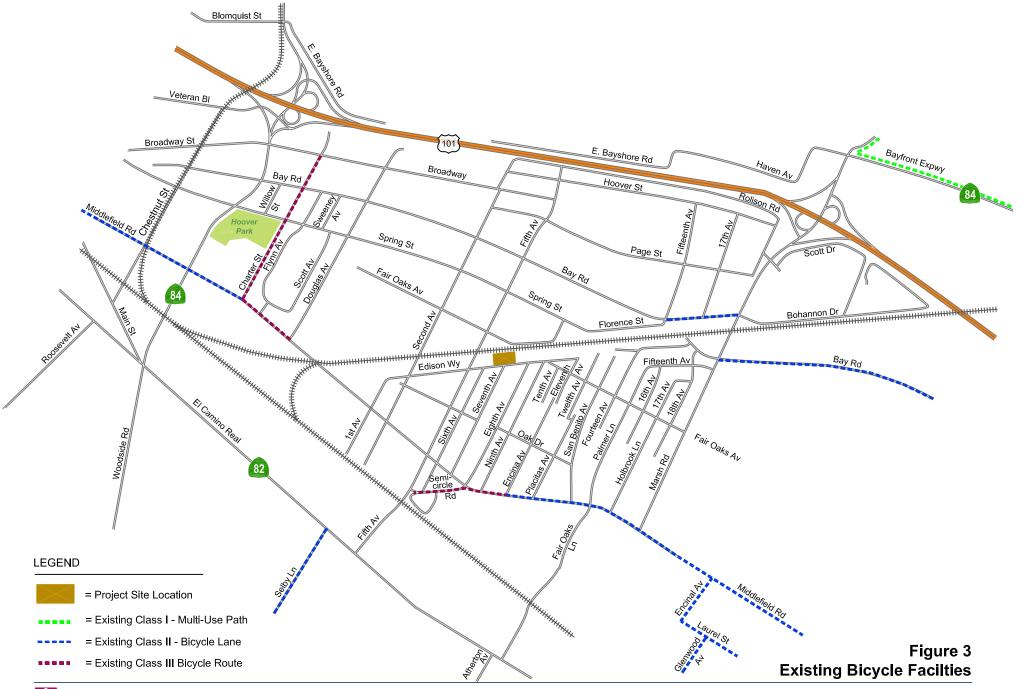
The San Mateo County Comprehensive Bicycle and Pedestrian Plan (September 2011) proposes future designation of 5th Avenue (between Middlefield road and Bay Road) and Bay Road (between Charter Street and 5th Avenue) as Class III bike routes within the study area. Based on the Redwood City General Plan, 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.















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

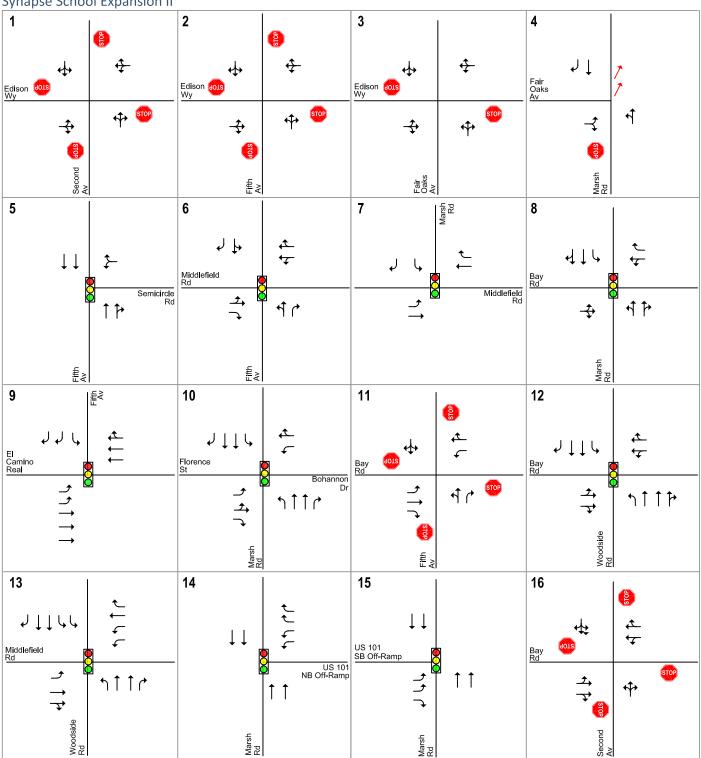
The results of the intersection level of service analysis (Table 3) show that under the existing conditions, all study intersections are operating within applicable level of service standards, with the following exceptions:

- 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





		40		40		00	
17		18		19		20	47th Av
Middlefield	4	Fair Oaks dols	‡	Fair dols +	\diamond	Fair Oaks Av	\$
<i>→</i> →	♦	‡	STOP	-	₹	→	₹ STOP
Second		San Benito Av		Palmer Ln		Holbrook	
21		22	\$				
Bay Rd	\	Fair Oaks Av	~				
7,	→	‡	₹				
18th Av		14th Av					

LEGEND



= Stop Controlled Intersection



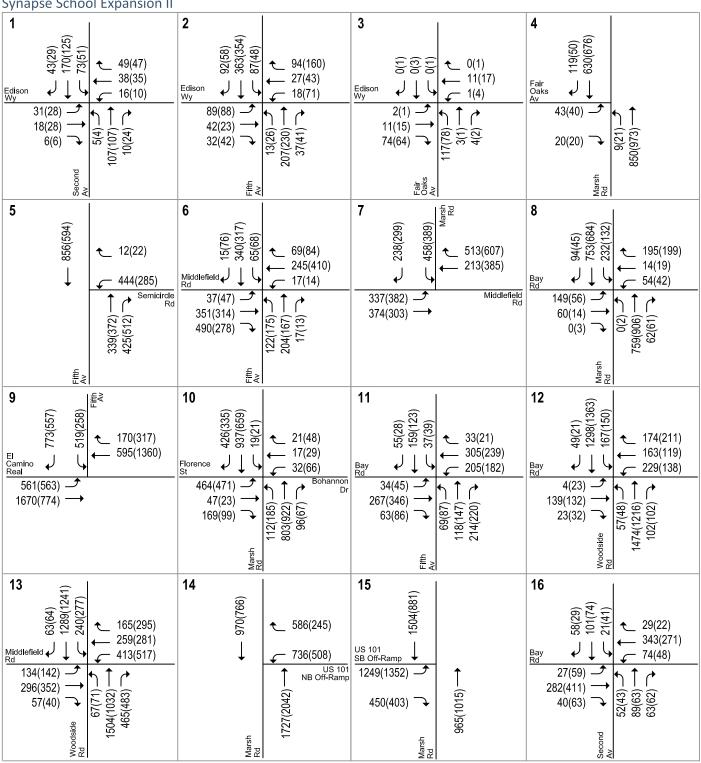
= Signalized Intersection



Figure 5 **Existing Lane Configurations**







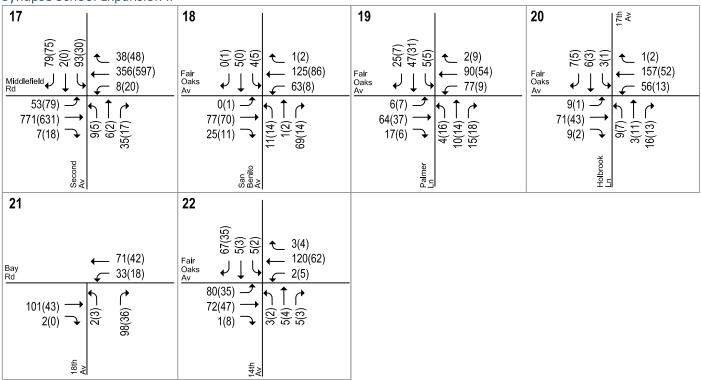
LEGEND

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

Figure 6 **Existing Traffic Volumes**







LEGEND







Table 3
Existing Intersection Levels of Service

				Aver	age ¹	Wo	rst ²
			Peak	Delay		Delay	
ID	Intersection (Jurisdiction)	Control	Hour	(sec.)	LOS	(sec.)	LOS
1	2nd Ave and Edison Wy	AWSC	AM	9.1	Α	9.8	Α
	(San Mateo County)		PM	8.5	Α	8.9	Α
2	5th Ave and Edison Wy	AWSC	AM	18.3	С	24.9	С
	(San Mateo County)		PM	18.8	С	25.0	С
3	Fair Oaks Ave and Edison Wy	OWSC	AM			9.5	Α
	(San Mateo County)		PM			9.4	Α
4	Fair Oaks Ave and Marsh Rd	OWSC	AM			16.9	С
	(San Mateo County)		PM			18.8	С
5	5th Ave and Semicircle Rd	Signal	AM	7.3	Α	10.1	Α
	(San Mateo County)		PM	5.4	Α	8.7	Α
6	5th Ave and Middlefield Rd	Signal	AM	24.9	С	36.8	D
	(San Mateo County)		PM	26.2	С	37.4	D
7	Marsh Rd and Middlefield Rd	Signal	AM	29.3	С		
	(Atherton)		PM	32.1	С		
8	Marsh Rd and Bay Rd	Signal	AM	24.1	С		
	(Menlo Park)		PM	33.2	С		
9	5th Ave and El Camino Real	Signal	AM	19.2	В	34.3	С
	(San Mateo County)		PM	19.7	В	31.9	С
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	В		
	(Menlo Park)		PM	13.5	В		
15	Marsh Rd and US 101 SB Off-ramp	Signal	AM	17.4	В		
	(Menlo Park)		PM	17.8	В		
16	2nd Ave and Bay Rd	AWSC	AM	12.7	В		
	(Redwood City)		PM	12.6	В		
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	В
	(San Mateo County)		PM			9.7	Α
19	Palmer Ln and Fair Oaks Ave	TWSC	AM			11.5	В
	(San Mateo County)		PM			9.9	Α
20		TWSC	AM			10.7	В
	(San Mateo County)		PM			9.3	Α



			Aver	age ¹	Wor	·st²
ID Intersection (Jurisdiction)	Control	Peak Hour	Delay (sec.)	LOS	Delay (sec.)	LOS
21 18th Ave and Bay Rd	OWSC ³	AM			9.3	Α
(San Mateo County)		PM			8.7	Α
22 14th Avee and Fair Oaks Ave	TWSC	AM			10.8	В
(San Mateo County)		PM			9.8	Α

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								
Land Use	Size	Units	Pk-Hr Rate	Sp In	lits Out	In	Out	Total	Pk-Hr Rate	Sp In	lits Out	In	Out	Total
Land USE	Size	Ullita	Nate		Out	""	Out	I Otal	Nate	""	Out		Out	i Otai
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:

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.



^{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.

- 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

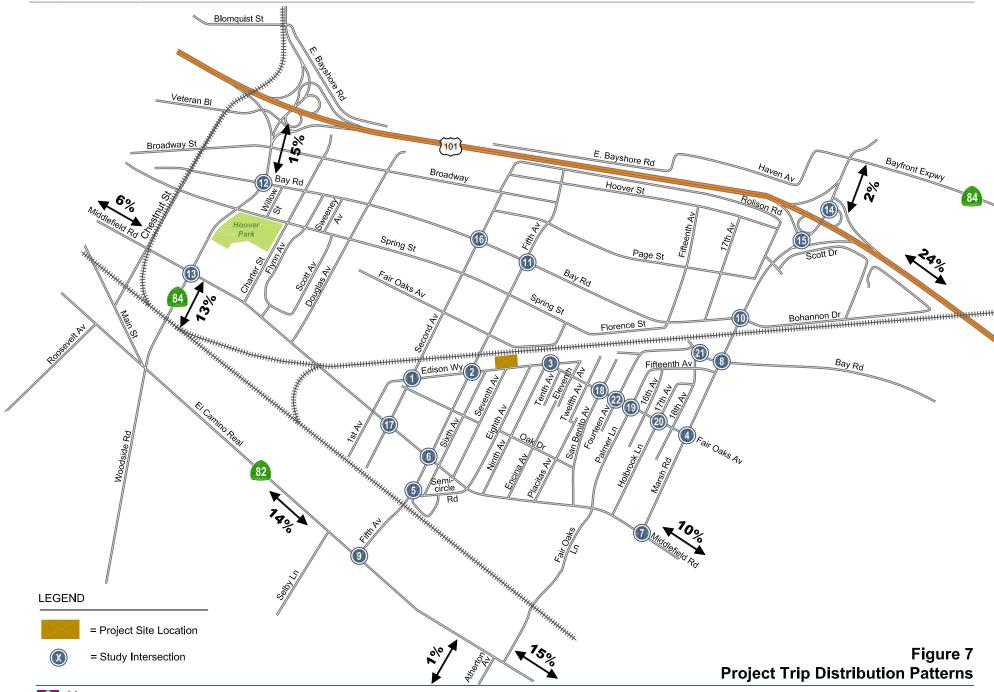
The new project trips, as represented in the above project trip assignment, were added to existing traffic volumes to obtain existing plus project traffic volumes. The existing plus project traffic volumes are shown in Figure 9.

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.









Synapse School Expansion II			
1 1	2	3	4
Edison	Edison $(0,0)$		Fair \bigcirc
Second	Frith	Fair Oaks Av	Marsh Rd
5	6	Marsh Rd	8
10(3)	Middlefield \downarrow Rd	€ 3(1)	(2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4
Semicircle Rd	11(3)-	Middlefield Rd	4(1)
A A A	A A A A A		Marsh Rd
9	10	11	12
(Z) (Z) ← 6(2) El Camino Real	(E) Florence St	Bay Rd	2) ← 5(2) Bay Rd
5(1) —	Marsh Rd S(3)	5(1) → (1) 4 (1)	Woodside Rd
40			
$ \begin{array}{c} $	0)1	15 (E)6 US 101 SB Off-Ramp (0)1	16 Bay A(1) 5(1) →
Woodside Rd	Marsh Rd	Marsh Rd	Second

LEGEND

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

Figure 8 Project Trip Assignment





17	ZAPANOION II	18		19		20	47th A
2(5) Middlefield A	← 1(0)		← 13(4)	Fair Oaks Av	← 11(3)	Fair Oaks Av	← 11(3)
5(2) 2(0) 		12(4)		7(3)		7(3)	
Second Av		San Benito Av		Palmer Ln		Holbrook	
21		22					
Bay Rd	← 2(0)	Fair Oaks Av	— 11(3)				
4(1)		4(1) ** 7(3) **					
18th Av		14th Av					

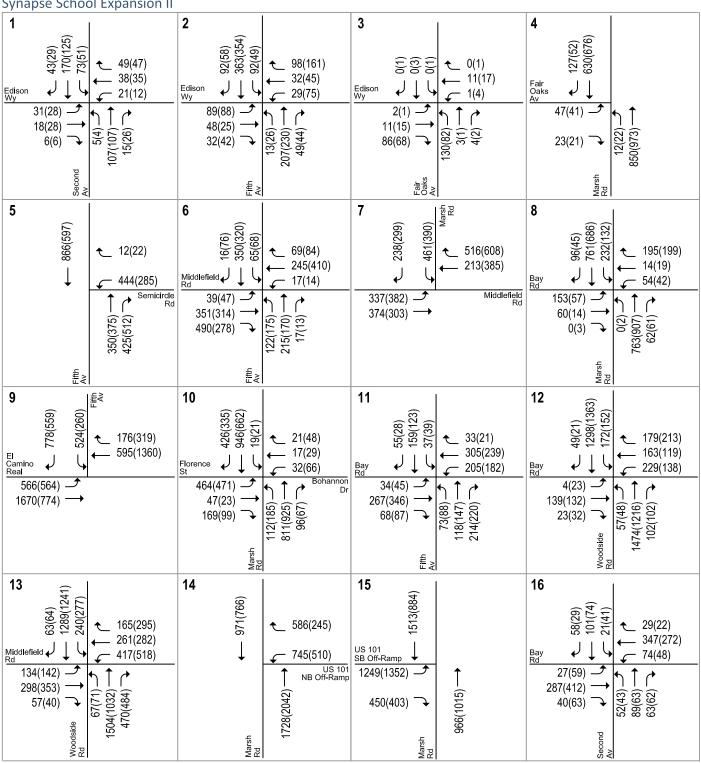
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XX(XX) =AM(PM) Peak-Hour Trips









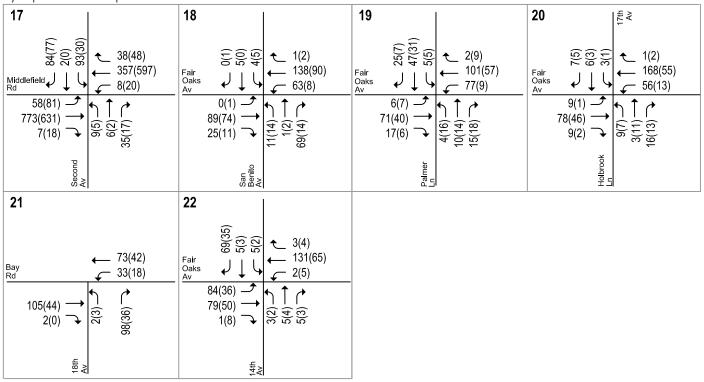
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XX(XX) =AM(PM) Peak-Hour Traffic Volumes

Figure 9 **Existing Plus Project Traffic Volumes**







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Table 5
Existing Plus Project Intersection Levels of Service

					Existing			Ex	ct		
				Aver		Wor	st²	Avera		Wor	
			Peak	Delay		Delay		Delay		Delay	
ID	Intersection (Jurisdiction)	Control	Hour	(sec.)	LOS	(sec.)	LOS	(sec.)	LOS	(sec.)	LOS
1	2nd Ave and Edison Wy	AWSC	AM	9.1	Α	9.8	Α	9.2	Α	9.9	Α
	(San Mateo County)		PM	8.5	Α	8.9	Α	8.5	Α	8.9	Α
2	5th Ave and Edison Wy	AWSC	AM	18.3	С	24.9	С	20.1	С	28.1	D
	(San Mateo County)		PM	18.8	С	25.0	С	19.3	С	25.8	D
3	Fair Oaks Ave and Edison Wy	owsc	AM			9.5	Α			9.6	Α
	(San Mateo County)		PM			9.4	Α			9.4	Α
4	Fair Oaks Ave and Marsh Rd	owsc	AM			16.9	С			17.3	С
	(San Mateo County)		PM			18.8	С			18.9	С
5	5th Ave and Semicircle Rd	Signal	AM	7.3	Α	10.1	Α	7.3	Α	10.2	В
	(San Mateo County)		PM	5.4	Α	8.7	Α	5.4	Α	8.7	Α
6	5th Ave and Middlefield Rd	Signal	AM	24.9	С	36.8	D	25.5	С	37.0	D
	(San Mateo County)		PM	26.2	С	37.4	D	26.4	С	37.6	D
7	Marsh Rd and Middlefield Rd	Signal	AM	29.3	С			29.5	С		
	(Atherton)		PM	32.1	С			32.2	С		
8	Marsh Rd and Bay Rd	Signal	AM	24.1	С			24.2	С		
	(Menlo Park)		PM	33.2	С			33.2	С		
9	5th Ave and El Camino Real	Signal	AM	19.2	В	34.3	С	19.4	В	34.6	С
	(San Mateo County)		PM	19.7	В	31.9	С	19.8	В	32.0	С
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		
40	(Redwood City)	0. 1	PM	47.1	D			47.2	D		
13		Signal	AM	41.9	D			42.2	D		
4.4	(Redwood City/CMP)	Ciana al	PM	35.3	D			35.3	D		
14		Signal	AM	17.6	В			17.6	В		
15	(Menlo Park)	Cianal	PM	13.5	В			13.5	В		
15	Marsh Rd and US 101 SB Off-ramp	Signal	AM	17.4	В			17.4	В		
16	(Menlo Park)	AWSC	PM	17.8	В			17.8	В		
16	2nd Ave and Bay Rd (Redwood City)	AVVSC	AM PM	12.7 12.6	B B			12.8 12.6	B B		
17	2nd Ave and Middlefield Rd	TWSC		12.0	Ь	40.0	_	12.0	Ь	43.2	_
17	(San Mateo County)	TWSC	AM PM			40.9 26.3	E D			43.2 26.3	E D
1Ω	San Benito Ave and Fair Oaks Ave	TWSC	AM			11.9	В			12.2	В
10	(San Mateo County)	10000	PM			9.7	А			9.7	A
10	Palmer Ln and Fair Oaks Ave	TWSC	AM			11.5	В			11.6	В
10	(San Mateo County)	1 1 1 0 0	PM			9.9	A			9.9	A
20	Holbrook Ln and Fair Oaks Ave	TWSC	AM			10.7	В			10.8	В
20	(San Mateo County)	1 1 1 0 0	PM			9.3	A			9.3	A
	(Jan Maioo Journey)		1 171			0.0	,,			0.0	7.



				Existing			Existing ·	+ Projec	:t
				Average ¹ Worst ²		Average ¹	Wor	st ²	
			Peak	Delay	Delay		Delay	Delay	
ID	Intersection (Jurisdiction)	Control	Hour	(sec.) LOS	(sec.)	LOS	(sec.) LOS	(sec.)	LOS
21	18th Ave and Bay Rd	OWSC ³	AM		9.3	A		9.3	A
22	(San Mateo County) 14th Avee and Fair Oaks Ave	TWSC	PM AM		8.7 10.8	A B		8.7 11.0	A B
22	(San Mateo County)	1000	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.

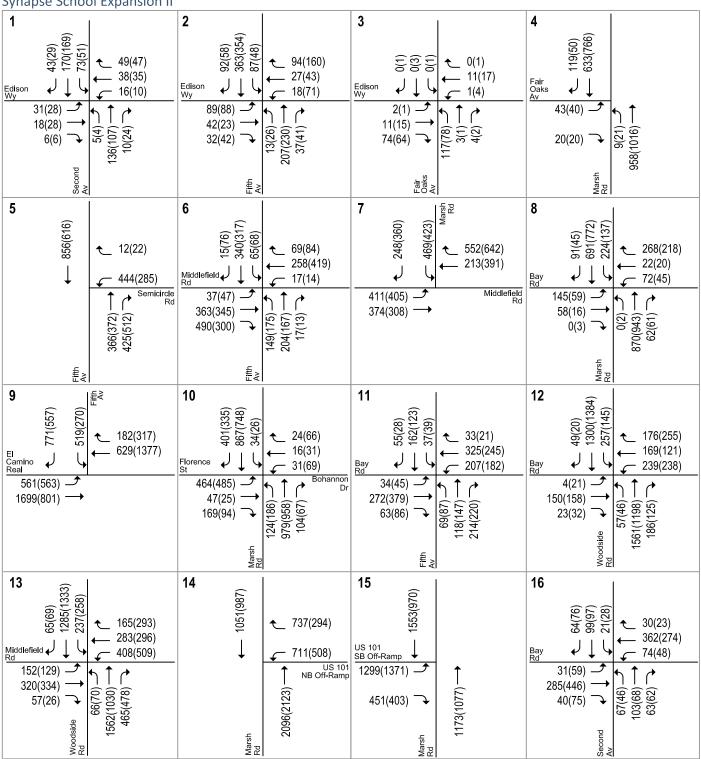
Background Intersection Levels of Service

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.





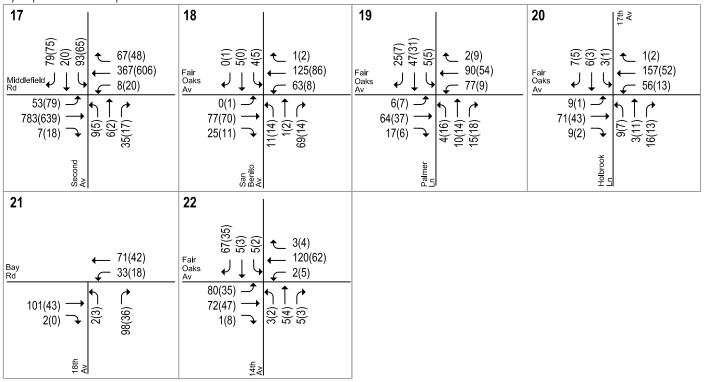
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XX(XX) =AM(PM) Peak-Hour Traffic Volumes

Figure 10 **Background Traffic Volumes**







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Table 6
Intersection Levels of Service Under Background Conditions

					Exis	sting		Ва	ckgro	ound	
				Aver		Wor	st²	Aver		Wor	st²
			Peak	Delay		Delay		Delay		Delay	
ID	Intersection (Jurisdiction)	Control	Hour	(sec.)	LOS	(sec.)	LOS	(sec.)	LOS	(sec.)	LOS
1	2nd Ave and Edison Wy	AWSC	AM	9.1	Α	9.8	Α	9.3	Α	9.9	Α
	(San Mateo County)		PM	8.5	Α	8.9	Α	8.8	Α	9.4	Α
2	5th Ave and Edison Wy	AWSC	AM	18.3	С	24.9	С	18.3	С	24.9	С
	(San Mateo County)		PM	18.8	С	25.0	С	18.8	С	25.0	С
3	Fair Oaks Ave and Edison Wy (San Mateo County)	OWSC	AM PM			9.5 9.4	A A			9.5 9.4	A A
4	Fair Oaks Ave and Marsh Rd	owsc	AM			16.9	C			18.0	C
-	(San Mateo County)		PM			18.8	С			20.4	С
5	5th Ave and Semicircle Rd	Signal	AM	7.3	Α	10.1	Α	7.2	Α	10.1	В
	(San Mateo County)	· ·	PM	5.4	Α	8.7	Α	5.4	Α	8.8	Α
6	5th Ave and Middlefield Rd	Signal	AM	24.9	С	36.8	D	25.4	С	36.7	D
	(San Mateo County)		PM	26.2	С	37.4	D	26.4	С	38.2	D
7	Marsh Rd and Middlefield Rd	Signal	AM	29.3	С			32.6	С		
	(Atherton)		PM	32.1	С			34.0	С		
8	Marsh Rd and Bay Rd	Signal	AM	24.1	С			25.2	С		
	(Menlo Park)		PM	33.2	С			32.2	С		
9	5th Ave and El Camino Real	Signal	AM	19.2	В	34.3	С	19.4	В	34.3	С
	(San Mateo County)		PM	19.7	В	31.9	С	19.9	В	32.2	С
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		
12	(Redwood City)	Signal	PM AM	29.1 81.2	D F			36.1	E F		
12	Woodside Rd and Bay Rd (Redwood City)	Signal	PM	47.1	r D			124.7 95.1	F		
13	• • • • • • • • • • • • • • • • • • • •	Signal	AM	41.9	D			43.9	D		
13	(Redwood City/CMP)	Signal	PM	35.3	D			35.0	D		
14		Signal	AM	17.6	В			25.0	С		
	(Menlo Park)	ga.	PM	13.5	В			13.8	В		
15	Marsh Rd and US 101 SB Off-ramp	Signal	AM	17.4	В			19.0	В		
	(Menlo Park)	3	РМ	17.8	В			17.9	В		
16		AWSC	AM	12.7	В			13.7	В		
	(Redwood City)		PM	12.6	В			14.2	В		
17	2nd Ave and Middlefield Rd	TWSC	AM			40.9	Е			46.0	Е
	(San Mateo County)		PM			26.3	D			57.9	F
18	San Benito Ave and Fair Oaks Ave	TWSC	AM			11.9	В			11.9	В
	(San Mateo County)		PM			9.7	Α			9.7	Α
19	Palmer Ln and Fair Oaks Ave	TWSC	AM			11.5	В			11.5	В
	(San Mateo County)		PM			9.9	Α			9.9	Α
20	Holbrook Ln and Fair Oaks Ave	TWSC	AM			10.7	В			10.7	В
	(San Mateo County)		PM			9.3	Α			9.3	Α



				Existing			Backgro	und	
				Average ¹ Worst ²		Average ¹	Wor	st ²	
			Peak	Delay	Delay		Delay	Delay	
ID	Intersection (Jurisdiction)	Control	Hour	(sec.) LOS	(sec.)	LOS	(sec.) LOS	(sec.)	LOS
21	18th Ave and Bay Rd	OWSC ³	AM		9.3	Α		9.3	Α
	(San Mateo County)		PM		8.7	Α		8.7	Α
22	14th Avee and Fair Oaks Ave	TWSC	AM		10.8	В		10.8	В
	(San Mateo County)		PM		9.8	Α		9.8	Α

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

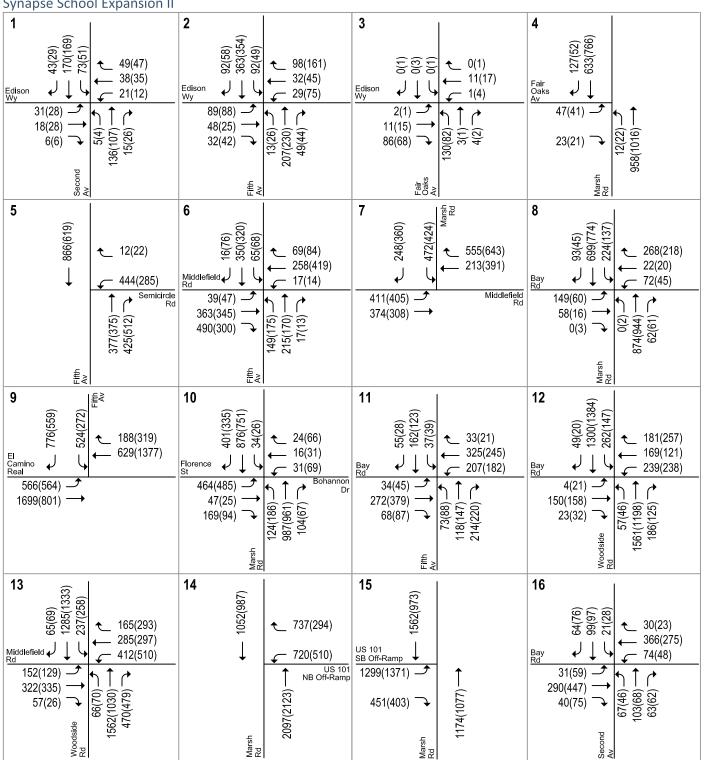
The project trip estimates, as previously described in Chapter 3 (see Table 4), were added to the background traffic volumes (described in Chapter 4) to derive the background plus project traffic volumes (see Figure 11).

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.



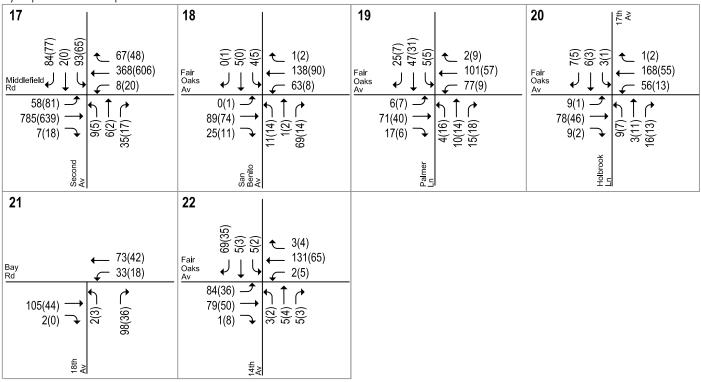


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Table 7
Background plus Project Intersection Levels of Service

				Ва	ckgro	und		Back	(groun	nd + Project		
				Avera		Wor	st ²	Aver		Wor		
			Peak	Delay		Delay		Delay		Delay		
ID	Intersection (Jurisdiction)	Control	Hour	(sec.)	LOS	(sec.)	LOS	(sec.)	LOS	(sec.)	LOS	
1	2nd Ave and Edison Wy	AWSC	AM	9.3	Α	9.9	Α	9.3	Α	10.0	Α	
	(San Mateo County)		PM	8.8	Α	9.4	Α	8.9	Α	9.4	Α	
2	5th Ave and Edison Wy	AWSC	AM	18.3	С	24.9	С	20.1	С	28.1	D	
	(San Mateo County)		PM	18.8	С	25.0	С	19.3	С	25.8	D	
3	Fair Oaks Ave and Edison Wy	owsc	AM			9.5	Α			9.6	Α	
	(San Mateo County)	014/00	PM			9.4	A			9.4	A	
4	Fair Oaks Ave and Marsh Rd	owsc	AM			18.0	С			18.4	С	
_	(San Mateo County)	0: 1	PM		•	20.4	С	7.0		20.5	С	
5	5th Ave and Semicircle Rd	Signal	AM	7.2	A	10.1	В	7.3	A	10.2	В	
_	(San Mateo County)	0:	PM	5.4	A	8.8	A	5.4	A	8.8	A	
6	5th Ave and Middlefield Rd	Signal	AM	25.4	С	36.7	D	26.1	С	37.2	D	
7	(San Mateo County) Marsh Rd and Middlefield Rd	Cianal	PM	26.4	C C	38.2	D	26.6	C C	38.3	D	
7		Signal	AM	32.6	С			32.8	C			
8	(Atherton) Marsh Rd and Bay Rd	Signal	PM AM	34.0 25.2	С			34.0 25.3	С			
0	(Menlo Park)	Signal	PM	32.2	С			32.2	С			
9	5th Ave and El Camino Real	Signal	AM	19.4	В	34.3	С	19.6	В	34.6	С	
3	(San Mateo County)	Olgriai	PM	19.9	В	32.2	C	20.0	В	32.5	C	
10	Marsh Rd and Florence St	Signal	AM	36.4	D	JZ.Z	- C	36.5	D	JZ.J		
10	(Menlo Park)	Olgilai	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)	- 13	РМ	95.1	F			95.2	F			
13		Signal	AM	43.9	D			44.1	D			
	(Redwood City/CMP)	Ū	РМ	35.0	D			35.1	D			
14	Marsh Rd and US 101 NB Off-ramp	Signal	AM	25.0	С			25.1	С			
	(Menlo Park)		PM	13.8	В			13.9	В			
15	Marsh Rd and US 101 SB Off-ramp	Signal	AM	19.0	В			19.1	В			
	(Menlo Park)		PM	17.9	В			17.9	В			
16	2nd Ave and Bay Rd	AWSC	AM	13.7	В			13.8	В			
	(Redwood City)		PM	14.2	В			14.3	В			
17	2nd Ave and Middlefield Rd	TWSC	AM			46.0	Ε			48.9	Ε	
	(San Mateo County)		PM			57.9	F			58.5	F	
18	San Benito Ave and Fair Oaks Ave	TWSC	AM			11.9	В			12.2	В	
	(San Mateo County)		PM			9.7	Α			9.7	Α	
19	Palmer Ln and Fair Oaks Ave	TWSC	AM			11.5	В			11.6	В	
	(San Mateo County)		PM			9.9	Α			9.9	Α	
20	Holbrook Ln and Fair Oaks Ave	TWSC	AM			10.7	В			10.8	В	
	(San Mateo County)		PM			9.3	Α			9.3	Α	



Background + Project	
erage ¹ Wor	st ²
ay Delay	
c.) LOS (sec.)	LOS
9.3	Α
8.7	Α
11.0	В
9.8	Α
	erage ¹ Wor ay Delay c.) LOS (sec.) 9.3 8.7 11.0

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.

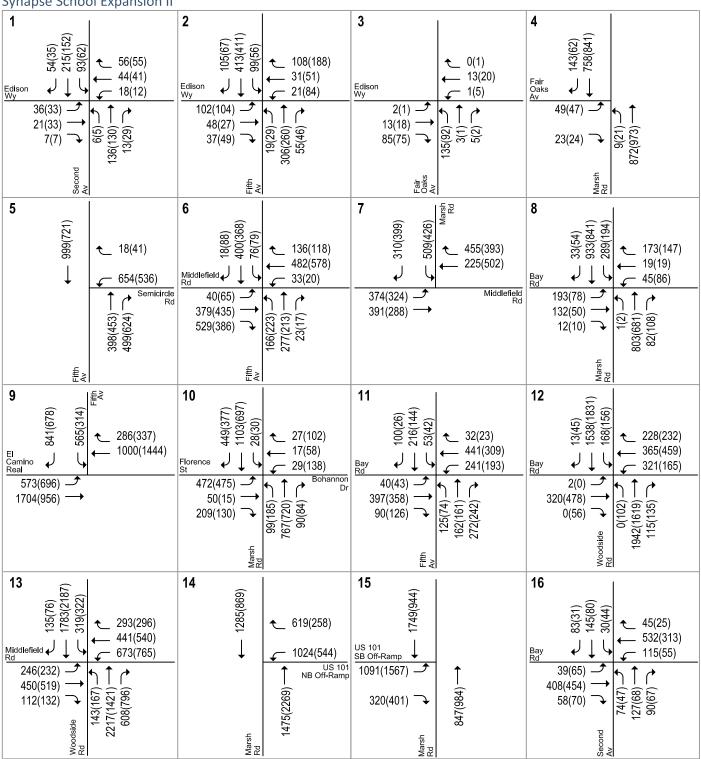
Cumulative Project Impacts

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.



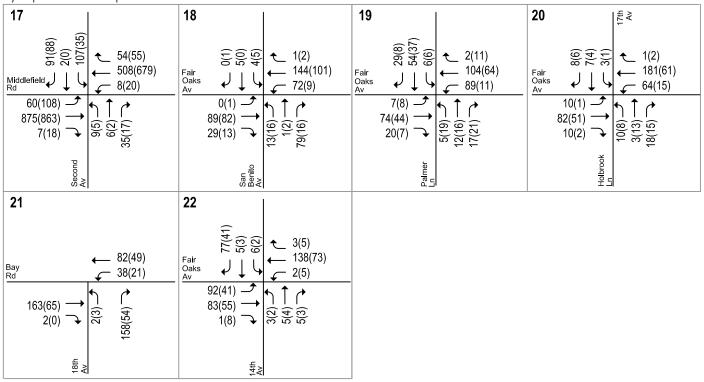


LEGEND







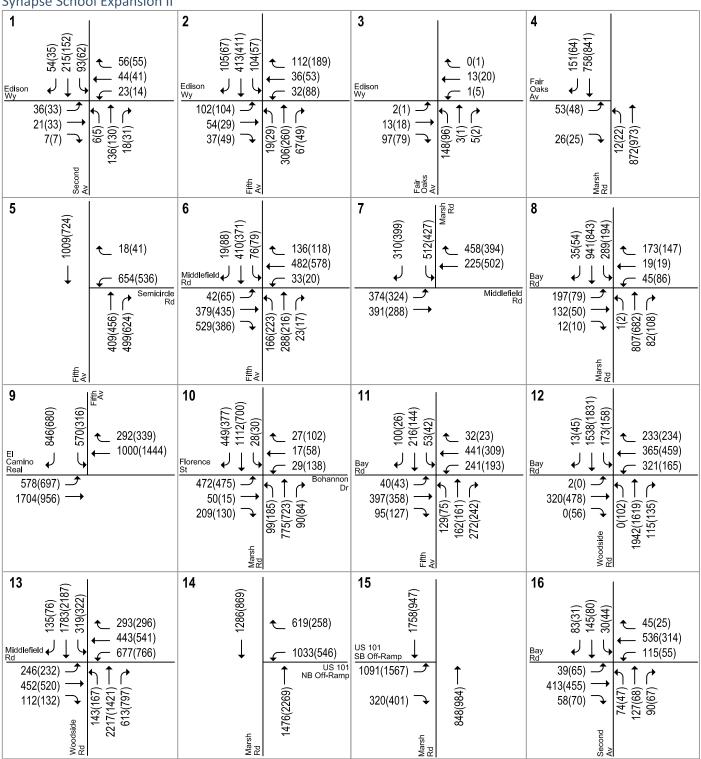


LEGEND





Synapse School Expansion II



LEGEND

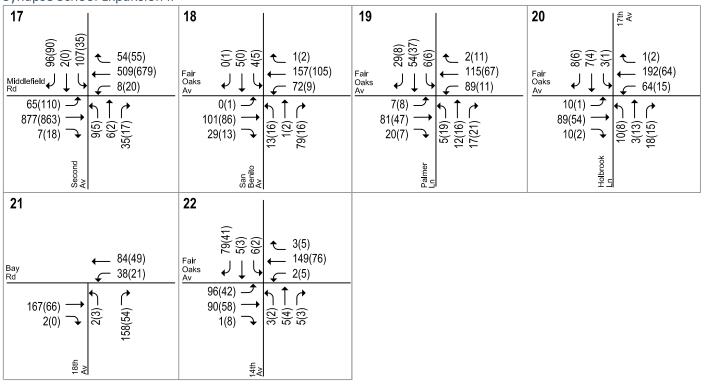
XX(XX) =AM(PM) Peak-Hour Traffic Volumes







Synapse School Expansion II



LEGEND

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





Table 8 Intersection Levels of Service Under Cumulative Conditions

				Cu	ımulat	ive		Cum	ulativ	e + Proj	ect
				Avera		Wor	st ²	Avera		Wor	
			Peak	Delay		Delay		Delay		Delay	
ID	Intersection (Jurisdiction)	Control	Hour	(sec.)	LOS	(sec.)	LOS	(sec.)	LOS	(sec.)	LOS
1	2nd Ave and Edison Wy	AWSC	AM	10.3	В	11.4	В	10.3	В	11.4	В
	(San Mateo County)		PM	9.1	Α	9.6	Α	9.1	Α	9.7	Α
2	5th Ave and Edison Wy	AWSC	AM	39.5	Ε	64.8	F	45.5	Е	78.0	Е
			Mitigated AM ⁵					41.0	Е	68.4	E
	(San Mateo County)	014/00	PM	38.5	Е	64.2	F	40.3	Е	68.1	F
3	Fair Oaks Ave and Edison Wy (San Mateo County)	OWSC	AM PM			9.7 9.5	A A			9.8 9.6	A A
4	Fair Oaks Ave and Marsh Rd	owsc	AM			19.0	C			19.5	C
-	(San Mateo County)	00	PM			21.7	С			21.9	С
5	5th Ave and Semicircle Rd	Signal	AM	14.6	В	22.6	С	14.7	В	22.8	С
	(San Mateo County)		PM	9.0	Α	12.0	В	9.0	Α	12.1	В
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	С			32.9	С		
0	(Atherton) Marsh Rd and Bay Rd	Signal	PM AM	38.3 25.6	D C			38.4 25.7	D C		
8	(Menlo Park)	Signal	PM	33.5	С			33.5	С		
9	5th Ave and El Camino Real	Signal	AM	25.7	С	43.9	D	26.2	С	45.4	D
	(San Mateo County)	- 19.1	PM	26.5	C	43.0	D	26.7	С	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	В			20.2	С		
	(Redwood City)		PM	13.4	В			13.4	В		
12	Woodside Rd and Bay Rd	Signal	AM	90.6	F			91.7	F		
12	(Redwood City) Woodside Rd and Middlefield Rd	Cianal	PM AM	122.7	F			122.9	F		
13	(Redwood City/CMP)	Signal	PM	117.1 127.3	F			117.6 127.6	F		
14	Marsh Rd and US 101 NB Off-ramp	Signal	AM	19.8	В			19.9	В		
	(Menlo Park)	Ü	PM	15.8	В			15.9	В		
15	Marsh Rd and US 101 SB Off-ramp	Signal	AM	19.5	В			19.6	В		
	(Menlo Park)		PM	19.7	В			19.7	В		
16	2nd Ave and Bay Rd	AWSC	AM	28.3	D			28.7	D		
	(Redwood City)		PM	14.1	В		_	14.2	В		
17	2nd Ave and Middlefield Rd	TWSC	AM			155.5	F			167.3	F
	(San Mateo County)		Mitigated AM ⁵ PM			62.7	F			159.1 64.1	F F
18	San Benito Ave and Fair Oaks Ave	TWSC	AM			12.6	В			12.9	В
.5	(San Mateo County)		PM			9.9	A			10.0	В
19		TWSC	AM			12.1	В			12.3	В
	(San Mateo County)		PM			10.1	В			10.2	В
20	Holbrook Ln and Fair Oaks Ave	TWSC	AM			11.1	В			11.2	В
	(San Mateo County)		PM			9.4	Α			9.5	Α



				Cumulat	ive		Cumulativ	e + Proj	ect
				Average ¹	Wor	st ²	Average ¹	Wor	st ²
			Peak	Delay	Delay		Delay	Delay	
ID	Intersection (Jurisdiction)	Control	Hour	(sec.) LOS	(sec.)	LOS	(sec.) LOS	(sec.)	LOS
21	18th Ave and Bay Rd	OWSC ³	AM		10.1	В		10.1	В
	(San Mateo County)		PM		8.9	Α		8.9	Α
22	14th Avee and Fair Oaks Ave	TWSC	AM		11.3	В		11.5	В
	(San Mateo County)		PM		10.0	В		10.0	В

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

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

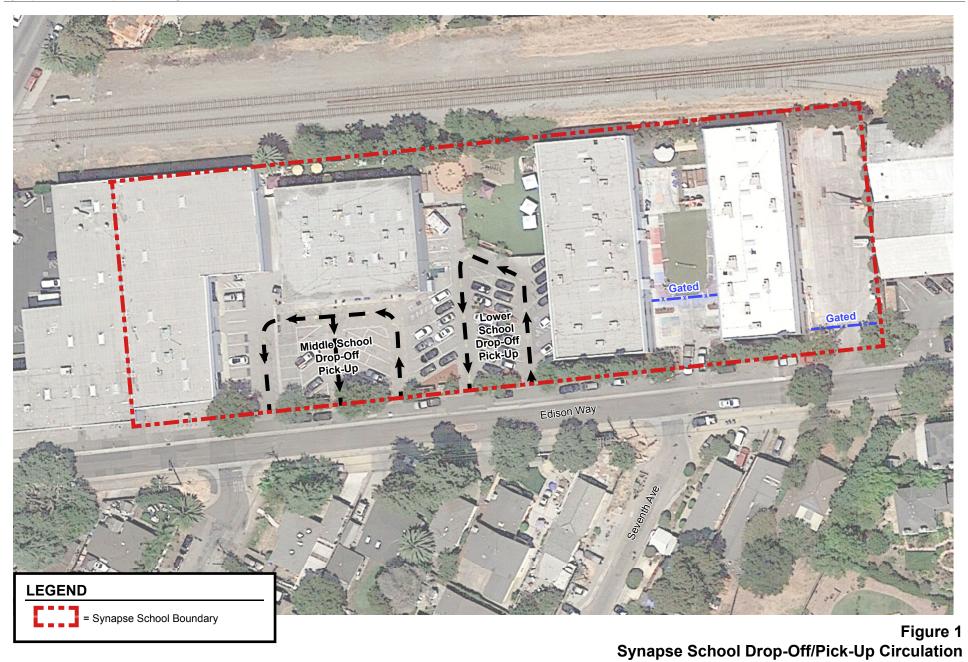
	AM P	eak-Hour	Trips
Date	Total	ln	Out
10/10/18 (Wed)	253	141	112
10/18/18 (Thu)	287	155	132
10/23/18 (Tue)	268	145	123
Average	269	147	122

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.

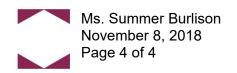
In the morning, the drop-off vehicle queue occasionally extended out of the parking lot by one to two vehicles, which blocked the shoulder/parking lane but did not block the westbound traffic on Edison Way. Most of the time, the drop-off traffic moved efficiently and smoothly within the parking lot.

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.









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

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

870 Castlewood Dr. #1 Los Gatos, CA 95032

Phone 408-826-9673 Fax 408-877-1625

	Drivew	ay 1 & 2	Drive	eway 3		Drive	eway 4		Drivew	ay 5 & 6	Drive	eway 7		On-	Street			
Start Time	IN	OUT	IN	OUT		IN	OUT	1	IN	OUT	IN	OUT	7 [IN	OUT			
7:00	0	0	0	0		0	0		0	0	0	0		0	0			
7:15	0	0	0	0	1	0	0	1	0	0	4	0	7 [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	1	0	0	1	2	0	9	0	7 [0	0			
8:15	14	2	5	0		0	0		6	0	14	0	7	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	7	1	1			
	9 at	9AM	5 at	9AM	_		-	_	4 at	9AM	14 a	t 9AM					Parking	32
																Hourly		
Peak Hour	_															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	7 [0	0	37		
7:30 - 8:30	45	21	5	0		0	0		13	7	9	0	7 [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

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

AUTO-CENSUS

Traffic Monitoring and Analysis 870 Castlewood Dr. #1

Los Gatos, CA 95032 Phone 408-826-9673 Fax 408-877-1625

	Drivewa	ay 1 & 2	Drive	way 3		Drive	way 4		Drivew	ay 5 & 6	Drive	way 7		On-	Street				
Start Time	IN	OUT	IN	OUT	1	IN	OUT		IN	OUT	IN	OUT	1 [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	1 [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	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	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	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 a	9AM						Parking	44
																	Hourly		
Peak Hour					_			_									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

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

AUTO-CENSUS

Traffic Monitoring and Analysis 870 Castlewood Dr. #1

Los Gatos, CA 95032 Phone 408-826-9673 Fax 408-877-1625

	Drivewa	ay 1 & 2	Drive	way 3		Drive	way 4		Drivew	ay 5 & 6	Drive	eway 7		On-	Street				
Start Time	IN	OUT	IN	OUT		IN	OUT		IN	OUT	IN	OUT		IN	OUT				
7:00	0	0	0	0	Ī	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	Ī	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	Ī	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	7 [1	1				
9:00	78	63	5	0		0	0		63	55	15	3		4	4				
	1 car a	at 9AM	5 at	9AM	_				11 a	t 9AM	12 a	t 9AM						Parking	29
																Ho	ourly		
Peak Hour																To	otals		
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	ĺ	
7:30 - 8:30	47	23	2	0		0	0		22	14	10	1	7 [0	0	1	19	ĺ	
7:45 - 8:45	70	48	1	0		0	0		38	32	9	2	7 I	1	1	2	202	Ĭ	
8:00 - 9:00	73	62	0	0		0	0		59	55	9	2	7 [4	4	2	268	ĺ	
	-	•	•	•	_			-	-		•							•	
Peak Volumes:	73	62	0	0		0	0		59	55	9	2	0	4	4	2	268	145	123

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

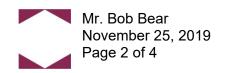
The school drop-off period is between 8:15 and 8:45 AM for all grades every day. The pick-up periods are 3:15-3:30 PM for the lower school and 3:30-3:45 PM for the middle school on Monday through Thursday. On Friday, the pick-up periods are 2:30-2:45 PM for the lower school and 2:45-3:00 PM for the middle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

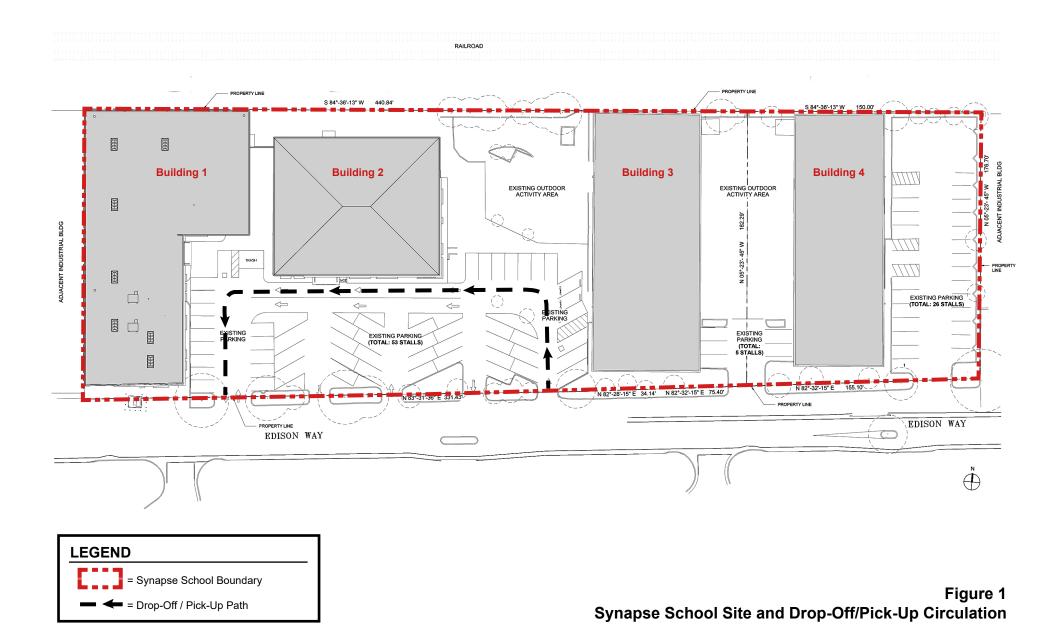
Table 1
Synapse School Trip Generation

	AM P	eak-Hour	Trips
Date	Total	ln	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

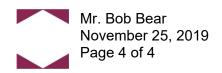
Figure 1 shows the drop-off/pick-up circulation at the school. The main parking lot is configured with a loading area in front of Building 2. All drop-off/pick-up vehicles enter the parking lot via the driveway in front of Building 3, drop off/pick-up students in front of Building 2, and exit the parking 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.









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

Kai-lin Kur

11/5/2019 Kilbee, Patti, Jo Synapse School Date: Counter:

Intersection Name: Weather: Fair

AUTO-CENSUS

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

	Drivew	ay 1 & 2	Drive	eway 3		Oriveway 4		Drivew	ay 5 & 6	Drive	eway 7		On-Street		27 to	otal spaces	19 total s	paces	
Start Time	IN	OUT	IN	OUT	IN.	OUT		IN	OUT	IN	OUT		IN OUT		DW	VY 5, 6,7	DWY	1 & 2	
7:00	0	0	0	0	C	0		0	0	0	0	i I	0 0			Lot total	L	ot total	
7:15	1	0	2	0	C	0		1	0	0	0		0 0		800	12	800	5	21
7:30	2	0	2	0	C	0		2	0	2	0		0 0		815	15	815	5	25
7:45	5	1	3	0	C	0		6	0	3	1		0 0		830	15	830	8	28
8:00	10	2	4	0	C	0		8	0	4	5		0 0		845	20	845	12	37
8:15	27	10	5	0	C	0		10	2	4	9		0 0		900	14	900	17	36
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	C	0		19	29	4	53		0 0				Queue		
																	830 0		
														Hourly			835 0		
Peak Hour							_							Totals			840 2		
7:00 - 8:00	10	2	4	0	C	0		8	0	4	5	l L	0 0	33			845 0		
7:15 - 8:15	26	10	3	0	C	0		9	2	4	9	l L	0 0	63			850 0		
7:30 - 8:30	51	13	3	0	C	0		12	8	2	32	l L	0 0	121			855 0		
7:45 - 8:45	99	20	2	0	C	0		13	20	1	58		0 0	213			900 0		
8:00 - 9:00	104	25	11	0	C	0		11	29	0	48	L	0 0	218					
Peak Volumes:	104	25	1	0	0	0		11	29	0	48		0 0	218	116	102			

Date:

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

AUTO-CENSUS

Traffic Monitoring and Analysis

5973 Larkstone Loop San Jose, Ca. 95123 Phone 408-533-3398

	Drivew	ay 1 & 2	Drive	eway 3	Drive	way 4		Drivewa	ay 5 & 6	Drive	way 7	On	-Street		27 1	total space:	s 19	total spaces	
Start Time	IN	OUT	IN	OUT	IN	OUT		IN	OUT	IN	OUT	IN	OUT		D	WY 5, 6,7		DWY 1 & 2	
7:00	0	0	0	0	0	0		0	0	0	0	0	0			Lot total		Lot total	
7:15	1	0	1	0	0	0		0	0	0	0	0	0		800	9	80	0 5	18
7:30	3	1	3	0	0	0		2	0	0	1	0	0		815	18	81	5 7	30
7:45	4	1	4	0	0	0		3	0	1	1	0	0		830	19	83	0 12	36
8:00	14	3	4	0	0	0	l i	9	0	3	2	0	0		845	24	84	5 16	45
8:15	22	5	5	0	0	0	l i	15	3	4	5	0	0		900	26	90	0 19	50
8:30	60	8	5	0	0	0	l i	22	13	4	21	0	0				_		
8:45	110	16	5	0	0	0	l i	33	38	4	48	0	0						
9:00	131	21	5	0	0	0	l i	34	43	4	59	0	0				Que	ue	
																	830 0		
														Hourly			835 0		
Peak Hour														Totals			840 3		
7:00 - 8:00	14	3	4	0	0	0		9	0	3	2	0	0	35			845 0		
7:15 - 8:15	21	5	4	0	0	0	l i	15	3	4	5	0	0	57			850 0		
7:30 - 8:30	57	7	2	0	0	0		20	13	4	20	0	0	123			855 0		
7:45 - 8:45	106	15	1	0	0	0		30	38	3	47	0	0	240			900 0		
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	144	4 11	8		

Date:

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

AUTO-CENSUS

Traffic Monitoring and Analysis

5973 Larkstone Loop San Jose, Ca. 95123 Phone 408-533-3398

	Drivewa	ay 1 & 2	Drive	way 3	Drive	way 4		Drivewa	ay 5 & 6	Drive	way 7	c	n-Stree	et		27	total space	s	19 total	spaces	
Start Time	IN	OUT	IN	OUT	IN	OUT		IN	OUT	IN	OUT	11	N O	UT		D	WY 5, 6,7		DW	Y 1 & 2	
7:00	0	0	0	0	0	0		0	0	0	0) (0			Lot total	_		Lot total	
7:15	2	0	1	0	0	0		1	0	0	0	() (0		800	11		800	5	20
7:30	3	0	2	0	0	0		1	0	1	0	() (0		815	15		815	13	33
7:45	4	0	3	0	0	0		3	0	4	0	() (0		830	21		830	11	37
8:00	11	1	4	0	0	0		6	1	4	0	() (0		845	27		845	15	47
8:15	26	2	5	0	0	0		11	3	5	5	() (0		900	20		900	9	34
8:30	34	6	5	0	0	0		18	9	5	12	() (0					•		
8:45	105	15	5	0	0	0		29	24	5	45	() (0							
9:00	122	23	5	0	0	0		31	35	5	56	() (0					Queue		
							-											830	0		
															Hourly			835	0		
Peak Hour															Totals			840	2		
7:00 - 8:00	11	1	4	0	0	0		6	1	4	0) (0	27			845	5		
7:15 - 8:15	24	2	4	0	0	0		10	3	5	5	() (0	53			850	0		
7:30 - 8:30	31	6	3	0	0	0		17	9	4	12	() (0	82			855	0		
7:45 - 8:45	101	15	2	0	0	0		26	24	1	45	() (0	214			900	0		
8:00 - 9:00	111	22	1	0	0	0		25	34	1	56) (0	250						
Peak Volumes:	111	22	1	0	0	0		25	34	1	56	0 () (0	250	13	8 11	2			

Appendix B Intersection Peak Hour Traffic Counts



Location: 1 EDISON WAY & 2ND AVE AM

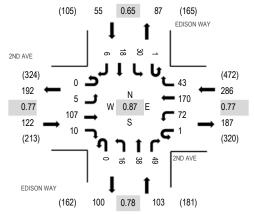
Date: Wednesday, September 5, 2018

Park Hours 07/30 AM 08/30 AM

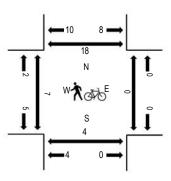
Peak Hour: 07:30 AM - 08:30 AM

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

	2ND AVE 2ND AVE								E	EDISON	WAY		E	EDISO	N WAY							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	lestriar	r Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

		East	bound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

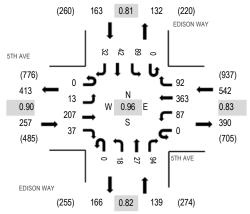


Location: 2 EDISON WAY & 5TH AVE AM Date: Wednesday, September 5, 2018

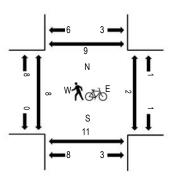
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval	5TH AVE Eastbound					5TH A Westb			E	EDISON Northb				EDISOI Southl	N WAY			Rollina	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

		Eastbound					oound			North	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

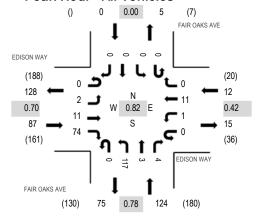


Location: 3 FAIR OAKS AVE & EDISON WAY AM

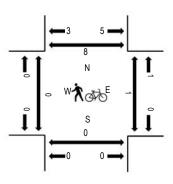
Date: Wednesday, September 5, 2018 **Peak Hour:** 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval		EDISON WAY Eastbound U-Turn Left Thru Right				DISON Westb			F/	AIR OAI Northb		<u> </u>	F	AIR OA Southl		E		Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru F	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	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

		East	bound			West	oound			North	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



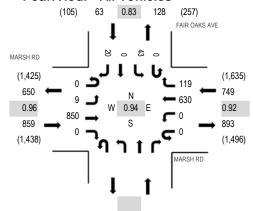
Location: 4 FAIR OAKS AVE & MARSH RD AM

Date: Wednesday, September 5, 2018

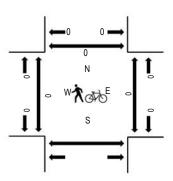
Peak Hour: 08:00 AM - 09:00 AM

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

late and		MARS				MARSH				ما ما المد ما ا			AIR OA		E			Dar		. 0:	
Interval		Eastb	ouna			Westb	buna			Northb	ouna		South	ouna			Rolling			n Crossing	
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South N	Iorth
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

		Eastbound					oound			North	bound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



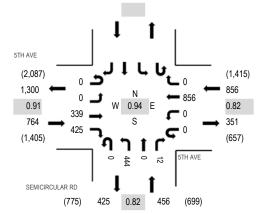
Location: 5 SEMICIRCULAR RD & 5TH AVE AM

Date: Wednesday, September 5, 2018

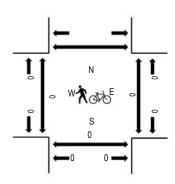
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

				5TH	AVE			/ICIRC		RD												
Interval		Eastb	ound			Westb	ound			Northb	ound		_	South	bound			Rolling	Ped	lestriar	n Cross	ings
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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	

		Eastbound					ound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

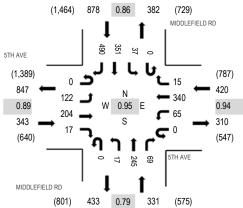


Location: 6 MIDDLEFIELD RD & 5TH AVE AM

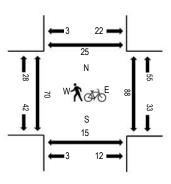
Date: Wednesday, September 5, 2018 Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		5TH AVE 5TH AVE							MII	DDLEF	IELD R	D	MI	DDLEF	IELD R	RD						
Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

		Eastbound					ound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



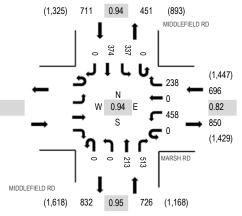
Location: 7 MIDDLEFIELD RD & MARSH RD AM

Date: Wednesday, September 5, 2018

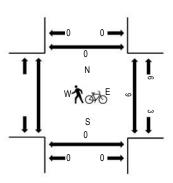
Peak Hour: 08:00 AM - 09:00 AM

Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

						MARSH	H RD		MI	DDLEFI	ELD RI)	MII	DDLEF	IELD R	:D						
Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	destrian	Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM					0	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

	Ea	stbound		West	ound			Northb	ound			South	bound			
Vehicle Type	U-Turn Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



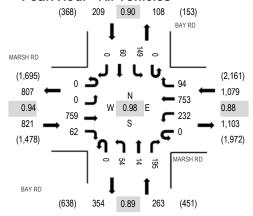
Location: 8 BAY RD & MARSH RD AM

Date: Wednesday, September 5, 2018

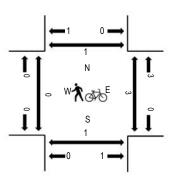
Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:30 AM - 08:45 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		MARS	HRD		- 1	MARSI	H RD			BAY	RD			BAY	RD							
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	oound			Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

		East	bound			West	ound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



Location: 9 EL CAMINO REAL & 5TH AVE AM

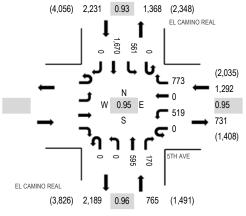
Date: Wednesday, September 5, 2018

Peak Hour: 07:30 AM - 08:30 AM

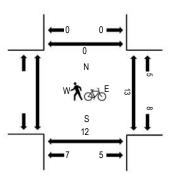
- - - - - -

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

						5TH A	VΕ		EL	CAMIN	O REA	ΛL	EL	CAMIN	NO REA	۸L						
Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	lestriar	Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM					0	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

	Eas	tbound			Westb	ound			North	oound			South	nbound		
Vehicle Type	U-Turn Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



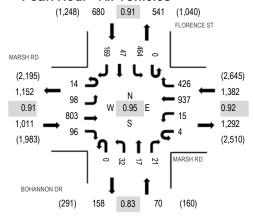
Location: 10 BOHANNON DR & MARSH RD AM

Date: Wednesday, September 5, 2018

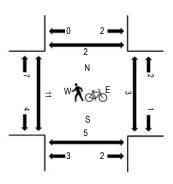
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		MARS	H RD		N	//ARSH	l RD		В	NAHC	ION DR		F	LORE	ICE ST							
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	ound			Rolling	Ped	lestriar	rossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	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

		East	bound			Westk	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



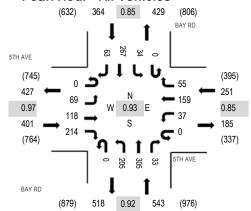
Location: 11 BAY RD & 5TH AVE AM

Date: Wednesday, September 5, 2018

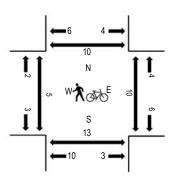
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval		5TH . Eastb				5TH A Westbo				BAY Northb				BAY Southb				Rollina	Ped	lestriar	n Crossir	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

		East	bound			Westk	ound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



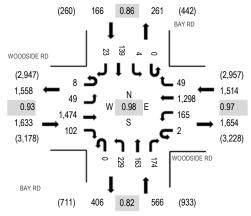
Location: 12 BAY RD & WOODSIDE RD AM

Date: Wednesday, September 5, 2018

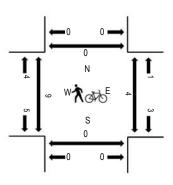
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

	W	WOODSIDE RD Eastbound				OODSI	DE RD			BAY	RD			BAY	RD							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru F	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	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

		Eas	tbound			West	bound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

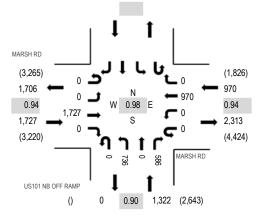


Location: 14 US101 NB OFF RAMP & MARSH RD AM

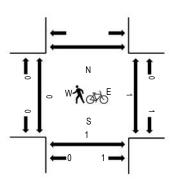
Date: Wednesday, September 5, 2018 **Peak Hour:** 07:30 AM - 08:30 AM

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

		MARS	H RD			MARS	H RD		US10	01 NB (OFF RA	MP										
Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Ped	lestria	n Cross	ings
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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	

		Eas	tbound			Westk	ound			North	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

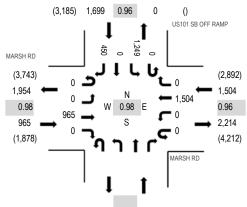


Location: 15 US101 SB OFF RAMP & MARSH RD AM

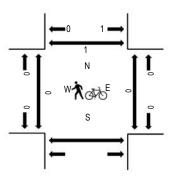
Date: Wednesday, September 5, 2018 **Peak Hour:** 07:30 AM - 08:30 AM

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

		MARS	H RD		- 1	MARSH	H RD					US10)1 SB (OFF RA	AMP						
Interval		Eastb	ound			Westb	ound			Northb	ound		South	oound			Rolling	Ped	lestriar	n Crossi	ings
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

				West	bound			North	bound			South	bound				
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turr	n Left	Thru	Right	Total
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

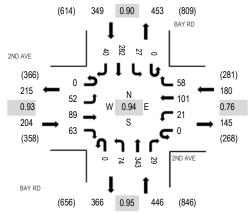


Location: 16 BAY RD & 2ND AVE AM **Date:** Wednesday, September 5, 2018

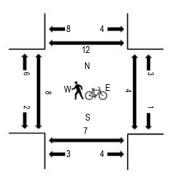
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		2ND	AVE			2ND A	AVE			BAY	RD			BAY	RD							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Ped	lestriar	r Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

		East	bound			Westk	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

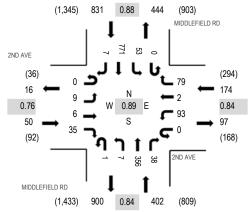


Location: 17 MIDDLEFIELD RD & 2ND AVE AM

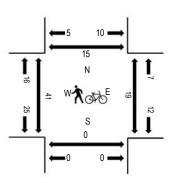
Date: Wednesday, September 5, 2018 **Peak Hour:** 07:15 AM - 08:15 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		2ND	AVE			2ND A	AVE		MI	DDLEF	IELD R	.D	MI	DDLEF	IELD R	.D						
Interval		Eastb	ound			Westb	ound			Northb	ound			South	ound			Rolling	Ped	lestriar	n Crossii	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

		East	bound			Westk	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

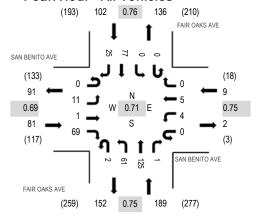


Location: 18 FAIR OAKS AVE & SAN BENITO AVE AM

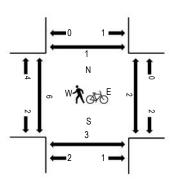
Date: Wednesday, September 5, 2018 **Peak Hour:** 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval	SA		BENITO AVE astbound Left Thru Right U			N BENI Westb	TO AVE		F.A	AIR OAI Northb			F	AIR OA Southl	KS AV	E		Rolling	Ped	lestriar	n Crossii	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru F	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	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

		East	bound			Westk	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

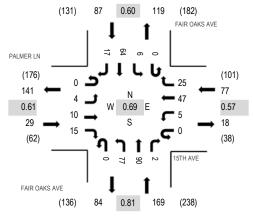


Location: 19 FAIR OAKS AVE & 15TH AVE AM

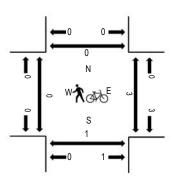
Date: Wednesday, September 5, 2018 **Peak Hour:** 07:30 AM - 08:30 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval		PALME Eastb				15TH / Westb			FA	AIR OAI Northb			F	AIR OA Southl		E		Rolling	Ped	lestriar	n Crossii	ngs
 Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

		East	bound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



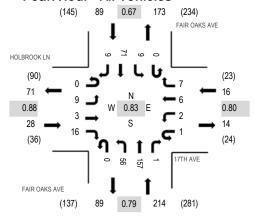
Location: 20 FAIR OAKS AVE & 17TH AVE AM

Date: Wednesday, September 5, 2018

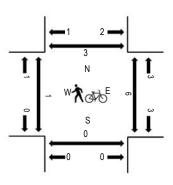
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval	Н	OLBR(Eastb	OOK LI ound	N		17TH A			FA	AIR OAI Northb			F	AIR OA Southl		Ξ		Rolling	Ped	lestriar	n Crossir	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

		East	bound			Westk	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

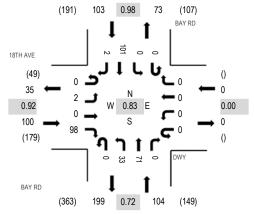


Location: 21 BAY RD & DWY AM

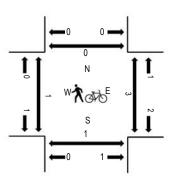
Date: Wednesday, September 5, 2018 **Peak Hour:** 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		18TH	AVE			DW.	Υ			BAY	RD			BAY	RD							
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	ound			Rolling	Ped	lestriar	n Crossii	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

		East	bound			West	oound			North	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

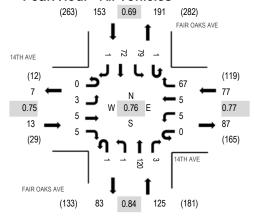


Location: 22 FAIR OAKS AVE & 14TH AVE AM

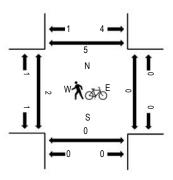
Date: Wednesday, September 5, 2018 **Peak Hour:** 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		14TH	AVE			14TH /	AVE		F.	AIR OAI	KS AVE		F/	AIR OA	KS AV	E						
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	ound			Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

		East	bound			West	oound			North	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

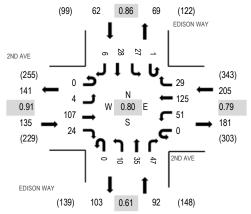


Location: 1 EDISON WAY & 2ND AVE PM **Date:** Wednesday, September 5, 2018

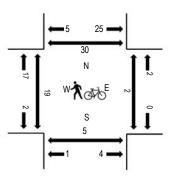
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		2ND	AVE			2ND A	AVE		E	EDISON	I WAY		E	EDISO	N WAY							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	ound			Rolling	Ped	lestriar	r Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

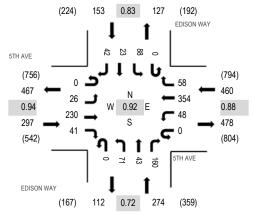


Location: 2 EDISON WAY & 5TH AVE PM **Date:** Wednesday, September 5, 2018

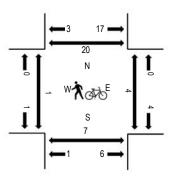
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

			5TH	AVE			5TH A	VΕ		E	EDISON	I WAY		1	EDISO	N WAY							
	Interval		Eastb	ound			Westb	ound			Northb	ound			South	ound			Rolling	Ped	destriar	n Crossi	ngs
_	Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
	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

		East	bound			Westk	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

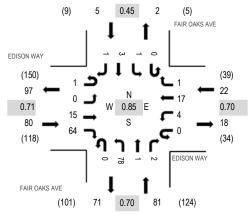


Location: 3 FAIR OAKS AVE & EDISON WAY PM

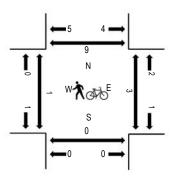
Date: Wednesday, September 5, 2018 **Peak Hour:** 02:45 PM - 03:45 PM

Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

	E	EDISOI	N WAY		E	DISON	WAY		F/	AIR OAI	KS AVE		F	AIR OA	KS AV	E						
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	oound			Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



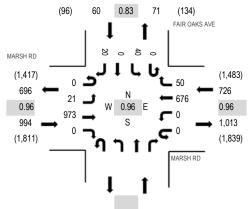
Location: 4 FAIR OAKS AVE & MARSH RD PM

Date: Wednesday, September 5, 2018

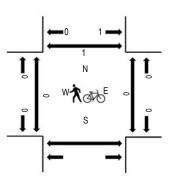
Peak Hour: 03:00 PM - 04:00 PM

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

		MARS	H RD			MARSH	H RD					F	AIR OA	KS AV	E						
Interval		Eastb	ound			Westb	ound			Northb	ound		South	oound			Rolling	Ped	lestriar	n Crossir	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

			West	oound			North	bound			South	bound					
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

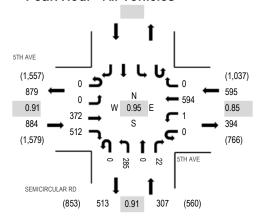


Location: 5 SEMICIRCULAR RD & 5TH AVE PM

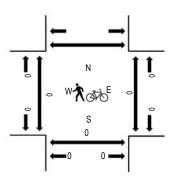
Date: Wednesday, September 5, 2018 **Peak Hour:** 03:00 PM - 04:00 PM

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		5TH .			5TH AVE Westbound					MCIRCI Northb		RD		South	oound			Rolling	Ped	destriar	n Crossi	ngs
 Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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	

		East	bound			Westk	oound			Northb	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



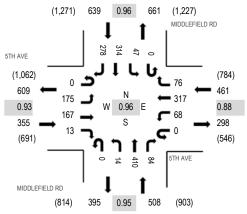
Location: 6 MIDDLEFIELD RD & 5TH AVE PM

Date: Wednesday, September 5, 2018

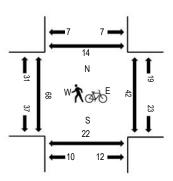
Peak Hour: 03:00 PM - 04:00 PM

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		5TH Eastb							MII	DDLEFI Northb		D		DDLEF Southb		D		D ::	Dod	loctrion	n Crossii	nac
Start Time	U-Turn	Left	Thru	Right	U-Turn			Right	U-Turn	Left		Right	U-Turn	Left	Thru	Right	Total	Rolling Hour	West		South	0
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

		East	bound			Westk	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



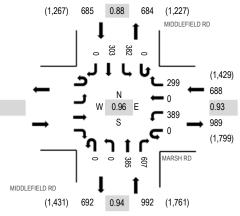
Location: 7 MIDDLEFIELD RD & MARSH RD PM

Date: Wednesday, September 5, 2018

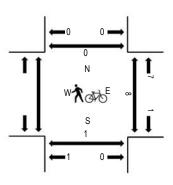
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

					I	MARSH	l RD		MII	DDLEFI	ELD R	D	MII	DDLEF	IELD R	.D						
Interval		Eastb	ound			Westb	ound			Northb	ound			South	ound			Rolling	Ped	destrian	Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
2:00 PM					0	110	0	67	0	0	62	128	0	71	59	0	497	2,092		0	0	0
2:15 PM					0	119	0	81	0	0	60	110	0	78	74	0	522	2,139		1	0	0
2:30 PM					0	110	0	65	0	0	67	142	0	74	66	0	524	2,233		1	0	0
2:45 PM					0	121	0	68	0	0	73	127	0	80	80	0	549	2,299		0	0	0
3:00 PM					0	103	0	75	0	0	75	136	0	100	55	0	544	2,365		1	0	0
3:15 PM					0	88	0	78	0	0	105	151	0	99	95	0	616			0	0	0
3:30 PM					0	96	0	69	0	0	98	167	0	79	81	0	590			3	0	0
3:45 PM					0	102	0	77	0	0	107	153	0	104	72	0	615			1	0	0

	Eas		Westb	ound			Northb	ound			South	bound				
Vehicle Type	U-Turn Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

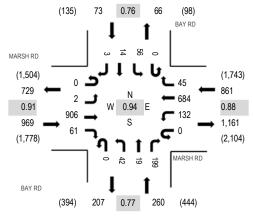


Location: 8 BAY RD & MARSH RD PM **Date:** Wednesday, September 5, 2018

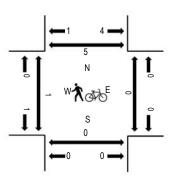
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

			MARS	HRD			MARSH	H RD			BAY	RD			BAY	RD							
	Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	destriar	n Crossi	ings
_	Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
	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

		Eastbound					oound			North	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



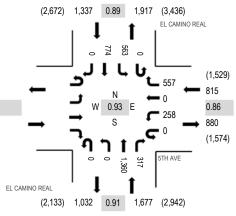
Location: 9 EL CAMINO REAL & 5TH AVE PM

Date: Wednesday, September 5, 2018

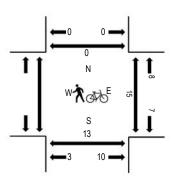
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

						5TH A	ΝE		EL	CAMIN	O REA	L	EL	CAMIN	NO REA	۸L						
Interval	Ea	astbo	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	destrian	Crossi	ngs
Start Time	U-Turn Le	eft	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	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

	East	tbound			Westb	ound			North	oound			South	bound		
Vehicle Type	U-Turn Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

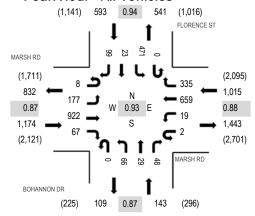


Location: 10 BOHANNON DR & MARSH RD PM

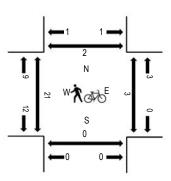
Date: Wednesday, September 5, 2018 **Peak Hour:** 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		MARS	HRD		I	MARSH	l RD		В	NAHC	ION DF	}	F	LORE	NCE ST							
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	oound			Rolling	Ped	lestriar	n Crossi	ngs
 Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			Westk	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

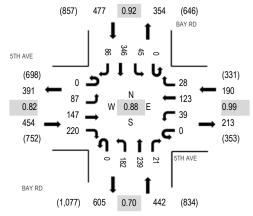


Location: 11 BAY RD & 5TH AVE PM **Date:** Wednesday, September 5, 2018

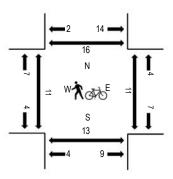
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		5TH	AVE			5TH A	VΕ			BAY	RD			BAY	RD							
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	ound			Rolling	Ped	destriar	n Crossi	ngs
 Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			Westk	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

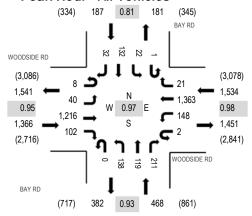


Location: 12 BAY RD & WOODSIDE RD PM

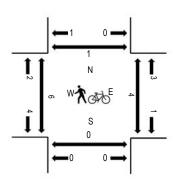
Date: Wednesday, September 5, 2018 **Peak Hour:** 02:45 PM - 03:45 PM

Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

	W	OODS	IDE RI)	W	OODSI	DE RD			BAY	RD			BAY	RD							
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	ound			Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru F	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	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

			West	bound			North	oound			South	bound					
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

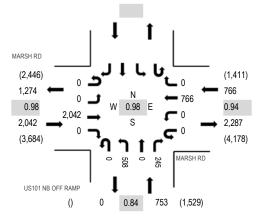


Location: 14 US101 NB OFF RAMP & MARSH RD PM

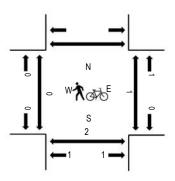
Date: Wednesday, September 5, 2018 **Peak Hour:** 03:00 PM - 04:00 PM

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

		MARS	H RD		- 1	MARSH	H RD		US10	01 NB (OFF RA	MP										
Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Ped	destriar	n Crossi	ings
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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	

		tbound			Westk	ound			North	oound			South	bound			
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

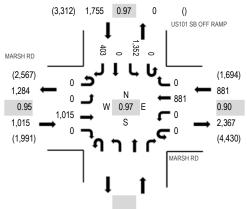


Location: 15 US101 SB OFF RAMP & MARSH RD PM

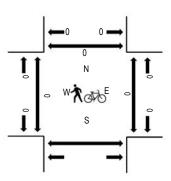
Date: Wednesday, September 5, 2018 **Peak Hour:** 02:45 PM - 03:45 PM

Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

			MARS	H RD			MARSH	H RD					US10)1 SB (OFF RA	MP						
	Interval		Eastb	ound			Westb	ound			Northb	ound		Southb	ound			Rolling	Ped	lestriar	Crossing	S
	Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South No	orth
-	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

		Eas	tbound			Westk	ound			North	bound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turr	n Left	Thru	Right	Total
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

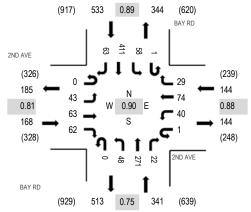


Location: 16 BAY RD & 2ND AVE PM **Date:** Wednesday, September 5, 2018

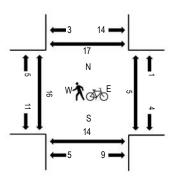
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval		2ND Eastb				2ND A				BAY Northb				BAY South				Rollina	Ped	lestriar	n Crossii	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

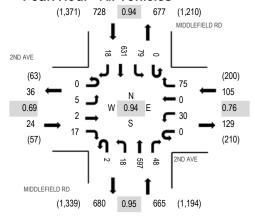


Location: 17 MIDDLEFIELD RD & 2ND AVE PM

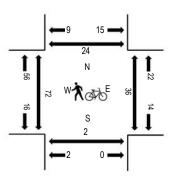
Date: Wednesday, September 5, 2018 **Peak Hour:** 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		2ND	AVE			2ND A	AVE		MI	DDLEF	ELD R	.D	MI	DDLEF	IELD R	RD						
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	oound			Rolling	Ped	lestriar	n Crossir	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			West	oound			North	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

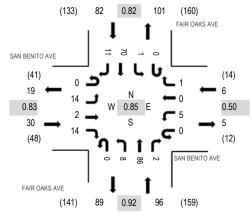


Location: 18 FAIR OAKS AVE & SAN BENITO AVE PM

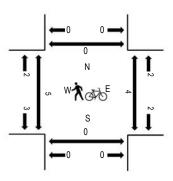
Date: Wednesday, September 5, 2018 **Peak Hour:** 03:00 PM - 04:00 PM

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

	SA	N BEN	IITO A\	/E	SAN	I BENI	TO AVE	Ξ	F.	AIR OAI	KS AVE		F	AIR OA	KS AV	E						
Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	destriar	n Crossii	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			West	oound			North	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

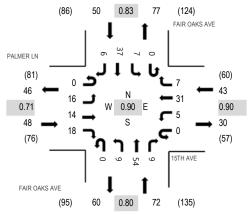


Location: 19 FAIR OAKS AVE & 15TH AVE PM

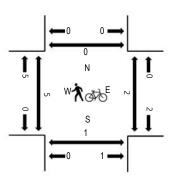
Date: Wednesday, September 5, 2018 **Peak Hour:** 02:45 PM - 03:45 PM

Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		PALMI	ER LN			15TH	AVE		F/	AIR OAI	KS AVE		F/	AIR OA	KS AV	E						
Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			West	oound			North	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

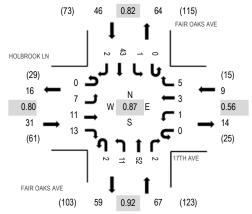


Location: 20 FAIR OAKS AVE & 17TH AVE PM

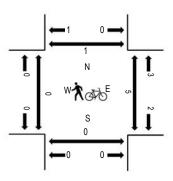
Date: Wednesday, September 5, 2018 **Peak Hour:** 02:45 PM - 03:45 PM

Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

	Н	OLBRO	OOK LI	V		17TH /	AVE		F	AIR OAI	KS AVE		F	AIR OA	KS AV	E						
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	oound			Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			West	oound			North	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



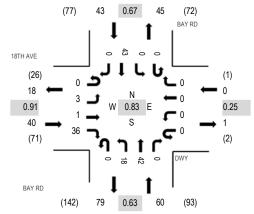
Location: 21 BAY RD & DWY PM

Date: Wednesday, September 5, 2018

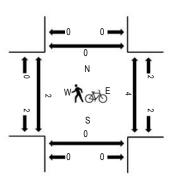
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		18TH				DW				BAY				BAY								
Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	destriar	n Crossii	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			West	oound			North	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

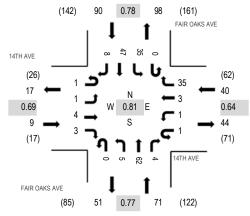


Location: 22 FAIR OAKS AVE & 14TH AVE PM

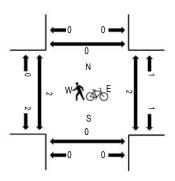
Date: Wednesday, September 5, 2018 **Peak Hour:** 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval		14TH Eastb				14TH / Westb			FA	AIR OAI Northb			F	AIR OA Southl		E		Rolling	Ped	lestriar	n Crossii	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			West	oound			North	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

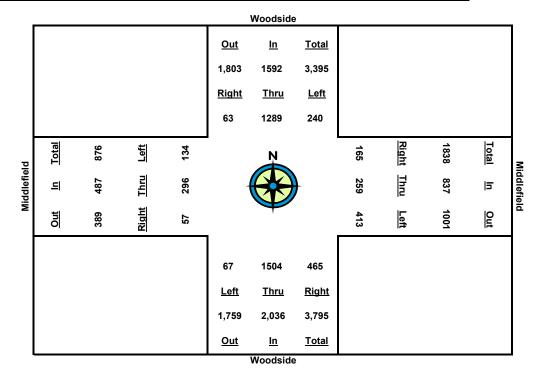
Traffic Monitoring and Analysis 870 Castlewood Dr. #1 Los Gatos, CA 95032

Phone 408-826-9673 Fax 408-877-1625

		Woo	dside			Middl	efield			Woo	dside		Middlefield				
		North A	pproach			East App	roach			South Ap	proach			West A	proach		
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

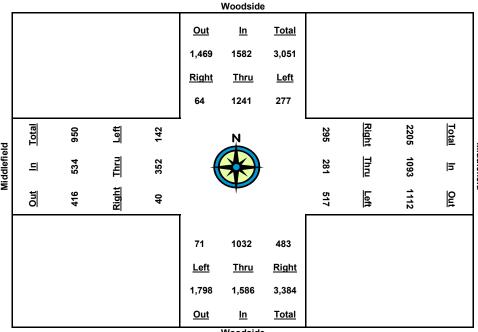
Traffic Monitoring and Analysis 870 Castlewood Dr. #1 Los Gatos, CA 95032

Phone 408-826-9673 Fax 408-877-1625

		Wood	dside			Midd	lefield			Woo	dside		Middlefield				
		North A	pproach			East App	roach			South Ap	proach			West A	pproach		
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



Woodside

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

870 Castlewood Dr. #1 Los Gatos, CA 95032

Phone 408-826-9673 Fax 408-877-1625

	Drivewa	ay 1 & 2	Drive	eway 3	_	Drive	way 4	Drivew	ay 5 & 6	Drive	way 7	On-	Street	
Start Time	IN	OUT	IN	OUT		IN	OUT	IN	OUT	IN	OUT	IN	OUT	
7:00	0	0	0	0	1	0	0	0	0	0	0	0	0	
7:15	0	0	0	0	1	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	1	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														Hourly Totals
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 Synapse School Intersection Name:

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

				sed			truction								
	Drivew	ay 1 & 2	Drive	way 3	_	Drive	eway 4	_	Drivew	ay 5 & 6	Drive	way 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	
															Hourly
Peak Hour															Totals
2:00 - 3:00	2	0	0	0	1	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 Intersection LOS	9.1
Intersection LOS	А

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	Α			Α			Α			А		

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	А	Α	Α	А	
HCM 95th-tile Q	0.6	0.2	0.5	1.6	

Intersection					
Intersection Delay, s/v Intersection LOS	eh18.3				
Intersection LOS	С				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach R	igh N B			SB			WB			EB			
Conflicting Lanes Right	1			1			1			1			
HCM Control Delay	12			11			12.5			24.9			
HCM LOS	В			В			В			С			

Lane	NBLn1	EBLn1\	NBLn1	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	В	В	В	С
HCM 95th-tile Q	1.9	1.2	0.9	7.8

Existing AM.syn Synchro 10 Report Hexagon 12/18/2018

Intersection												
Int Delay, s/veh	5.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	LDL	4	LDK	WDL	₩ 4	WDK	NDL	ND1 ↔	NDK	SDL	3BT	JUK
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	1100	1100	None	-	-	None	310p	310p	None	Jiop	Jiop -	None
Storage Length	_	_	TNOTIC	_	_	-	_	_	TVOTIC	_	_	-
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
IVIVIII I IOVV		- 11	77				- 117	J	7	- 0	- 0	
	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	-
1 3	2.218	-	-	2.218	-	-	3.518	4.018			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	312			- 3.0			Α.			A		
							, ,			,,		
Minor Lang/Major Mum	+ 1	\IDI n1	EDI	EDT	EDD	WDI	WDT	WDD	CDI n1			
Minor Lane/Major Mvm	t I	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR	2RTII I			
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	Α	-	A	Α	-	Α			
HCM 95th %tile Q(veh)		0.5	0	-	-	0	-	-	-			

Intersection						
Int Delay, s/veh	0.7					
		EDD	NDI	NDT	CDT	CDD
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥			4	↑	7
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	e, # 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
N A = 1 = -/N A1	N 4'		14-1-1		1-1-0	
	Minor2		Major1		/lajor2	
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			_		
Jiaye Z	410	-	-		_	-
Approach	EB		NB		SB	
HCM Control Delay, s	16.9		0.1		0	
HCM LOS	С					
Minor Lone /Maior M	o.t	NDI	NDT	FDI 1	CDT	CDD
Minor Lane/Major Mvm	nt	NBL		EBLn1	SBT	SBR
Capacity (veh/h)	nt	856	-	364	SBT -	SBR -
Capacity (veh/h) HCM Lane V/C Ratio		856 0.011	-	364 0.173	SBT - -	SBR -
Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s)		856 0.011 9.2	- - 0	364 0.173 16.9	-	-
Capacity (veh/h) HCM Lane V/C Ratio)	856 0.011	-	364 0.173	-	- -

Existing AM.syn Synchro 10 Report Hexagon 12/18/2018

-	•	•	<u></u>	~	<u> </u>	
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	¥	TI DIC	† ‡	TOIL .	UBL	↑ ↑
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
	1.00	1.00	U	1.00	1.00	U
Ped-Bike Adj(A_pbT) 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	1.00	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	0.00	2282	0.00	0.00	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	0.00	5.1	0.00	0.00	6.1
Incr Delay (d2), s/veh	1.4	0.0	0.1	0.0	0.0	0.1
	0.0	0.0	0.1	0.0	0.0	0.4
Initial Q Delay(d3),s/veh						
%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	В		A			A
Approach Vol, veh/h	457		339			856
Approach Delay, s/veh	10.1		5.2			6.6
Approach LOS	В		Α			Α
Timer	1	2	3	4	5	6
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+l1), s		3.7		8.5		7.1
Green Ext Time (p_c), s		2.1		0.1		4.2
4 – 7:		Z. I		U. I		4.∠
Intersection Summary						
HCM 2010 Ctrl Delay			7.3			
HCM 2010 LOS			Α			

	۶	→	•	•	-	•	•	†	<i>></i>	>	†	-√
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		₽₽	7		414			र्स	7		4	7
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	С	С	В	С		С	D		С	D		С
Approach Vol, veh/h		878			331			343			420	
Approach Delay, s/veh		16.9			21.0			36.4			35.4	
Approach LOS		В			C			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	<u> </u>	2	J	4	J			8				
9		39.0		25.1		6 39.0		28.6				
Phs Duration (G+Y+Rc), s 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+l1), 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			С									

•	→	←	•	<u> </u>	1	
EBL	EBT	WBT	WBR	SBL	SBR	
	1.00	1.00				
	10.7	7.5				
	1216	767				
			D		D	
	C	D		D		
1	2	3	4	5	6	7 8
	2		4	5	6	
	86.0		39.3	30.2	55.8	
	* 4.2		* 4.2	4.0	* 4.2	
	* 82		* 60	45.0	* 33	
	12.9		33.4	25.2	21.4	
	1.6		1.7	1.0	1.6	
		29.3				
		С				
	EBL 337 337 5 0 1.00 1.00 1863 337 1 1.00 2 371 0.21 1774 23.2 23.2 1.00 371 0.91 637 1.00 1.00 48.4 10.1 0.0 12.5 58.4 E	EBL EBT 337 374 337 374 5 2 0 0 1.00 1.00 1.00 1863 1863 337 374 1 1 1.00 1.00 2 2 371 1216 0.21 0.65 1774 1863 337 374 1774 1863 23.2 10.9 23.2 10.9 23.2 10.9 1.00 371 1216 0.91 0.31 637 1216 1.00 1.00 1.00 1.00 48.4 9.4 10.1 0.7 0.0 0.0 12.5 5.8 58.4 10.1 E B 711 33.0 C 1 2 86.0 *4.2 *82 12.9	EBL EBT WBT 337 374 213 337 374 213 5 2 6 0 0 0 0 1.00 1.00 1.00 1.00 1863 1863 1863 337 374 213 1 1 1 1.00 1.00 1.00 2 2 2 2 371 1216 767 0.21 0.65 0.41 1774 1863 1863 337 374 213 1774 1863 1863 23.2 10.9 9.5 23.2 10.9 9.5 1.00 371 1216 767 0.91 0.31 0.28 637 1216 767 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.01 0.00 1.02 1.05 5.8 5.1 58.4 10.1 25.4 E B C 711 726 33.0 14.8 C B 1 2 3 29.3	EBL EBT WBT WBR 1 1 1 1 337 374 213 513 337 374 213 513 5 2 6 16 0 0 0 0 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1863 1863 1863 1863 337 374 213 513 1 1 1 1 1.00 1.00 1.00 1.00 2 2 2 2 371 1216 767 1075 0.21 0.65 0.41 0.41 1774 1863 1863 1535 337 374 213 513 1774 1863 1863 1535 23.2 10.9 9.5 19.4 23.2 10.9 9.5 19.4 <td>EBL EBT WBT WBR SBL 337 374 213 513 458 337 374 213 513 458 5 2 6 16 7 0 0 0 0 0 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1863 1863 1863 1863 337 374 213 513 458 1 1 1 1 1 1 1.00 1.00 1.00 1.00 1.00 2 2 2 2 2 2 371 1216 767 1075 497 0.21 0.65 0.41 0.41 0.28 1774 1863 1863 1535 1774 337 374 213 513 458 1774 1863 1863 1535<td>EBL EBT WBT WBR SBL SBR 337 374 213 513 458 238 337 374 213 513 458 238 5 2 6 16 7 14 0 0 0 0 0 0 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1863 1863 1863 1863 1863 1863 3683 337 374 213 513 458 238 1 1 1 1 1 1 1 1 1.00 1.00 1.00 1.00 1.00 1.00 1.00 2</td></td>	EBL EBT WBT WBR SBL 337 374 213 513 458 337 374 213 513 458 5 2 6 16 7 0 0 0 0 0 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1863 1863 1863 1863 337 374 213 513 458 1 1 1 1 1 1 1.00 1.00 1.00 1.00 1.00 2 2 2 2 2 2 371 1216 767 1075 497 0.21 0.65 0.41 0.41 0.28 1774 1863 1863 1535 1774 337 374 213 513 458 1774 1863 1863 1535 <td>EBL EBT WBT WBR SBL SBR 337 374 213 513 458 238 337 374 213 513 458 238 5 2 6 16 7 14 0 0 0 0 0 0 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1863 1863 1863 1863 1863 1863 3683 337 374 213 513 458 238 1 1 1 1 1 1 1 1 1.00 1.00 1.00 1.00 1.00 1.00 1.00 2</td>	EBL EBT WBT WBR SBL SBR 337 374 213 513 458 238 337 374 213 513 458 238 5 2 6 16 7 14 0 0 0 0 0 0 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1863 1863 1863 1863 1863 1863 3683 337 374 213 513 458 238 1 1 1 1 1 1 1 1 1.00 1.00 1.00 1.00 1.00 1.00 1.00 2

Existing AM.syn Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4	7		4î		ň	∱ 1≽	
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	С			С		Α		D	D	В	Α	А
Approach Vol, veh/h		209			263			821			1079	
Approach Delay, s/veh		32.2			13.1			44.9			9.4	
Approach LOS		C			В			D			Α	
	1		2	4		,	7				, ,	
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+l1), 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		8.0				
Intersection Summary												
HCM 2010 Ctrl Delay			24.1									
HCM 2010 LOS			С									
Notes												
* HCM 2010 computational en	gine requ	uires equa	al clearan	ce times	for the ph	ases cros	ssing the	barrier.				

Existing AM.syn Hexagon

	<u> </u>		-	•	<u> </u>	1		
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	ካካ	† ††	<u>₩</u>	WDK	JDL N	JDK TT		
Traffic Volume (veh/h)	561	1670	595	170	519	773		
Future Volume (veh/h)	561	1670	595	170	519	773		
Number	1	6	2	170	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	U	U	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	1700	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	1.00	2	1.00	2	1.00		
Cap, veh/h	676	2755	1140	317	621	1522		
•	0.20	0.54	0.29	0.29	0.35	0.35		
Arrive On Green	3442	5253	4083	1089	1774	2787		
Sat Flow, veh/h								
Grp Volume(v), veh/h	561	1670	513	252	519	773		
Grp Sat Flow(s), veh/h/ln	1721	1695	1695	1615	1774	1393		
2 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		
Jpstream 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		
_nGrp Delay(d),s/veh	34.3	12.5	23.8	26.3	28.7	10.8		
nGrp LOS	С	В	С	С	С	В		
Approach Vol, veh/h		2231	765		1292			
Approach Delay, s/veh		18.0	24.6		18.0			
Approach LOS		В	С		В			
rimer	1	2	3	4	5	6	7 8	
Assigned Phs	<u> </u>	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+l1), s	13.6	11.7				18.5	21.8	
Green Ext Time (p_c), s	0.9	2.6				12.7	4.0	
η — ,	0.7	۷.0				14.7	4.0	
ntersection Summary			19.2					
HCM 2010 Ctrl Delay								
HCM 2010 LOS			В					

	۶	→	•	•	—	•	•	†	~	>		- ✓
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ň	4	7	ň	f)		ħ	† †	7	ň	† †	7
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(q_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	Е		Е	Е		Е	В	Α	А	F	D	С
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	J	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 (q_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				
ų — <i>,</i>	0.0	10.2		0.2	U. I	13.7		1.0				
Intersection Summary			27.0									
HCM 2010 Ctrl Delay			37.9									
HCM 2010 LOS			D									
Notes		., .		_								
User approved volume balanci	ng amoi	ng the lan	es for turi	ning move	ement.							

Existing AM.syn Hexagon

HCM Control Delay

HCM Lane LOS

HCM 95th-tile Q

22.3 21.2

С

3

С

2.8

14

В

0.3

33.4

D

5.4

13.3

В

0.5

23.9 47.1

Ε

8.2

С

3.2

31.6

D

4.9

Intersection													
Intersection Delay, s/vel	า30.6												
Intersection LOS	D												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	ሻ	†	7	ሻ	1			र्स	7		4		
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 Le	ft SB			NB			EB			WB			
Conflicting Lanes Left	1			2			3			2			
Conflicting Approach Rig	ghNB			SB			WB			EB			
Conflicting Lanes Right	2			1			2			3			
HCM Control Delay	28.1			38.3			21.7			31.6			
HCM LOS	D			Ε			С			D			
Lane	1	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3\	VBLn1\	VBLn2	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 (Ho	d)	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				
Сар		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				
HOMO I IDI		00.0	04.0		00.4	40.0	00.0	47.4	04 /				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		41₽			€î₽		7	ተተኈ		7	† †	7
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	0.7	0.00	0.83	0.0	0.60	1.00	07.10	0.19	1.00	00.7	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	0.0	E	0.0	E	F	F	F	E	C	0.0
Approach Vol, veh/h		143			566		-	1633	-		1465	
Approach Delay, s/veh		51.5			68.7			134.5			29.5	
Approach LOS		D D			E			F			C C	
•											0	
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									

	۶	→	•	•	←	•	•	†	<i>></i>	>	↓	- ✓
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	∱ Љ		ሻሻ	†	7	*	^	7	ሻሻ	† †	7
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 LnGrp Delay(d),s/veh	6.7 91.2	8.5 84.6	8.8 88.3	9.6 78.0	12.0 75.5	6.2 50.7	3.3 90.0	25.8 29.5	9.0 11.6	5.7 84.4	18.3 21.8	0.9 8.4
LnGrp LOS	91.2 F	04.0 F	00.3 F	76.0 E	75.5 E	30.7 D	90.0 F	29.5 C	11.0 B	04.4 F	21.0 C	
	г		Г	<u>E</u>		U	Г		D	Г		A
Approach Vol, veh/h		487 87.8			837 71.9			2036 27.4			1592 30.7	
Approach Delay, s/veh Approach LOS		67.6 F			71.9 E			27.4 C			30.7 C	
Approach LOS		Г			L			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+l1), 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 righ	nt turn typ	oe.										

Existing AM.syn Hexagon

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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	VVDL	77 T	<u>₩</u>	NDIX	JDL	<u>361</u>	
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	970	
Initial Q (Qb), veh	0	0	0	0	0	0	
• •	1.00	1.00	U	1.00	1.00	U	
Ped-Bike Adj(A_pbT) 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	730	2	2	0	0	970	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Percent Heavy Veh, %	2	1.00	1.00	0	0	2	
,	915	741	2232			2232	
Cap, veh/h Arrive On Green	0.27	0.27	0.63	0.00	0.00	0.63	
Sat Flow, veh/h	3442	2787	3725	0.00	0.00	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	0000	0.00	0.00	2000	
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	С	С	В			A	
Approach Vol, veh/h	1322		1727			970	
Approach Delay, s/veh	31.5		12.2			8.1	
Approach LOS	С		В			А	
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+l1), s		30.2				13.2	18.0
Green Ext Time (p_c), s		11.7				8.4	3.3
ntersection Summary							
HCM 2010 Ctrl Delay			17.6				
HCM 2010 LOS			В				
10.11. 2010 200			D				

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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	ሻሻ	T T		†	†	
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	0.00	3725	3725	0.00
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	14.δ	U.U	0.00
		619		1792	1792	0.00
Lane Grp Cap(c), veh/h	1346		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	1.00	1792	1792	1.00
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	С	С		В	А	
Approach Vol, veh/h	1699			965	1504	
Approach Delay, s/veh	31.0			14.6	3.9	
Approach LOS	С			В	А	
Timer	1	2	3	4	5	6
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 (q_c+I1), s		16.8		29.7		2.0
Green Ext Time (p_c), s		4.9		1.6		10.4
Intersection Summary						
			17.4			
HCM 2010 Ctrl Delay			17.4			
HCM 2010 LOS			В			

HCM 95th-tile Q

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Intersection												
Intersection Delay, s/ve	h12 7											
Intersection LOS	1112.7 B											
Intersection LOS	U											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT		NBR	NBR SBL	
Lane Configurations		474			4TÞ			4				4
Traffic Vol, veh/h	27	282	40	74	343	29	52	89		63		
Future Vol, veh/h	27	282	40	74	343	29	52	89		63		
Peak Hour Factor	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		
Mvmt Flow	27	282	40	74	343	29	52	89	63	}	21	21 101
Number of Lanes	0	2	0	0	2	0	0	1	0		0	0 1
Approach	EB			WB			NB				SB	SB
Opposing Approach	WB			EB			SB				NB	
Opposing Lanes	2			2			1				1	
Conflicting Approach Le				NB			EB				WB	· ·
Conflicting Lanes Left	1			1			2				2	
Conflicting Approach Ri				SB			WB				EB	
Conflicting Lanes Right				1			2				2	
HCM Control Delay	12.1			13.4			12.8			12		
HCM LOS	12.1 B			13.4			12.0 B					
HOW LOS	D			D			U			В		
		IDI 4	EDI (EDL C	NDL C	NDI 5	001 1					
Lane	N					WBLn2						
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 (Ho	d)	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		В	В	В	В	В	В					
LICM OF the tile O		1 /	1 2	1 /	2.2	1 г	1 2					

Intersection												
Int Delay, s/veh	6.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		414			4ÎÞ			4			4	
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 N	/lajor1		N	Major2		I	Minor1		N	/linor2		
Conflicting Flow All	425	0	0	794	0	0	1092	1338	430	942	1322	228
Stage 1	720	-	-	7 7 -	-	-	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	0.74	6.54	5.54	0.74
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, %		_	_		_	_	. 00	- 5,5		- 507	300	
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	_
- 19												
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.8			0.3			20.2			40.9		
HCM LOS	0.0			0.5			20.2 C			40.9 E		
TOW LOS										<u> </u>		
Minor Lane/Major Mvm	· 1	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SRI n1			
	. 1	287	1102		LDK			WDIX .				
Capacity (veh/h) HCM Lane V/C Ratio				-	-	812	-	-	266 0.654			
		0.174		- 0.2	-	0.01	- 0 1	-				
HCM Lang LOS		20.2	8.4	0.3	-	9.5	0.1	-	40.9			
HCM Lane LOS HCM 95th %tile Q(veh)		C 0.6	A 0.2	Α	-	A 0	A -	-	4.2			
		0.0	0.2	-	-	U		-	4.2			

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Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			4			4			44	
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	e,# -	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 I	Major1			Major2		1	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	-
g- =												
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.5			9.5			11.9		
HCM LOS							A			В		
Minor Lane/Major Mvm	nt I	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		877	1450	_		1488	_	_	528			
HCM Lane V/C Ratio		0.092	- 1.00	_		0.042	_	_	0.017			
HCM Control Delay (s)		9.5	0		_	7.5	0		11.9			
HCM Lane LOS		Α	A	_	_	Α.5	A	_	В			
HCM 95th %tile Q(veh)	0.3	0		_	0.1	-	_	0.1			
1.3W 70W 70W Q(VCI)		0.0	U			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		4			4			4			4	
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	e,# -	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 I	Major1		ı	Major2			Minor1		ı	Minor2		
Conflicting Flow All	94	0	0	83	0	0	369	335	76	345	342	94
Stage 1	74	-	U	0.5	-	-	87	87	70	247	247	94
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	- 0.22	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		3.318	3.518	4.018	
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	-
Annroach	EB			WB			NB			SB		
Approach	0.5			3.4			10.3			11.5		
HCM Control Delay, s HCM LOS	0.5			3.4			10.3 B			11.5 B		
TICIVI LUS							Ď			D		
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		702	1498	-	-	1511	-	-	635			
HCM Lane V/C Ratio			0.004	-	-	0.051	-	-	0.121			
HCM Control Delay (s)		10.3	7.4	0	-	7.5	0	-				
HCM Lane LOS		В	Α	Α	-	Α	Α	-	В			
HCM 95th %tile Q(veh))	0.1	0	-	-	0.2	-	-	0.4			

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Intersection	6 -											
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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	109	-	-	- 00	-	-	94	94	70	271	271	100
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	T. 1Z		_	7.12	_	_	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 2	_				_		6.12	5.52	_	6.12	5.52	_
Follow-up Hdwy	2.218	_	_	2.218	_	_	3.518		3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1420	-	_	1518	_	-	586	563	983	581	560	885
Stage 1	- 120	_	_	-	_	_	913	817	703	735	685	-
Stage 2	-	-	-	-	-	-	729	685	-	901	814	-
Platoon blocked, %		-	-		_	_	/	300			J11	
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	-
- 19-												
0	ED			MD			ND			CD		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	8.0			2			10.1			10.7		
HCM LOS							В			В		
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)		735	1419	-	-	1518	-	-	649			
HCM Lane V/C Ratio			0.006	-	-	0.037	_	-	0.025			
HCM Control Delay (s)		10.1	7.6	0	-	7.5	0	-				
HCM Lane LOS		В	A	A	-	A	A	-	В			
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	<u>₽</u>	LDI	VVDL	₩ •1	₩ W	אטוז
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
ğ .	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	310p -	None
Storage Length	-	NONE -	-	None -	0	NONE -
Veh in Median Storage,			_	0	0	
Grade, %	# 0 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 Major/Minor	ajor1	N	Major2	N	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			3.318
Pot Cap-1 Maneuver	_	_	1485	_	773	949
Stage 1	_	_	1405	_	919	747
Stage 2	-				908	-
Platoon blocked, %	-	-	-	-	900	-
		-	1481		752	947
Mov Cap-1 Maneuver	-	-	1401	-		
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			2		A	
					, \	
Minor Lane/Major Mvmt	1	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		Α	-	-	Α	Α
HCM 95th %tile Q(veh)		0.4	-	-	0.1	-

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Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	2,# -	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 I	Major1			Major2		1	Minor1			Minor2		
Conflicting Flow All	125	0	0	74	0	0	397	363	74	366	362	125
Stage 1	120	-	-	-	-	-	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	- 0.22	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	- 102	_	_	-	-	-	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	7			0.1			В			Α		
1.0W E00							U			,,		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SRI n1			
	it l						VVDI	WDK.				
Capacity (veh/h) HCM Lane V/C Ratio		633	1460	-		1525	-	-	847			
			0.055	-	-	0.001	- 0	-	0.091			
HCM Long LOS		10.8	7.6	0	-	7.4	0	-	9.7			
HCM Lane LOS	١	B	A	Α	-	A	А	-	A			
HCM 95th %tile Q(veh))	0.1	0.2	-	-	0	-	-	0.3			

ntersection	
ntersection Delay, s/veh	8.5
ntersection Delay, s/veh ntersection LOS	А

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		₩			₩			₩			4	
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	Α			Α			Α			Α		

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	А	Α	Α	А	
HCM 95th-tile Q	0.6	0.3	0.4	1	

Intersection Delay, s/veh18.8 Intersection LOS C	Intersection							
Intersection LOS C	Intersection Delay, s/	veh18.8						
	Intersection LOS	С						

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach R	ightNB			SB			WB			EB			
Conflicting Lanes Right	1			1			1			1			
HCM Control Delay	12.8			15.1			15.7			25			
HCM LOS	В			С			С			С			

Lane	NBLn1	EBLn1\	VBLn1	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	С	В	С	С
HCM 95th-tile Q	2.9	1.2	2.6	6.8

Intersection												
Intersection Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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 N	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	18	0	0	80	0	0	78	76	48	77	108	18
Stage 1	-	-	<u>.</u>	-	-	-	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	₩. IZ	-		4 .1∠	_	-	6.12	5.52	0.22	6.12	5.52	0.22
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
•	1377	-	-	1310	-	-	963	853	1021	912	874	1001
Stage 1 Stage 2	-	-	-	-	-	-	989	874		962	827	-
Platoon blocked, %	•	•	-	-	-		707	0/4	-	902	027	-
	1500	-	-	1517	-	-	004	810	1020	907	778	1061
Mov Cap-1 Maneuver	1599		-	1317	-	-	904				778	1001
Mov Cap-2 Maneuver	-	-	-	-	-	-	904	810	-	907		-
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							Α			Α		
Minor Lane/Major Mvm	t N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SRI n1			
Capacity (veh/h)	- 1	905	1599	- -	LDIX	1517	-	VVDIX -	847			
HCM Lane V/C Ratio			0.001									
		0.09 9.4	7.3	-	-	0.003 7.4	-		0.006 9.3			
HCM Lang LOS				0	-		0	-				
HCM Lane LOS		A	A	Α	-	A	А	-	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	⊢ LDL	LDI	NDL	<u>₩</u>	<u>301</u>	3DIX 7
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		-	-	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
Naisa/Naissa	Minara		\		1-:0	
	Minor2		Major1		/lajor2	<u> </u>
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, %	330			_	_	_
	96	451	873	-		-
Mov Cap 2 Manager				-	-	-
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	10.0 C		0.2		U	
HOW LUS	C					
Minor Lane/Major Mvn	nt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)		873			-	_
HCM Lane V/C Ratio		0.024		0.187	_	_
HCM Control Delay (s))	9.2	0	18.8	_	_
HCM Lane LOS		Α.Ζ	A	C	-	_
HCM 95th %tile Q(veh)	0.1	- A	0.7	-	-
HOW YOU WILL CALLED)	0.1	-	0.7		-

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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	WDL	WDIX	† ∱	אטוי	JUL	<u>361</u>
Traffic Volume (veh/h)	285	22	372	512	0	594
Future Volume (veh/h)	285	22	372	512	0	594 594
Number	200 7	14	2	12	1	6
		0				
Initial Q (Qb), veh	0		0	0	1.00	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
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	0.00	3516	0.00	0.00	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	0.00	4.0	0.00	0.00	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	Α		A			A
Approach Vol, veh/h	308		372			594
Approach Delay, s/veh	8.7		4.1			4.5
Approach LOS	Α		Α			Α
Timer	1	2	3	4	5	6
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
						4.4
Max Q Clear Time (g_c+l1), s		3.4		5.3		
Green Ext Time (p_c), s		2.5		0.1		3.5
Intersection Summary						
HCM 2010 Ctrl Delay			5.4			
HCM 2010 LOS			А			
2010 200			* *			

Existing PM.syn Synchro 10 Report Hexagon 12/18/2018

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4₽	7		414			4	7		4	7
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	0.2	1.00	0.05	0.0	0.36	0.51	0.0	1.00	0.18	0.0	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	0.00	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	0.0	C	D	0.0	C	D	0.0	C
Approach Vol, veh/h		639			508			355			461	
Approach Delay, s/veh		16.5			22.9			37.1			35.1	
Approach LOS		В			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		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			С									

	•	-	←	•	>	4	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	ሻ	†	†	7	ሻ	7	
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	
nitial 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	
2 Serve(g_s), s	27.0	7.6	19.0	27.4	27.3	15.8	
	27.0	7.6	19.0	27.4	27.3	15.8	
Cycle Q Clear(g_c), s		7.0	19.0				
Prop In Lane	1.00	1202	004	1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	409	1292	804	1044	427	746	
//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	
Jpstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Jniform Delay (d), s/veh	48.3	7.2	26.1	11.4	47.3	22.1	
ncr Delay (d2), s/veh	15.1	0.4	2.0	2.4	13.6	0.3	
nitial 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	
nGrp Delay(d),s/veh	63.4	7.6	28.1	13.7	60.9	22.3	
nGrp LOS	<u>E</u>	A	С	В	E	С	
Approach Vol, veh/h		685	992		688		
Approach Delay, s/veh		38.7	19.3		44.1		
pproach LOS		D	В		D		
imer	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+l1), 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 Cur belay			32.1 C				
Votes		,		,,	. ,,		ssing the barrier.

Existing PM.syn Hexagon

	•	→	•	•	←	•	•	†	~	>	↓	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4	7		ፋቤ		ň	↑ ↑	
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	C
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	C
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	Е			Е		В	Е		Е	С	Α	А
Approach Vol, veh/h		73			260			969			861	
Approach Delay, s/veh		64.4			24.5			57.7			5.8	
Approach LOS		E			С			Е			А	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	<u> </u>	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+l1), 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		0.9				
Intersection Summary												
HCM 2010 Ctrl Delay			33.2									
HCM 2010 LOS			33.2 C									
Notes												
* HCM 2010 computational en	gine req	uires equa	al clearan	ce times	for the ph	ases cros	ssing the	barrier.				

Existing PM.syn Hexagon

Vertical Length		•		—	•		1		
The Configurations	Mayamant		EDT	\M/DT	WDD	CDI			
iffic Volume (veh/h) 563 774 1360 317 258 557 ture Volume (veh/h) 563 774 1360 317 258 557 mber 1 6 2 12 3 18 ial Q (Ob), veh 0 0 0 0 0 0 d-Bike Adj(A_pbT) 1.00 1.00 1.00 1.00 1.00 1.00 1king Bus, Adj 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1king Bus, Adj 1.00 <th></th> <th></th> <th></th> <th></th> <th>WDK</th> <th></th> <th></th> <th></th> <th></th>					WDK				
ture Volume (veh/h)					217				
mber									
iai Q (Qb), veh	• • •								
d-Bike Adj(A_pbT)									
rking Bus, Adj	• •		U	U					
Sal Flow, veh/h/ln			1 00	1.00					
Flow Rate, veh/h 563 774 1360 317 258 557 100 of Lanes 2 3 3 0 1 2 2 2 2 2 2 2 2 2									
No. of Lanes									
ak Hour Factor									
rcent Heavy Veh, %									
p, veh/h									
ive On Green									
t Flow, veh/h o Volume(v), veh/h o Volume(v), veh/h o Sat Flow(s), veh/h/ln o Sat Flow(s), veh/ln o Sat Flow(s), veh/h/ln o Sat Flow(s), veh/h/ln o Sat Flow(s), veh/h/ln o Sat Flow(s), veh/h/ln o Sat Flow(s), veh/ln o Sat Flow(s), veh/ln									
O Volume(v), veh/h 563 774 1126 551 258 557 a Sat Flow(s), veh/h/ln 1721 1695 1695 1654 1774 1393 Serve(g_s), s 10.6 3.9 19.3 19.4 9.2 10.2 cle Q Clear(g_c), s 10.6 3.9 19.3 19.4 9.2 10.2 pl In Lane 1.00 0.58 1.00 1.00 1.00 1.00 ne Grp Cap(c), veh/h 681 3468 1440 702 354 1108 C Ratio(X) 0.83 0.22 0.78 0.78 0.73 0.50 all Cap(c_a), veh/h 816 3468 1440 702 421 1213 M Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 1.00 stream Filter(I) 1.00 1.00 1.00 1.00 1.00 1.00 1.00 stream Filter(g) 1.00 1.00 1.00 1.00 1.00 <									
a Sat Flow(s), veh/h/ln 1721 1695 1695 1654 1774 1393 Serve(g_s), s 10.6 3.9 19.3 19.4 9.2 10.2 cle Q Clear(g_c), s 10.6 3.9 19.3 19.4 9.2 10.2 pl In Lane 1.00	<u> </u>								
Serve(g_s), s 10.6 3.9 19.3 19.4 9.2 10.2 cle Q Clear(g_c), s 10.6 3.9 19.3 19.4 9.2 10.2 cle Q Clear(g_c), s 10.6 3.9 19.3 19.4 9.2 10.2 cle Q Clear(g_c), s 10.6 3.9 19.3 19.4 9.2 10.2 cle Q Clear(g_c), s 10.6 3.9 19.3 19.4 9.2 10.2 cle Q Clear(g_c), s 10.6 3.9 19.3 19.4 9.2 10.2 cle Q Clear(g_c), s 10.6 3.9 19.3 19.4 9.2 10.2 cle Q Clear (g_c), s 10.6 3.9 19.3 19.4 9.2 10.2 cle Q Clear (g_c), s 10.6 3.9 19.3 19.4 9.2 10.2 cle Q Clear (g_c), s 10.6 3.9 19.3 19.4 9.2 10.2 cle Q Clear (g_c), s 10.6 3.9 19.3 19.4 9.2 10.2 cle Q Clear (g_c), s 10.6 3.9 19.3 19.4 19.2 10.0 1.00 1.00 1.00 1.00 1.00 1.00 1.									
cle Q Clear(g_c), s									
pp In Lane									
The Grp Cap(c), veh/h C Ratio(X) 0.83 0.22 0.78 0.78 0.73 0.50 all Cap(c_a), veh/h 816 3468 1440 702 421 1213 M Platoon Ratio 1.00 1.			3.9	19.3					
C Ratio(X)			24/0	1440					
ail Cap(c_a), veh/h 816 3468 1440 702 421 1213 AM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 Independent of the process of the proach Los and period (Y+Rc), s 16.0 26.0									
M Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 1.00 stream Filter(I) 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0									
stream Filter(I) 1.00 1.00 1.00 1.00 1.00 1.00 1.00 ifform Delay (d), s/veh 25.9 4.0 16.7 16.7 25.3 15.3 r Delay (d2), s/veh 6.0 0.1 4.3 8.6 5.2 0.4 ial Q Delay(d3),s/veh 0.0 0.0 0.0 0.0 0.0 0.0 e BackOfQ(50%),veh/ln 5.6 1.8 9.8 10.4 5.0 3.9 Grp Delay(d),s/veh 31.9 4.2 21.0 25.3 30.5 15.7 Grp LOS C A C C C B proach Vol, veh/h 1337 1677 815 proach Delay, s/veh 15.9 22.4 20.3 proach LOS B C C C C B signed Phs 1 2 3 4 5 6 7 8 signed Phs 1 2 6 8 s Duration (G+Y+Rc), s 17.4 32.6 50.0 17.5 ange Period (Y+Rc), s 4.0 4.0 4.0 x Green Setting (Gmax), s 16.0 26.0 46.0 16.0 x Q Clear Time (g_c+I), s 12.6 21.4 5.9 12.2 een Ext Time (p_c), s 0.8 3.7 6.1 1.3 ersection Summary									
iform Delay (d), s/veh 25.9 4.0 16.7 16.7 25.3 15.3 r Delay (d2), s/veh 6.0 0.1 4.3 8.6 5.2 0.4 ial Q Delay(d3),s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 e BackOfQ(50%),veh/ln 5.6 1.8 9.8 10.4 5.0 3.9 Grp Delay(d),s/veh 31.9 4.2 21.0 25.3 30.5 15.7 Grp LOS C A C C C B proach Vol, veh/h 1337 1677 815 proach Delay, s/veh 15.9 22.4 20.3 proach LOS B C C C C C B signed Phs 1 2 3 4 5 6 7 8 signed Phs 1 2 6 8 S Duration (G+Y+Rc), s 17.4 32.6 50.0 17.5 ange Period (Y+Rc), s 4.0 4.0 4.0 4.0 ax Green Setting (Gmax), s 16.0 26.0 46.0 16.0 ax Q Clear Time (g_c+I1), s 12.6 21.4 5.9 12.2 een Ext Time (p_c), s 0.8 3.7 6.1 1.3 ersection Summary									
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Grp Delay(d),s/veh 31.9 4.2 21.0 25.3 30.5 15.7 Grp LOS C A C C C B proach Vol, veh/h 1337 1677 815 proach Delay, s/veh 15.9 22.4 20.3 proach LOS B C C ner 1 2 3 4 5 6 7 8 signed Phs 1 2 6 8 8 8 50.0 17.5 8 s Duration (G+Y+Rc), s 17.4 32.6 50.0 17.5 8 9 12.5 17.5									
Grp LOS C A C C C B proach Vol, veh/h 1337 1677 815 proach Delay, s/veh 15.9 22.4 20.3 proach LOS B C C Therefore Incompany	• • • • • • • • • • • • • • • • • • • •								
proach Vol, veh/h proach Delay, s/veh proach Delay, s/veh proach LOS B C C mer 1 2 3 4 5 6 7 8 signed Phs s Duration (G+Y+Rc), s 17.4 32.6 50.0 17.5 ange Period (Y+Rc), s 4.0 4.0 4.0 x Green Setting (Gmax), s 16.0 26.0 46.0 16.0 x Q Clear Time (g_c+l1), s 12.6 21.4 5.9 12.2 gen Ext Time (p_c), s 0.8 3.7 6.1 1.3 ersection Summary M 2010 Ctrl Delay 19.7									
proach Delay, s/veh proach LOS B C C mer 1 2 3 4 5 6 7 8 signed Phs 1 2 6 8 s Duration (G+Y+Rc), s 17.4 32.6 50.0 17.5 ange Period (Y+Rc), s 4.0 4.0 4.0 4.0 x Green Setting (Gmax), s 16.0 26.0 46.0 16.0 x Q Clear Time (g_c+l1), s 12.6 21.4 5.9 12.2 gen Ext Time (p_c), s 0.8 3.7 6.1 1.3 ersection Summary M 2010 Ctrl Delay 19.7		C			C		В		
B C C C	• •								
ner 1 2 3 4 5 6 7 8 signed Phs 1 2 6 8 s Duration (G+Y+Rc), s 17.4 32.6 50.0 17.5 ange Period (Y+Rc), s 4.0 4.0 4.0 x Green Setting (Gmax), s 16.0 26.0 46.0 16.0 x Q Clear Time (g_c+l1), s 12.6 21.4 5.9 12.2 een Ext Time (p_c), s 0.8 3.7 6.1 1.3 ersection Summary M 2010 Ctrl Delay 19.7	, ,								
signed Phs 1 2 6 8 s Duration (G+Y+Rc), s 17.4 32.6 50.0 17.5 ange Period (Y+Rc), s 4.0 4.0 4.0 4.0 x Green Setting (Gmax), s 16.0 26.0 46.0 16.0 x Q Clear Time (g_c+l1), s 12.6 21.4 5.9 12.2 een Ext Time (p_c), s 0.8 3.7 6.1 1.3 ersection Summary M 2010 Ctrl Delay 19.7	Approach LOS		В	С		С			
s Duration (G+Y+Rc), s 17.4 32.6 50.0 17.5 ange Period (Y+Rc), s 4.0 4.0 4.0 4.0 x Green Setting (Gmax), s 16.0 26.0 46.0 16.0 x Q Clear Time (g_c+I1), s 12.6 21.4 5.9 12.2 een Ext Time (p_c), s 0.8 3.7 6.1 1.3 ersection Summary	Timer	1	2	3	4	5_	6	7 8	
s Duration (G+Y+Rc), s 17.4 32.6 50.0 17.5 ange Period (Y+Rc), s 4.0 4.0 4.0 4.0 x Green Setting (Gmax), s 16.0 26.0 46.0 16.0 x Q Clear Time (g_c+I1), s 12.6 21.4 5.9 12.2 een Ext Time (p_c), s 0.8 3.7 6.1 1.3 ersection Summary M 2010 Ctrl Delay 19.7	Assigned Phs	1	2				6	3	
ange Period (Y+Rc), s 4.0 4.0 4.0 x Green Setting (Gmax), s 16.0 26.0 46.0 16.0 x Q Clear Time (g_c+l1), s 12.6 21.4 5.9 12.2 een Ext Time (p_c), s 0.8 3.7 6.1 1.3 Exsection Summary M 2010 Ctrl Delay 19.7	Phs Duration (G+Y+Rc), s	17.4	32.6				50.0		
x Green Setting (Gmax), s 16.0 26.0 46.0 16.0 x Q Clear Time (g_c+l1), s 12.6 21.4 5.9 12.2 een Ext Time (p_c), s 0.8 3.7 6.1 1.3 ersection Summary M 2010 Ctrl Delay 19.7	Change Period (Y+Rc), s								
x Q Clear Time (g_c+l1), s 12.6 21.4 5.9 12.2 een Ext Time (p_c), s 0.8 3.7 6.1 1.3 ersection Summary M 2010 Ctrl Delay 19.7	Max Green Setting (Gmax), s								
een Ext Time (p_c), s	Max Q Clear Time (g_c+I1), s								
M 2010 Ctrl Delay 19.7	Green Ext Time (p_c), s								
M 2010 Ctrl Delay 19.7	ntersection Summary								
	HCM 2010 Ctrl Delay			19.7					
	HCM 2010 LOS								

Existing PM.syn Synchro 10 Report Hexagon 12/18/2018

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	र्स	7	7	₽		7	† †	7	7	† †	7
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	В	Α	Е	В	А
Approach Vol, veh/h		586			143			1174			1015	
Approach Delay, s/veh		40.9			45.0			59.0			14.0	
Approach LOS		D			D			Е			В	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6	<u>'</u>	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												
			n phase r									

Existing PM.syn Hexagon

HCM 95th-tile Q

Intersection												
Intersection Delay, s/veh	129.1											
Intersection LOS	D											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR		SBL	SBL SBT
Lane Configurations	ሻ	†	7	ሻ	f)			4	7			4
Traffic Vol, veh/h	45	346	86	182	239	21	87	147	220		39	39 123
Future Vol, veh/h	45	346	86	182	239	21	87	147	220		39	39 123
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	39 123
Number of Lanes	1	1	1	1	1	0	0	1	1		0	0 1
Approach	EB			WB			NB				SB	SB
Opposing Approach	WB			EB			SB				NB	NB
Opposing Lanes	2			3			1				2	2
Conflicting Approach Let	ft SB			NB			EB			V	٧B	/B
Conflicting Lanes Left	1			2			3				2	2
Conflicting Approach Rig	ghNB			SB			WB			EB	3	3
Conflicting Lanes Right	2			1			2			3		
HCM Control Delay	40			25.7			23.3			23.7		
HCM LOS	Ε			D			С			С		
Lane	١	IBLn1	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%		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	l)	9.438	8.521	9.616		8.37	9.781	9.1981	10.036			
Convergence, Y/N		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Сар		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	С	В	Ε	В	С	D	С			
LICM OF the tile O		2.0	2.0	0.4	0.7	0.7	2 /	1 /	2			

Existing PM.syn Synchro 10 Report 12/18/2018 Hexagon

2.6

4.6

3

8.7

0.7

3.9

2.9

0.4

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Movement	EBL	EBT	EBR	₩BL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	LDL	414	LDIX	VVDL	414	WDIX	NDL	††	NDIX	JDL	<u> </u>	JDK ř
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	В	
Approach Vol, veh/h		155			468			1366			1513	
Approach Delay, s/veh		59.6			72.4			63.4			23.2	
Approach LOS		E			E			Е			С	
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									

Existing PM.syn Synchro 10 Report Hexagon 12/18/2018

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	ተ ኈ		1/4	†	7	7	† †	7	1/4	^	7
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	С	Е	С	А	E	С	В
Approach Vol, veh/h		534			1093			1586			1582	
Approach Delay, s/veh		64.1			46.0			22.6			30.8	
Approach LOS		Е			D			С			С	
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+l1), 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 righ	nt turn ty	pe.										

Existing PM.syn Hexagon

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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	ሻሻ	777	† †	NDIX	JDL	<u>↑</u>	
Traffic Volume (veh/h)	508	245	2042	0	0	766	
Future Volume (veh/h)	508	245	2042	0	0	766	
Number	3	18	2042	12	1	6	
Initial Q (Qb), veh	0	0	0	0	0	0	
	1.00	1.00	U	1.00	1.00	U	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	
Parking Bus, Adj Adj Sat Flow, veh/h/ln		1863	1863	0		1863	
•	1863				0		
Adj Flow Rate, veh/h	508 2	245 2	2042	0	0	766 2	
Adj No. of Lanes				1.00	1.00		
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	В	5.0	3.0	A	
Approach Vol, veh/h	753		2042			766	
Approach Vol, venin	31.2		10.2			4.9	
Approach LOS	31.2 C		10.2 B			4.7 A	
•	C						
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+l1), s		34.5				8.6	13.2
Green Ext Time (p_c), s		10.3				6.3	2.4
Intersection Summary							<u>-··</u>
HCM 2010 Ctrl Delay			13.5				
HCM 2010 Cur Delay			13.3 B				
HCIVI 2010 LOS			В				

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	•	*	1	†	¥	∢
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	1,1	7		† †	^	
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	0.00	3725	3725	0.00
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	С	В		В	Α	
Approach Vol, veh/h	1755			1015	881	
Approach Delay, s/veh	25.4			17.7	2.7	
Approach LOS	C			В	Α	
				U		
Timer	1	2	3	4	5	6
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+l1), 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 Cur belay			17.0 B			
HOW ZUTU LUS			D			

Intersection		
Intersection Delay, s/ve	eh12.6	
Intersection LOS	В	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		414			€Î}			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			2			2			
Conflicting Approach Ri				SB			WB			EB			
Conflicting Lanes Right	1			1			2			2			
HCM Control Delay	13.6			11.8			11.8			11.6			
HCM LOS	В			В			В			В			

Lane	NBLn1	EBLn1	EBLn2V	VBLn1V	WBLn2	SBLn1	Į					
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	В	В	В	В	В	В						
HCM 95th-tile Q	1.2	2.3	2.2	1.4	1.1	1						

Latana a Uan												
Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्सीन			4îb			4			4	
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 M	lajor1			Major2		N	/linor1		Λ	/linor2		
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		
	1.5			0.4			20.4			26.3		
HCM Control Delay, s HCM LOS	1.0			0.4			20.4 C			20.3 D		
TIGIVI LUS							C			U		
Minor Lane/Major Mvmt	1	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S				
Capacity (veh/h)		258	887	-	-	908	-	-	272			
HCM Lane V/C Ratio		0.093		-	-	0.022	-	-	0.386			
HCM Control Delay (s)		20.4	9.5	0.5	-	9.1	0.1	-	26.3			
HCM Lane LOS		С	Α	Α	-	Α	Α	-	D			
HCM 95th %tile Q(veh)		0.3	0.3	-	-	0.1	-	-	1.7			

Intersection												
Int Delay, s/veh	1.9											
		EDT	EDD	MDI	MOT	14/00	NDI	NDT	NDD	001	ODT	000
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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 N	Major1			Major2		1	Minor1		1	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	4.12	_	_	4.12	_	_	6.12	5.52	0.22	6.12	5.52	0.22
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	1303			1010			930	829	703	898	807	703
Stage 2			_	_	_	_	901	806	_	921	825	
Platoon blocked, %						_	701	000		/21	UZJ	
Mov Cap-1 Maneuver	1498		_	1514	_	_	771	700	981	745	696	961
Mov Cap-1 Maneuver	1470			1014			771	700	701	745	696	701
Stage 1	-	-	-	-	-	-	928	827	-	894	800	-
Stage 2							894	799	-	904	823	
Jiayt 2	_	_	_	_	-	_	074	177	_	704	023	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.6			9.4			9.7		
HCM LOS							Α			Α		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		850	1498			1514	-	-				
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		7.4 A	7.4 A	A	-	7.4 A	A	-	7.7 A			
HCM 95th %tile Q(veh))	0.1	0	- -	-	0	- A	-	0			
HOW 75th 70the Q(VeH)		0.1	U			U			U			

Intersection												
Int Delay, s/veh	4.7											
		EDT	EDD	MDI	MOT	WDD	NDI	NDT	NDD	CDI	CDT	CDD
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	4	,	0	4	0	4./	4	10	-	4	-
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 Cton	0	1 Cton	1 Cton	0	1 Cton
Sign Control RT Channelized	Free	Free	Free None	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop None
	-	-		-	-	None	-	-	None	-	-	None
Storage Length	- 4	0	-	-	0	-	-	0	-	-	0	-
Veh in Median Storage Grade, %	2,# -	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
IVIVIII I IOW	1	31	U	7	J4	7	10	14	10	J	31	,
	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	848 826	-	930	829 846	-
Stage 2 Platoon blocked, %	-	-	-	•	-	-	910	020	-	939	040	-
Mov Cap-1 Maneuver	1534	-	-	1560	-	-	774	741	1024	784	742	1000
Mov Cap-1 Maneuver	1334		-	1500	-		774	741	1024	784	742	1000
Stage 1	-	-	-	-	-	-	949	842	-	923	822	-
Stage 2							864	819	-	902	840	
Jiaye Z							004	017		702	040	
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			0.9			9.5			9.9		
HCM LOS							Α			Α		
Minor Lane/Major Mvm	nt 1	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		Α	Α	A	-	Α	A	-	Α			
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		4			4			4			4	
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	e,# -	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		I	Major2		N	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		3.518	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							А			А		
Minor Lane/Major Mvm	nt ſ	VBLn1	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		Α	Α	Α	-	Α	Α	-	Α			
HCM 95th %tile Q(veh))	0.1	0	-	-	0	-	-	0			

Intersection						
Int Delay, s/veh	3.3					
		EDD	WDI	WDT	NDI	NDD
	EBT _	EBR	WBL	WBT	NBL	NBR
Lane Configurations	₽			4	¥	
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
	ree	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	. 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	0	18	42	3	36
IVIVIIIL I IOW	73	U	10	72	3	30
Major/Minor Ma	jor1	ľ	Major2	1	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	_		3.318
		-				
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	-
J						
A			\A/D		, LD	
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.2		8.7	
HCM LOS					Α	
Minor Lane/Major Mvmt	N	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		Α	-	-	Α	Α
HCM 95th %tile Q(veh)		0.1	-	-	0	-

Existing PM.syn Synchro 10 Report Hexagon 12/18/2018

Intersection Int Delay, Sveh 3.5 SBI S	latan atta												
Movement		2 5											
Lane Configurations	ını Delay, S/Ven	3.5											
Traffic Vol, veh/h	Movement	EBL		EBR	WBL		WBR	NBL		NBR	SBL		SBR
Future Vol, veh/h Conflicting Peds, #/hr Conf	Lane Configurations		4			4			4			4	
Conflicting Peds, #/hr 2	Traffic Vol, veh/h		47	8	5		4	2	4	3	2		
Sign Control Free Free Free Free Free Free Free Free None	·												35
RT Channelized				-			2						
Storage Length		Free	Free		Free	Free		Stop	Stop		Stop	Stop	
Veh in Median Storage, # 0 - - 0 - - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 0 0 0 0 0 0 0 0 0 0 0 10		-	-	None	-	-	None	-	-	None	-	-	None
Grade, % - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - 0 - 0 - 0 0 100 2 2 2 2 2 2 2 2 2 2			-	-	-		-	-		-	-		-
Peak Hour Factor 100 20 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 5 6 2 2 2 2 2 3 3 5 6 1 2 2 1 2 4 2 2 1 2 2 1 2 2 2 2 1 2 2 <td></td> <td>e,# -</td> <td></td> <td>-</td> <td>-</td> <td></td> <td>-</td> <td>-</td> <td></td> <td>-</td> <td>-</td> <td></td> <td>-</td>		e,# -		-	-		-	-		-	-		-
Heavy Vehicles, % 2 2 2 2 2 2 2 2 2													
Mynt Flow 35 47 8 5 62 4 2 4 3 2 3 35 Major/Minor Major1 Major2 Minor1 Minor2 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 Stg 1 - - - - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 <													
Majort/Minor Major1													
Conflicting Flow All 68 0 0 56 0 0 216 200 52 201 202 67 Stage 1 122 122 - 76 76 - Stage 2 122 122 - 76 76 - Stage 2 122 122 - 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 - 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 Critical Hdwy Stg 2	Mvmt Flow	35	47	8	5	62	4	2	4	3	2	3	35
Conflicting Flow All 68 0 0 56 0 0 216 200 52 201 202 67 Stage 1 122 122 - 76 76 - Stage 2 122 122 - 76 76 - Stage 2 122 122 - 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 - 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 Critical Hdwy Stg 2													
Conflicting Flow All 68 0 0 56 0 0 216 200 52 201 202 67 Stage 1 122 122 - 76 76 - Stage 2 122 122 - 76 76 - Stage 2 122 122 - 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 - 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 Critical Hdwy Stg 2	Maior/Minor	Maior1		ı	Maior2		I	Minor1			Minor2		
Stage 1			0			0			200			202	67
Stage 2				-									
Critical Hdwy 4.12 - 4.12 - 4.12 - 7.12 6.52 6.22 7.12 6.52 6.52 6.52 6.52 6.52 6.52 6.52 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.13 3.318 3.318 3.318 3.318 3.318 4.018 3.318 3.518 4.018 3.318 3.518 4.018 3.318 3.018 3.218 4.018 3.218 </td <td></td> <td>_</td> <td></td> <td>_</td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		_		_	_								
Critical Hdwy Stg 1 - - - - 6.12 5.52 - 6.18 3.318 3.318 3.318 3.318 3.318 3.318 3.318 4.018 3.318 3.318 3.318 3.21 4.018 3.21 4.018 4.018 4.018 4.018 4.018 4.01		4.12	-	-	4.12		-			6.22			6.22
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 - - - - - 913 830 - 879 792 - Platoon blocked, % - - - - - 913 830 - 879 792 - Platoon blocked, % - - - - - 696 675 1015 735 673 995 Mov Cap-1 Maneuver 1530 - - 1548 - - 696 675 1015 735 673 - Stage 1 - <t< td=""><td></td><td></td><td>_</td><td>_</td><td>-</td><td>_</td><td>_</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>			_	_	-	_	_						
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 2 882 795 - 933 832 - Platoon blocked, % Mov Cap-1 Maneuver 1530 - 1548 - 913 830 - 879 792 - Platoon blocked, % Mov Cap-2 Maneuver 1530 - 1548 - 696 675 1015 735 673 995 Mov Cap-2 Maneuver 696 675 1015 735 673 995 Mov Cap-2 Maneuver 860 775 - 909 828 - 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 98 9 HCM LOS A BEN 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 A A A A A A A A A A A A A		-	-	-	-	_	_			-			_
Pot Cap-1 Maneuver 1533		2.218	_	_	2.218	-	-			3.318			3.318
Stage 1 - - - - 882 795 - 933 832 - Platoon blocked, % - - - - - 913 830 - 879 792 - Mov Cap-1 Maneuver 1530 - - 1548 - - 696 675 1015 735 673 995 Mov Cap-2 Maneuver - - - - - - 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 - A HCM Los - - - - - - - - -			-	-		-	-						
Stage 2 - - - - 913 830 - 879 792 - Platoon blocked, % - <	•	-	-	_	-	-	-						
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 WB NB SB HCM Control Delay, s 2.9 0.5 9.8 9 HCM 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 </td <td></td> <td></td> <td>-</td> <td>-</td> <td></td> <td>-</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			-	-		-	-						
Mov Cap-2 Maneuver - - - - 696 675 - 735 673 - Stage 1 - - - - - 860 775 - 909 828 - Stage 2 - - - - 874 826 - 851 772 - Approach EB WB NB NB SB HCM Control Delay, s 2.9 0.5 9.8 9 HCM 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		1530	-	-	1548	-	-	696	675	1015	735	673	995
Stage 1 - - - - 860 775 - 909 828 - Stage 2 - - - - 874 826 - 851 772 - Approach EB WB NB NB SB HCM Control Delay, s 2.9 0.5 9.8 9 HCM LOS A A 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 A	•		-	-	-	-	-						
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 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 A	· · · · · · · · · · · · · · · · · · ·	-	-	-	-	-	-	860		-			-
Approach EB WB NB SB HCM Control Delay, s 2.9 0.5 9.8 9 HCM LOS A 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 A A		-	-	-	-	-	-	874	826	-	851	772	-
HCM Control Delay, s 2.9 0.5 9.8 9 HCM LOS A 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 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	Annroach	ΕD			\//D			NID			CD		
Minor Lane/Major Mvmt NBLn1 EBL 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 A A													
Minor Lane/Major Mvmt NBLn1 EBL 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 A A		2.9			0.5						,		
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 A A	HCINI FO2							А			А		
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 A A													
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 A - A	Minor Lane/Major Mvm	nt l	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
HCM Control Delay (s) 9.8 7.4 0 - 7.3 0 - 9 HCM Lane LOS A A A - A A - A	Capacity (veh/h)		766	1530	-	-	1548	-	-	944			
HCM Lane LOS A A A - A	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 95th %tile Q(veh) 0 0.1 0 0.1			Α		Α	-	Α	Α	-				
	HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1			

Intersection												
Intersection Delay, s/veh	9.2											
Intersection LOS	Α											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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		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	А	А	А	Α

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	А	Α	Α	Α	
HCM 95th-tile Q	0.6	0.2	0.5	1.6	

Existing+P AM.syn Synchro 10 Report 01/28/2019 Hexagon

Through Vol

Lane Flow Rate

Geometry Grp Degree of Util (X)

Service Time

Convergence, Y/N

HCM Lane V/C Ratio

HCM Control Delay

HCM Lane LOS

HCM 95th-tile Q

Departure Headway (Hd)

RT Vol

Cap

207

49

269

0.44

5.885

Yes

616

0.437

13.4

В

2.2

48

32

169

6.597

Yes

546

12.6

В

1.3

3.885 4.622 4.342 3.477

0.31 0.278

32

98

159

0.31 0.279 0.816

Yes

571

11.8

В

1.1

6.315 5.477

363

92

547

Yes

667

0.82

28.1

D

8.5

Intersection													
Intersection Delay, s/v	eh20.1												
Intersection LOS	С												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 L	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach F	RighNB			SB			WB			EB			
Conflicting Lanes Righ	nt 1			1			1			1			
HCM Control Delay	12.6			11.8			13.4			28.1			
HCM LOS	В			В			В			D			
Lane	<u> </u>	NBLn1 E	EBLn1V	VBLn1	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								
TI 1 1 1 1		007	40	00	0/0								

Existing+P AM.syn Synchro 10 Report Hexagon 01/28/2019

Intersection												
Int Delay, s/veh	5.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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 I	Major1		1	Major2		ı	Minor1		1	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							Α			Α		
Minor Lane/Major Mvm	nt I	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					
		EDE	ND	NET	CDT	CDD
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥	00	10	4	†	7
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		-	-	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	, A	/lajor2	
						0
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		3.318	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	
			0.1			
HCM Control Delay, s	17.3		U. I		0	
HCM LOS	С					
Minor Lane/Major Mvn	nt	NBL	NBT I	EBLn1	SBT	SBR
Capacity (veh/h)		850	-	010	_	-
HCM Lane V/C Ratio		0.014		0.193	-	-
HCM Control Delay (s)		9.3	0	17.3	_	-
HCM Lane LOS		Α	A	С	-	-
HCM 95th %tile Q(veh)	0	-	0.7	-	-

	•	•	<u>†</u>	<u> </u>	<u> </u>	Ţ
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	WDL	VUIN	↑ ↑	NUN	JDL	<u> </u>
Traffic Volume (veh/h)	444	12	350	425	0	866
Future Volume (veh/h)	444	12	350	425	0	866
Number	7	14	330	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
. ,			U			U
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	
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	1.7	0.00	0.00	5.2
Lane Grp Cap(c), veh/h	544	0.03	1478	0.00	0.00	1478
V/C Ratio(X)	0.84	0.00	0.24	0.00	0.00	0.59
Avail Cap(c_a), veh/h	972	0.00	2269	0.00	0.00	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	В		Α			Α
Approach Vol, veh/h	457		350			866
Approach Delay, s/veh	10.2		5.2			6.6
Approach LOS	В		Α			А
	1	2	2	4	_	,
Timer	I	2	3	4	5	6
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+l1), 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			Α.			
TION ZUTU LOG						

	۶	→	•	•	←	•	•	†	~	/	↓	✓	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		414	7		414			4	7		4	7	
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	U	0.96	1.00	0	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	1700	245	69	122	215	17	65	350	16	
Adj No. of Lanes	0	2	1	0	2	0	0	1	17	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			0.27		0.27	
	242	3038						0.23	0.23 1527	289	0.27	1532	
Sat Flow, veh/h			1439	85	2454	665	662	1167			1559		
Grp Volume(v), veh/h	200	190	490	175	0	156	337	0	17	415	0	16	
Grp Sat Flow(s), veh/h/l		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	8.0	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		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/ve	h 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/vel		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%),ve	h/ln3.9	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	С	С	В	С		С	D		С	D		С	
Approach Vol, veh/h		880			331			354			431		
Approach Delay, s/veh		17.4			21.6			37.0			35.9		
Approach LOS		В			С			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),		4.0		4.0		4.0		4.0					
Max Green Setting (Gm		35.0		38.0		35.0		45.0					
Max Q Clear Time (g_c		21.2		18.3		8.8		21.9					
Green Ext Time (p_c),		3.9		2.1		2.2		2.8					
Intersection Summary													
HCM 2010 Ctrl Delay			25.5										
HCM 2010 LOS			C C										
HOW ZUTU LUS			C										

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	*	†	†	7		7	
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/li		1863	1863	1535	1774	1583	
Q Serve(q_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	11.0	7.0	1.00	1.00	1.00	
Lane Grp Cap(c), veh/h		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/vel		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	
%ile BackOfQ(50%),vel		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	В	С	В	D	В	
Approach Vol, veh/h		711	729		699	_	
Approach Delay, s/veh		33.2	14.9		40.9		
Approach LOS		C	В		D		
Timer	1	2	3	4	5	6	
Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc)		86.0		39.6	30.3	55.7	
Change Period (Y+Rc),		* 4.2		* 4.2	4.0	* 4.2	
Max Green Setting (Gm		* 82		* 60	45.0	* 33	
Max Q Clear Time (g_c		13.0		33.7	25.3	21.6	
Green Ext Time (p_c), s	6	1.6		1.7	1.0	1.6	
Intersection Summary							
HCM 2010 Ctrl Delay			29.5				
HCM 2010 LOS			С				
Notes							
	nal en	gine red	quires e	equal cle	earance	times f	for the phases crossing the barrier.

Existing+P AM.syn Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4	7		414		ሻ	ħβ	
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/li		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		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/vel		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	า 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%),vel		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	С			С		Α		D	D	В	Α	Α
Approach Vol, veh/h		213			263			825			1089	
Approach Delay, s/veh		32.1			13.1			45.0			9.5	
Approach LOS		С			В			D			Α	
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),		4.6		4.6	4.6	* 4.1		4.6				
Max Green Setting (Gm		43.7		27.1	15.9	* 24		27.1				
Max Q Clear Time (g_c		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			С									
Notes						No.	! !	l		11. 1		
* HCM 2010 computation	onal en	gine red	quires e	equal cle	earance	e times f	or the p	nases	crossin	g the ba	arrier.	

Existing+P AM.syn Hexagon

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Movement	EBL	EBT	WBT	WBR	SBL	SBR			Į
Lane Configurations	ሻሻ	†	11	אטוע	JDL ħ	77			
Traffic Volume (veh/h)	566	1670	595	176	524	778			
Future Volume (veh/h)		1670	595	176	524	778			
Number	1	6	2	170	3	18			
Initial Q (Qb), veh	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00	0	J	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			
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/		1670	1695	1608	1774	1393			
Q Serve(q_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	10.7	7.0	0.69	1.00	1.00			
Lane Grp Cap(c), veh/h		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			
	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)		11.7	22.1	22.3	22.1	10.4			
Uniform Delay (d), s/veh									
Incr Delay (d2), s/veh	6.0	1.0	2.0	4.6	6.9	0.3			
Initial Q Delay(d3),s/ve		0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),ve		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	С	В	<u>C</u>	С	C 1202	В			
Approach Vol, veh/h		2236	771		1302				
Approach Delay, s/veh		18.2	25.0		18.1				
Approach LOS		В	С		В				
Timer	1	2	3	4	5	6	7	8	
Assigned Phs	1	2				6		8	
Phs Duration (G+Y+Ro	2), 1\$8.6	25.4				44.0		30.1	
Change Period (Y+Rc)		4.0				4.0		4.0	
Max Green Setting (Gr		18.0				40.0		32.0	
Max Q Clear Time (g_c		11.9				18.7		22.1	
Green Ext Time (p_c),		2.5				12.7		4.0	
Intersection Summary									
			10.4						
HCM 2010 Ctrl Delay			19.4						
HCM 2010 LOS			В						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	*	4	7	*	1→		ሻ	^	7	*	^	7	
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/li		0	1572	1774	0	1676	1774	1770	1545	1774	1770	1539	
Q Serve(q_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	0.0	1.00	1.00	0.0	0.55	1.00	0.0	1.00	1.00	00.0	1.00	
Lane Grp Cap(c), veh/h		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/vel		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/vel		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%),vel		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	Ε		Е	Е		Е	В	Α	Α	F	D	С	
Approach Vol, veh/h		667			70			1019			1391		
Approach Delay, s/veh		70.1			74.0			2.3			46.5		
Approach LOS		Ε			Е			Α			D		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2	<u> </u>	4	5	6		8					
Phs Duration (G+Y+Rc)		110.5		13.5	57.8	58.9		29.7					
Change Period (Y+Rc),		4.6		* 4.2	4.6	* 4.6		4.0					
Max Green Setting (Gm		71.4		* 28	17.0	* 60		38.0					
Max Q Clear Time (q_c		2.0		5.5	5.9	40.5		23.9					
Green Ext Time (p_c), s		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 pedestri	an inte	rval to b	oe less	than ph	ase ma	x greer	١.						
						J							

Existing+P AM.syn Hexagon

HCM Lane LOS

HCM 95th-tile Q

С

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Intersection Delay, s/veh30.9 Intersection LOS	Intersection												
Movement		h30.9											
Movement													
Lane Configurations													
Lane Configurations	Movement	FRI	FRT	FRR	WRI	WRT	WRR	NRI	NRT	NRR		SBL	SBL SBT
Traffic Vol, veh/h 34 267 68 205 305 33 73 118 214 Future Vol, veh/h 34 267 68 205 305 33 73 118 214 Future Vol, veh/h 34 267 68 205 305 33 73 118 214 Peak Hour Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0							WDIX	NDL				JDL	<u>30L 301</u>
Future Vol, veh/h Peak Hour Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0							33	73				37	
Peak Hour Factor												37	
Heavy Vehicles, % 2 2 2 2 2 2 2 2 2												1.00	
Mvmt Flow 34 267 68 205 305 33 73 118 214 Number of Lanes 1 1 1 1 1 0 0 1 1 Approach EB WB NB NB<											·	2	
Number of Lanes											1	37	
Approach EB WB NB SE Opposing Approach WB EB SB NB Opposing Lanes 2 3 1 2 Conflicting Approach Left SB NB EB WE Conflicting Lanes Left 1 2 3 2 Conflicting Approach RighNB SB WB EE Conflicting Lanes Right 2 1 2 3 HCM Control Delay 28.1 38.9 22.1 32 HCM LOS D E C C Lane NBLn1 NBLn2 EBLn1 EBLn2 EBLn3WBLn1WBLn2 SBLn1 VOI Left, % 38% 0% 100% 0% 100% 0% 15% Vol Left, % 38% 0% 100% 0% 100% 0% 15% Vol Thru, % 62% 0% 0% 100% 0% 0% 90% 63% Vol Right, % 0% 100% 0% 0% 10% 22%											(
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 RighNB 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 EBLn3WBLn1WBLn2 SBLn1 VOI Left, W 38% 0% 100% 0% 100% 0% 15% Vol Left, % 38% 0% 100% 0% 0% 100% 0% 15% Vol Right, % 0% 100% 0% 0% 100% 0% 100% 0% 100% 22% Sign Control Stop Stop Stop Stop Stop Stop Stop Stop		ED			WD			ND					
Opposing Lanes 2 3 1 2 Conflicting Approach Left SB NB EB WB Conflicting Lanes Left 1 2 3 2 Conflicting Approach RighNB 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 EBLn3WBLn1WBLn2 SBLn1 WBLn2 SBLn1 Vol Left, % 38% 0% 100% 0% 0% 100% 0% 10													
Conflicting Approach Left SB NB EB WB Conflicting Lanes Left 1 2 3 3 2 Conflicting Approach RighNB SB WB EB Conflicting Lanes Right 2 1 2 3 3 2 HCM Control Delay 28.1 38.9 22.1 32 HCM LOS D E C C D Lane NBLn1 NBLn2 EBLn1 EBLn2 EBLn3WBLn1WBLn2 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% 100% 22% Sign Control Stop Stop Stop Stop Stop Stop Stop Stop													
Conflicting Lanes Left 1 2 3 3 2 Conflicting Approach RighNB 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 EBLn3WBLn1WBLn2 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% 100% 22% Sign Control Stop Stop Stop Stop Stop Stop Stop Stop													
Conflicting Approach RighNB 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 EBLn3WBLn1WBLn2 SBLn1 Vol Left, % 38% 0% 100% 0% 0% 100% 0% 0% 100% 0% 10% 0% 10% 0% 10% 22% Sign Control Stop Stop Stop Stop Stop Stop Stop Stop													
Conflicting Lanes Right 2													
HCM Control Delay 28.1 38.9 22.1 32	<u> </u>	0											
Lane NBLn1 NBLn2 EBLn1 EBLn2 EBLn3WBLn1WBLn2 SBLn1 Vol Left, % 38% 0% 100% 0% 0% 100% 0% 15% Vol Thru, % 62% 0% 0% 100% 0% 90% 63% Vol Right, % 0% 100% 0% 100% 0% 100% 22% Sign Control Stop													
Lane NBLn1 NBLn2 EBLn1 EBLn2 EBLn3WBLn1WBLn2 SBLn1 Vol Left, % 38% 0% 100% 0% 0% 0% 100% 0% 0% 15% Vol Thru, % 62% 0% 0% 100% 0% 100% 0% 0% 90% 63% Vol Right, % 0% 100% 0% 100% 0% 100% 0% 10% 22% Sign Control Stop Stop Stop Stop Stop Stop Stop Stop													
Vol Left, % 38% 0% 100% 0% 100% 0% 15% Vol Thru, % 62% 0% 0% 100% 0% 90% 63% Vol Right, % 0% 100% 0% 100% 0% 100% 90% 63% Sign Control Stop 10 0 <td>HCM LOS</td> <td>D</td> <td></td> <td></td> <td>Е</td> <td></td> <td></td> <td>С</td> <td></td> <td></td> <td>D</td> <td></td> <td></td>	HCM LOS	D			Е			С			D		
Vol Left, % 38% 0% 100% 0% 100% 0% 15% Vol Thru, % 62% 0% 0% 100% 0% 90% 63% Vol Right, % 0% 100% 0% 100% 0% 100% 22% Sign Control Stop 20 0 <td></td>													
Vol Left, % 38% 0% 100% 0% 00% 100% 0% 15% Vol Thru, % 62% 0% 0% 100% 0% 90% 63% Vol Right, % 0% 100% 0% 100% 0% 100% 22% Sign Control Stop 10<	Lane	N	NBLn1 I	NBLn2 I	EBLn1	EBLn2	EBLn3\	VBLn1\	WBLn2	SBLn1			
Vol Thru, % 62% 0% 0% 100% 0% 0% 90% 63% Vol Right, % 0% 100% 0% 100% 0% 100% 0% 10% 22% Sign Control Stop 338 251 Description 159 RT RT 400 0 <td></td>													
Vol Right, % 0% 100% 0% 100% 0% 100% 22% Sign Control Stop 20 338 251 Stop Stop Stop 20 338 251 Stop Stop Stop 388 8<													
Sign Control 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 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													
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 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													
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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 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 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					~ ~ ~								
Lane Flow Rate 191 214 34 267 68 205 338 251 Geometry Grp 8 9 20 20 25 0.52 0.52 0.52 0.682 8.952 9.759 9.163 9.886 0.088 0.086 0.086 0.086 0.086 0.086 0.086 0.086 0.086 0.086 0.086				-	-								
Geometry Grp 8 9 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>													
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Departure Headway (Hd) 9.842 8.917 10.204 9.682 8.952 9.759 9.163 9.886 Convergence, Y/N Yes Yes <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>													
Convergence, Y/N Yes	0 ,												
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		ω <i>)</i>											
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 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			

Existing+P AM.syn
Hexagon
Synchro 10 Report
01/28/2019

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		414			414		ሻ	ተተኈ		ሻ	^	7	
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	0.00	950	791	925	1774	4853	336	1774	3539	1583	
		69											
Grp Volume(v), veh/h	74		0	279	0	292	57 1774	1030	546 1799	172 1774	1298 1770	0 1583	
Grp Sat Flow(s), veh/h/lr		1610	0	1158	0	1507		1695					
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	40.4	0.00	0.82		0.61	1.00	4/75	0.19	1.00	0407	1.00	
Lane Grp Cap(c), veh/h		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/vel		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	31.4	96.0	78.9	0.0	0.0	0.0	
%ile BackOfQ(50%),vel		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		Е		Е	F	F	F	Е	С		
Approach Vol, veh/h		143			571			1633			1470		
Approach Delay, s/veh		51.4			68.9			135.5			29.9		
Approach LOS		D			Е			F			С		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2		4	5	6		8					
Phs Duration (G+Y+Rc)	\$U 3	96.0		52.3	11.3			52.3					
Change Period (Y+Rc),		4.0		4.0	4.0	4.0		4.0					
Max Green Setting (Gm		92.0		67.0		111.0		67.0					
Max Q Clear Time (g_c-		39.8		33.5	7.7	41.1		44.4					
Green Ext Time (p_c), s													
, — ,·	o U.4	17.3		0.8	0.0	14.8		3.9					
Intersection Summary			04 =										
HCM 2010 Ctrl Delay			81.7										
HCM 2010 LOS			F										

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	*	ħ₽		ሻሻ	†	7	ሻ	† †	7	ሻሻ	^	7	
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/li		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		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/vel		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	
%ile BackOfQ(50%),vel		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	В	F	CC	A	
Approach Vol, veh/h		489			843			2041			1592		
Approach Delay, s/veh		88.2 F			72.1			27.6			30.9 C		
Approach LOS		F			Е			С			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)		93.0	25.9	23.1	11.6	98.7	18.0	31.0					
Change Period (Y+Rc),		4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Max Green Setting (Gm		89.0	29.0	24.0	13.0	93.0	20.0	33.0					
Max Q Clear Time (g_c		53.9	20.9	18.1	8.0	39.0	13.9	23.6					
Green Ext Time (p_c), s	5 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	s to righ	nt turn ty	ype.										

Existing+P AM.syn Hexagon

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Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	ሻሻ	77	^			^			
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	0.00	0.00	3725			
Grp Volume(v), veh/h	745	586	1728	0	0	971			
Grp Sat Flow(s), veh/h/l		1393	1728	0	0	1770			
1 1 7 7 7	16.2	15.6	28.4		0.0	11.2			
Q Serve(g_s), s				0.0					
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	2224	0.00	0.00	2224			
Lane Grp Cap(c), veh/h		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/ve		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/vel		0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),ve		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	С	С	В			Α			
Approach Vol, veh/h	1331		1728			971			
Approach Delay, s/veh			12.4			8.2			
Approach LOS	С		В			Α			
	4				-		-	0	
Timer	1	2	3	4	5	6		8	
Assigned Phs		2				6		8	
Phs Duration (G+Y+Rc		54.4				54.4		25.6	
Change Period (Y+Rc),		4.1				4.1		4.2	
Max Green Setting (Gm		46.7				46.7		25.0	
Max Q Clear Time (g_c		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			В						
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Movement EE	BL F	EBR	NBL	NBT	SBT	SBR
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Traffic Volume (veh/h) 124		450	0	966	1513	0
Future Volume (veh/h) 124		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) 1.0		1.00	1.00	U	U	1.00
, - · ·		1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln 186		1863	0	1863	1863	0
Adj Flow Rate, veh/h 124		450	0	966	1513	0
Adj No. of Lanes	2	1	0	2	2	0
Peak Hour Factor 1.0		1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
Cap, veh/h 134	16 (619	0	1792	1792	0
Arrive On Green 0.3	39 0	0.39	0.00	0.51	1.00	0.00
Sat Flow, veh/h 344	12 1	1583	0	3725	3725	0
Grp Volume(v), veh/h 124		450	0	966	1513	0
Grp Sat Flow(s), veh/h/ln172		1583	0	1770	1770	0
Q Serve(q_s), s 27		19.3	0.0	14.8	0.0	0.0
Cycle Q Clear(q_c), s 27		19.3	0.0	14.8	0.0	0.0
Prop In Lane 1.0		1.00	0.00	14.0	0.0	0.00
·				1702	1702	
Lane Grp Cap(c), veh/h 134		619	0	1792	1792	0
V/C Ratio(X) 0.9		0.73	0.00	0.54	0.84	0.00
Avail Cap(c_a), veh/h 141		651	0	1792	1792	0
HCM Platoon Ratio 1.0		1.00	1.00	1.00	2.00	1.00
Upstream Filter(I) 1.0	00 1	1.00	0.00	1.00	0.78	0.00
Uniform Delay (d), s/veh 23	.3 2	20.7	0.0	13.4	0.0	0.0
Incr Delay (d2), s/veh 10		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
%ile BackOfQ(50%),veh/lr5		8.9	0.0	7.4	1.0	0.0
LnGrp Delay(d),s/veh 33		24.0	0.0	14.6	4.0	0.0
	.5 Z	C C	0.0	В	Α.	0.0
Approach Vol, veh/h 169				966	1513	
Approach Delay, s/veh 31				14.6	4.0	
Approach LOS	С			В	Α	
Timer	1	2	3	4	5	6
Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s	Δ	44.6		35.4		44.6
Change Period (Y+Rc), s		4.1		4.1		4.1
		38.9		32.9		38.9
Max Green Setting (Gmax),						
Max Q Clear Time (g_c+I1)		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			В			
1101/11 2010 203			D			

HCM Lane V/C Ratio

HCM Control Delay

HCM Lane LOS

HCM 95th-tile Q

Intersection												
Intersection Delay, s/vel	h12.8											
Intersection LOS	В											
mioroccion 200												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	LDL	419	LDI	WDL	₩ 41}	WDI	NDL	4	NDIX	JDL	3D1 ↔	JUIN
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 Le	ft SB			NB			EB			WB		
Conflicting Lanes Left	1			1			2			2		
Conflicting Approach Rig	ghtNB			SB			WB			EB		
Conflicting Lanes Right	1			1			2			2		
HCM Control Delay	12.2			13.5			12.8			12.3		
HCM LOS	В			В			В			В		
Lane	N	NBLn1 I	EBLn1	EBLn2V	WBLn1\	VBLn2	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 (Ho	d)	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			4.334	4.098	4.259	4.004	4.394					
110111 110 5 11		0.050	0.044	0.007	0 440	0.054	0.040					

Existing+P AM.syn
Hexagon
Synchro 10 Report
01/28/2019

12.3

В

1.3

0.359 0.311 0.326 0.449 0.351 0.319

В

1.4

12.1 14.4 12.4

В

2.3

В

1.6

12.8

В

1.6

12.3

В

1.3

Intersection												
Int Delay, s/veh	6.6											
		CDT	רחח	WDI	WDT	WDD	NDI	NDT	NDD	CDI	CDT	CDD
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	F.0	4Th	-	•	€ 1₽	00	•	4	0.5	0.0	4	0.4
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 N	1ajor1			Major2			/linor1		Λ	/linor2		
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	_
g = -												
Annroach	ED			WD			ND			CD		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.3			20.6			43.2		
HCM LOS							С			Е		
Minor Lane/Major Mvmt	<u> </u>	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	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	-				
HCM Lane LOS		С	Α	Α	-	Α	Α	-	Ε			
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		4			4			4			4	
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	e,# -	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		1	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							Α.			В		
							, ,					
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1			
Capacity (veh/h)		860	1435	-		1473	-	-				
HCM Lane V/C Ratio		0.094	-	_		0.043	_		0.018			
HCM Control Delay (s)		9.6	0	_	_	7.6	0	_				
HCM Lane LOS		Α.	A	_	-	Α.	A	_	В			
HCM 95th %tile Q(veh))	0.3	0	_	_	0.1	-	_	0.1			
7001 70010 2(1011)		0.0				J. 1			3.1			

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	2,# -	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 I	Major1			Major2		ľ	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							В			В		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		689	1484	-	-	1502	-	-	622			
HCM Lane V/C Ratio		0.042		-	_	0.051	-	_	0.124			
HCM Control Delay (s)		10.5	7.4	0	-	7.5	0	-	11.6			
HCM Lane LOS		В	Α	A	-	A	A	-	В			
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		4			4			4			4	
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	e,# -	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 N	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							В			В		
Minor Lane/Major Mvm	nt r	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1			
Capacity (veh/h)		720	1406	-		1509	-	-				
HCM Lane V/C Ratio		0.039		_		0.037	_		0.025			
HCM Control Delay (s)		10.2	7.6	0	_	7.5	0	-				
HCM Lane LOS		В	Α.	A	-	7.5 A	A	_	В			
HCM 95th %tile Q(veh))	0.1	0	-	_	0.1	-	-	0.1			
		J. 1				3.1			3.1			

Intersection						
Int Delay, s/veh	3.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<u>₽</u>	LUK	WDL	₩D1	NDL W	NOIX
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		
RT Channelized	riee -	None			Stop	Stop None
			-		-	
Storage Length	-	-	-	-	0	-
Veh in Median Storage,		-	-	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 N	1ajor1	N	Major2	1	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	_	_	-7.12	_	5.42	0.22
Critical Hdwy Stg 2	-	_	_	_	5.42	-
Follow-up Hdwy	-	<u>-</u>	2.218	-	3.518	
Pot Cap-1 Maneuver	-	-	1480	-	766	945
	-	-	1400	-	916	940
Stage 1	-	-	-	-		
Stage 2	-	-	-	-	907	-
Platoon blocked, %	-	-	1 17/	-	1	042
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	- 0		2.0		7.3 A	
TIOWI LOO					Α	
Minor Lane/Major Mvmt	: N	VBLn1	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		Α	-	-	Α	Α
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		4			4			4			4	
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	e,# -	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 I	Major1		ı	Major2		1	Minor1		1	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							В			Α		
Minor Lane/Major Mvm	nt N	VBLn1	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		В	A	A	-	Α	A	-	Α			
HCM 95th %tile Q(veh))	0.1	0.2	-	-	0	-	-	0.3			

Intersection		
Intersection Delay, s/veh	8.5	
Intersection LOS	Α	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		₩			4			₩			4	
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	Α			Α			Α			Α		

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	А	Α	Α	А	
HCM 95th-tile Q	0.6	0.3	0.4	1	

Intersection				
Intersection Delay, s/v	eh19.3			
Intersection LOS	С			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 Lo	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach R	ighNB			SB			WB			EB			
Conflicting Lanes Right	1			1			1			1			
HCM Control Delay	13			15.5			16			25.8			
HCM LOS	В			С			С			D			

Lane	NBLn1	EBLn ₁ \	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	С	В	С	D
HCM 95th-tile Q	3	1.2	2.7	7

Intersection												
Int Delay, s/veh	4.5											
		EDT	EDD	MDI	MOT	MOD	NDI	NDT	NDD	001	ODT	000
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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 N	Major1			Major2			Vinor1			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	_
g · -											,	
Annroach	ED			MD			ND			CD		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			1.3			9.4			9.3		
HCM LOS							А			А		
Minor Lane/Major Mvm	nt I	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		Α	A	A	-	A	A	-	Α			
HCM 95th %tile Q(veh))	0.3	0	-	-	0	-	-	0			

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	CDT	CDD
	EBL	EBK	NDL	INR I	SBT	SBR 7
Lane Configurations		21	22			
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	e, # 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
WWW.CT TOW				770	070	02
	Minor2		Major1		/lajor2	
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		3.318	2.218	_	_	_
Pot Cap-1 Maneuver	102	452	873	_	_	_
Stage 1	504	732	073	_	_	_
	349	-		-	-	-
Stage 2	349	-	-	-		
Platoon blocked, %	0.4	454	074	-	-	-
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	С					
Minor Lane/Major Mvm	nt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)		871	-	321	-	OBIL
Capacity (Venin)				0.193		-
HCM Land V/C Datio				U. 193	-	-
HCM Cantral Dalay (c)		0.025				
HCM Control Delay (s)		9.2	0	18.9	-	-
					-	-

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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	WDL	אטוע	† ↑	אטונ	JDL	<u>361</u>
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	U	1.00	1.00	U
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	1.00	1.00	2	0	1.00	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	0.00	3507	0.00	0.00	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	0.00	4.0	0.00	0.00	4.3
	1.4	0.0	0.1	0.0	0.0	0.2
Incr Delay (d2), s/veh						
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	Α		Α			Α
Timer	1	2	3	4	5	6
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
		3.4		5.3		4.4
Max Q Clear Time (g_c+l1), s						
Green Ext Time (p_c), s		2.5		0.1		3.5
Intersection Summary						
HCM 2010 Ctrl Delay			5.4			
HCM 2010 LOS			А			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		41∱	7		4î>			4	7		4	7
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	8.0	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	С	С	Α	С		С	D		С	D		С
Approach Vol, veh/h		639			508			358			464	
Approach Delay, s/veh		16.6			23.1			37.3			35.2	
Approach LOS		В			С			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			С									

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	ሻ	†	†	7	*	7	
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	
nitial 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	
2 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	7.0	17.0	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	
Jpstream 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	
nitial 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	
_nGrp Delay(d),s/veh	63.4	7.6	28.2	13.7	61.0	22.3	
LnGrp LOS	03.4 E	7.0 A	20.2 C	13.7 B	61.0 E	22.3 C	
Approach Vol, veh/h		685	993	D	689	<u> </u>	
Approach Vol, ven/n Approach Delay, s/veh		38.8	19.3		44.2		
Approach LOS		30.0 D	19.3 B		44.2 D		
· ·							
<u>Fimer</u>	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+l1), 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			С				
Notes							
* HCM 2010 computational en	aine reau	uires equa	al clearan	ice times f	or the ph	ases cros	ssing the barrier

Existing+P PM.syn Hexagon

	•	→	•	•	←	•	•	†	~	>	↓	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4	7		4P		ň	↑ ↑	
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	C
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	C
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	Е			Е		В	Е		Е	С	Α	А
Approach Vol, veh/h		74			260			970			863	
Approach Delay, s/veh		64.4			24.5			57.6			5.8	
Approach LOS		E			С			E			А	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	<u> </u>	4	5	6	1	8				
		120.1		19.9	70.7	49.4		19.9				
Phs Duration (G+Y+Rc), s						* 4.1		4.6				
Change Period (Y+Rc), s		4.6 100.4		4.6	4.6	* 73		30.4				
Max Green Setting (Gmax), s				30.4	23.9							
Max Q Clear Time (g_c+I1), s Green Ext Time (p_c), s		8.3 5.4		14.1	7.9 0.1	38.1 7.2		6.9 0.8				
Intersection Summary		0.1		3.0	J. 1	,		3.0				
HCM 2010 Ctrl Delay			33.2									
HCM 2010 CIT Delay			33.2 C									
HOW ZUTU LUS			C									
Notes												
* HCM 2010 computational en	gine req	uires equa	al clearan	ce times	for the ph	ases cros	ssing the	barrier.				

Existing+P PM.syn Hexagon

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Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	ሻሻ	↑ ↑↑	11	WER	ሻ	77		
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(q_c), s	10.6	3.9	19.4	19.4	9.3	10.2		
Prop In Lane	1.00	3.9	19.4	0.58	1.00	1.00		
	682	3466	1438	701	355	1109		
Lane Grp Cap(c), veh/h V/C Ratio(X)	0.83	0.22	0.78	0.79	0.73	0.50		
		3466		701	421	1213		
Avail Cap(c_a), veh/h	816		1438		1.00	1.00		
HCM Platoon Ratio	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	С	A	CC	С	C	В		
Approach Vol, veh/h		1338	1679		819			
Approach Delay, s/veh		15.9	22.5		20.4			
Approach LOS		В	С		С			
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			В					
110111 2010 200			D					

Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h	471 471 3 0 1.00 1.00 1863 487 2 1.00	EBT 23 23 8 0 1.00 1863	99 99 18 0	WBL 66 66 7	WBT 29 29	WBR 48	NBL 185	NBT ↑↑ 925	NBR ** 67	SBL 1	SBT	SBR
Traffic Volume (veh/h) Future Volume (veh/h) Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	471 471 3 0 1.00 1.00 1863 487 2	23 23 8 0	99 99 18 0	66 66 7	29 29							7
Future Volume (veh/h) Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	471 3 0 1.00 1.00 1863 487 2	23 8 0	99 18 0	66 7	29		185	925	67	21	112	
Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	3 0 1.00 1.00 1863 487 2	1.00	18 0	7		40			01	۷١	662	335
Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	0 1.00 1.00 1863 487 2	1.00	0		4	48	185	925	67	21	662	335
Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	1.00 1.00 1863 487 2	1.00		Λ	4	14	5	2	12	1	6	16
Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	1.00 1863 487 2		0.99	U	0	0	0	0	0	0	0	C
Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	1863 487 2			1.00		0.99	1.00		0.97	1.00		0.97
Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	487 2	1863	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	2	1000	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane		0	99	66	29	48	185	925	67	21	662	335
Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	1 00	0	1	1	1	0	1	2	1	1	2	1
Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	2	2	2	2	2	2	2	2	2	2	2	2
Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	608	0	270	158	56	92	124	1960	996	31	1775	1045
Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	0.17	0.00	0.17	0.09	0.09	0.09	0.07	0.55	0.55	0.02	0.50	0.50
Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	3548	0	1572	1774	626	1037	1774	3539	1544	1774	3539	1543
Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	487	0	99	66	0	77	185	925	67	21	662	335
Cycle Q Clear(g_c), s Prop In Lane	1774	0	1572	1774	0	1663	1774	1770	1544	1774	1770	1543
Prop In Lane	13.2	0.0	5.6	3.5	0.0	4.4	7.0	15.8	1.6	1.2	11.5	9.1
	13.2	0.0	5.6	3.5	0.0	4.4	7.0	15.8	1.6	1.2	11.5	9.1
Lane Grn Can(c) veh/h	1.00		1.00	1.00		0.62	1.00		1.00	1.00		1.00
Land Cip Cap(o), voiiin	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	В	Α	E	В	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			Е			В	
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+l1), 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												
Notes			D									
User approved pedestrian interv			D									

Existing+P PM.syn Hexagon

Intersection												
Intersection Delay, s/veh	129.2											
Intersection LOS	D											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<u> </u>	T T	ሻ	7	WDIN	NDL	4	T T	JDL	4	JUIN
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
Mymt Flow	45	346	87	182	239	21	88	147	220	39	123	28
Number of Lanes	1	1	1	102	237	0	00	147	1	0	123	0
	•	'	<u>'</u>		<u>'</u>	0		'	· ·		'	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	2			3			1			2		
Conflicting Approach Lef				NB			EB			WB		
Conflicting Lanes Left	1			2			3			2		
Conflicting Approach Rig				SB			WB			EB		
Conflicting Lanes Right	2			1			2			3		
HCM Control Delay	40			25.8			23.5			23.7		
HCM LOS	Ε			D			С			С		
Lane	N	IBLn11	NBLn2 I	EBLn1	EBLn2	EBLn3\	VBLn1\	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		0.12	0.875	0.202	0.495	0.665	0.53			
Departure Headway (Hd								9.204				
Convergence, Y/N		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Cap		381	422	372	398	427	368	393	357			
Service Time		7.229		7.403					7.84			
HCM Lane V/C Ratio								0.662				
HCM Control Delay		26.4	20.3	13.7	50.1	13.3	21.9	28.6	23.7			
HCM Lane LOS		D	С	В	F	В	С	D	С			
HCM 95th-tile Q		4	2.9	0.4	8.7	0.7	2.6	4.6	3			
				- '	-	- '	-		-			

Existing+P PM.syn Synchro 10 Report 12/18/2018 Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4T+			۔}		ሻ	ተተ _ጉ		ħ	† †	7
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(q_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	0.00	0.58	0.0	0.92	1.00	27.0	0.22	1.00	00	1.00
Lane Grp Cap(c), veh/h	186	376	0.00	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	0.0	E	0.0	E	F	E	E	E	В	0.0
Approach Vol, veh/h		155			470		-	1366			1515	
Approach Delay, s/veh		59.6			72.5			63.6			23.3	
Approach LOS		E			, <u>2</u> .6			E			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	<u> </u>	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		40.5				
Max Green Setting (Gmax), s	34.0	101.0		58.0	14.0	121.0		58.0				
Max Q Clear Time (g_c+l1), 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	0.9	16.5		2.9				
	0.4	13.4		U. 7	0.0	10.5		۷.7				
Intersection Summary HCM 2010 Ctrl Delay			47.2									
HCM 2010 LOS			47.2 D									
HOW ZUTU LUS			D									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	† ‡		ሻሻ	†	7	7	^	7	ሻሻ	† †	7
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(q_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	Ε	Е	Ε	Ε	D	С	Ε	С	Α	Ε	С	В
Approach Vol, veh/h		535			1095			1587			1582	
Approach Delay, s/veh		64.2			46.1			22.7			30.9	
Approach LOS		Е			D			С			С	
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 (q_c+l1), 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 righ	nt turn ty	pe.										
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Existing+P PM.syn Hexagon

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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	ሻሻ	77	† †			^	
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	0.00	0.00	3725	
Grp Volume(v), veh/h	510	245	2042	0	0	766	
1 ' '			1770			1770	
Grp Sat Flow(s), veh/h/ln	1721	1393		0	0		
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	0.404	0.00	0.00	0.404	
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	С	С	В			Α	
Approach Vol, veh/h	755		2042			766	
Approach Delay, s/veh	31.2		10.2			4.9	
Approach LOS	С		В			Α	
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+l1), s		34.6				8.6	13.2
Green Ext Time (p_c), s		10.2				6.3	2.4
ч — 7		10.2				0.5	۷.۹
Intersection Summary			10.5				
HCM 2010 Ctrl Delay			13.5				
HCM 2010 LOS			В				

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Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	ሻሻ	Į,	HUL	†	<u> </u>	ODIC	
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	0.00	3725	3725	0.00	
	1352	403	0	1015	884	0	
Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0	
Q Serve(g_s), s	29.4	1583	0.0	1770	2.7	0.0	
			0.0	17.2	2.7	0.0	
Cycle Q Clear(g_c), s Prop In Lane	29.4	15.5		17.2	2.1		
	1.00	1.00	0.00	1/40	1/40	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	С	В		В	A		
Approach Vol, veh/h	1755			1015	884		
Approach Delay, s/veh	25.4			17.7	2.7		
Approach LOS	С			В	Α		
Timer	1	2	3	4	5	6	
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+l1), s		19.2		31.4		4.7	
Green Ext Time (p_c), s		4.2		3.1		4.6	
Intersection Summary		1.4		J. 1		1.0	
			17.0				
HCM 2010 Ctrl Delay			17.8				
HCM 2010 LOS			В				

Intersection					
Intersection Delay, s/\ Intersection LOS	/eh12.6				
Intersection LOS	В				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		414			414			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			2			2			
Conflicting Approach Ri	ghNB			SB			WB			EB			
Conflicting Lanes Right	1			1			2			2			
HCM Control Delay	13.6			11.9			11.8			11.7			
HCM LOS	В			В			В			В			

Lane	NBLn1	EBLn1	EBLn2V	VBLn1V	VBLn2	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	В	В	В	В	В	В	
HCM 95th-tile Q	1.2	2.4	2.2	1.4	1.1	1	

Interception												
Intersection Int Delay, s/veh	3.1											
ini Delay, S/ven												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		414			€1 }			4			4	
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 M	ajor1			Major2		N	/linor1		Λ	/linor2		
Conflicting Flow All	676	0	0	665	0	0	1157	1534	366	1196	1519	354
Stage 1	-	-	U	000	-	-	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	T. 14	-		7.14	_	-	6.54	5.54	0.74	6.54	5.54	0.74
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	711		_	720	_	_	336	388	-	400	443	- 042
Stage 2	-		_	_	_	_	649	432	_	518	384	-
Platoon blocked, %		_	_		_	_	017	102		010	- 00 f	
Mov Cap-1 Maneuver	887	_	_	908	_	_	113	91	610	112	94	625
Mov Cap-1 Maneuver Mov Cap-2 Maneuver	-		_	700	_	_	113	91	-	112	94	023
Stage 1	_		_	_	_	_	284	328	_	334	416	-
Stage 2	_		_	_	_	_	549	406	_	420	325	_
Jugo Z							J 7 /	700		720	323	
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.5			0.4			20.6			26.3		
HCM LOS							С			D		
Minor Lane/Major Mvmt		NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1			
Capacity (veh/h)		255	887		-	908	-	-	274			
HCM Lane V/C Ratio			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	Α	Α	_	A	A	_	D			
HCM 95th %tile Q(veh)		0.3	0.3	-	_	0.1	-	_	1.8			
		0.0	3.0			3.1			1.0			

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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 N	Major1			Major2		1	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	7.12	_	_	-	-	_	6.12	5.52	0.22	6.12	5.52	- 0.22
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	1770			1010	-	-	925	826	7/0	894	804	700
Stage 2	-			_	_	_	896	803	-	916	822	-
Platoon blocked, %						_	070	003		710	UZZ	
Mov Cap-1 Maneuver	1493			1509	-	-	762	692	976	736	689	956
Mov Cap-1 Maneuver	1473			1307	_	-	762	692	7/0	736	689	750
Stage 1	-	-	-	-	-	-	923	824	-	890	797	-
Stage 2							889	796	-	899	820	-
Siayt 2	-	-	-	-	-	-	007	170		077	020	-
Approach	EB			WB			NB			SB		
				0.6						9.7		
HCM LOS	0.1			0.0			9.4					
HCM LOS							А			А		
Minor Long/Mair M		VIDL1	EDI	EDT	EDD	MDI	WDT	MDD	CDL1			
Minor Lane/Major Mvm	IL I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:				
Capacity (veh/h)		843	1493	-		1509	-	-	765			
HCM Lane V/C Ratio		0.036		-	-	0.005	-	-	0.008			
HCM Control Delay (s)		9.4	7.4	0	-	7.4	0	-	9.7			
HCM Lane LOS		Α	Α	Α	-	Α	Α	-	Α			
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	LDL	4	LDIN	WDL	₩	WDIX	NDL	4	NDN	JUL	- JDT - ♣	JUIN
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	10	0	10	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	Jiop -	Jiop -	None	Jiop -	Jiop -	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 I	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	68	0	0	48	0	0	159	145	46	156	144	65
Stage 1	00	U	0	40	0	Ū	59	59	40	82	82	0.5
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	- 0.22	6.12	5.52	- 0.22
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			Α		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SRI n1			
	it l						VVD1					
Capacity (veh/h) HCM Lane V/C Ratio		834 0.058	1530 0.005	-	-	1556 0.006	-	-	774 0.056			
HCM Control Delay (s)		9.6	7.4	0	-	7.3	0	-	9.9			
HCM Lane LOS		9.6 A	7.4 A	A	-	7.3 A	A	-	9.9 A			
HCM 95th %tile Q(veh)	0.2	0	- A	-	0	- A	-	0.2			
HOW 75th 70the Q(Veh)		0.2	U	-		- 0	-	-	0.2			

Intersection Int Delay, s/veh 3 Movement EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL SBT SBR Lane Configurations 4 4 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
Movement EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL SBT SBR cane Configurations Fraffic Vol, veh/h 1 46 2 13 55 2 7 11 13 1 3 5
Anne Configurations
Fraffic Vol, veh/h 1 46 2 13 55 2 7 11 13 1 3 5
inture Vol. veh/h 1 16 2 13 55 2 / 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 Stop Stop Stop Stop Stop Stop
RT Channelized None None None
Storage Length
/eh in Median Storage, # - 0 0 0 -
Grade, % - 0 0 0 0 0 0 -
Peak Hour Factor 100 100 100 100 100 100 100 100 100 10
Heavy Vehicles, % 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 3 4 Vmt Flow 1 46 2 13 55 2 7 11 13 1 3 5
Avmt 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
Ainor Long/Major Mymt NDL n1 EDL EDT EDD WIDL WIDT WIDD CDL n1
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	<u>₽</u>	LDIN	VVDL	₩ <u>₩</u>	₩.	NDIX
Traffic Vol, veh/h	44	0	18	42	3	36
Future Vol, veh/h	44		18	42	3	36
		0	3		1	
Conflicting Peds, #/hr	0			0		0
	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage,		-	-	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
/						
	ajor1		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	-		3.318
Pot Cap-1 Maneuver	_	_	1560	_	869	1022
Stage 1	_	_	-	_	975	-
Stage 2	_	_	_	_	944	_
Platoon blocked, %	_			_	/ 7 7	
		-	1556		856	1019
Mov Cap-1 Maneuver	-	-		-		
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	U		2.2		Α	
FIGIVI EUS					A	
Minor Lane/Major Mvmt	١	VBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		1004	_	_	1556	-
			_		0.012	_
		0.039			J.J.L	
HCM Lane V/C Ratio		0.039	_	_	73	0
HCM Lane V/C Ratio HCM Control Delay (s)		8.7	-	-	7.3 Δ	0 Δ
HCM Lane V/C Ratio			-		7.3 A 0	0 A

Intersection												
Int Delay, s/veh	3.4											
	ΓDI	EDT	EDD	WDI	WDT	WDD	MDI	NDT	NDD	CDI	CDT	CDD
Movement Lang Configurations	EBL	EBT ♣	EBR	WBL	WBT	WBR	NBL	NBT ♣	NBR	SBL	SBT ♣	SBR
Lane Configurations	2/		0	г		1	2		2	2		ΩE
Traffic Vol, veh/h	36	50	8	5	65	4	2	4	3	2	3	35
Future Vol, veh/h	36	50	8	5 1	65 0	4	2	4	3	2	3	35 1
Conflicting Peds, #/hr Sign Control			•	Free								
RT Channelized	Free	Free	Free None	riee -	Free	Free None	Stop	Stop	Stop None	Stop	Stop	Stop None
Storage Length	-	-	None -	-	-	None	-	-	None -	-		None
Veh in Median Storage	- e.# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-, π	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
IVIVIIIL I IOW	30	30	U	J	03	7		7	J		J	33
	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, %	150/	-	-	1544	-	-	/.00	(//	1011	707	///	001
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							Α			Α		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SRI n1			
Capacity (veh/h)	rc I	759		LDT		1544	-	- 1001	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		9.6 A	7.4 A	A	-	7.5 A	A	-	A			
HCM 95th %tile Q(veh))	0	0.1	- A	-	0	- A	-	0.1			
HOW FOUT TOUTE Q(VEH)		U	U. I	-	-	U		-	U. I			

Intersection Delay, s/veh Intersection LOS	9.3		
Intersection LOS	Α		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	А			Α			А			А		

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	А	Α	Α	Α	
HCM 95th-tile Q	0.7	0.3	0.5	1.6	

Intersection					
Intersection Delay, s/v	eh18.3				
Intersection LOS	С				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach R	ighNB			SB			WB			EB			
Conflicting Lanes Right	1			1			1			1			
HCM Control Delay	12			11			12.5			24.9			
HCM LOS	В			В			В			С			

Lane	NBLn1	EBLn1\	VBLn1	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	В	В	В	С
HCM 95th-tile Q	1.9	1.2	0.9	7.8

latan atta												
Intersection	F 4											
Int Delay, s/veh	5.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	2,# -	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 I	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	11	0	0	86	0	0	66	66	49	69	103	11
Stage 1	- 11	-	-	-	-	-	53	53	47	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	- 1.12	_	_	- 1.12	_	_	6.12	5.52	- 0.22	6.12	5.52	- 0.22
Critical Hdwy Stg 2	_	_	_	_	_	_	6.12	5.52	_	6.12	5.52	_
Follow-up Hdwy	2.218	-	-	2.218	_	_	3.518		3.318		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, %		-	_		-	-					3_3	
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	-
J.												
Annraach	ED			WD			ND			CD		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.6			9.5			0		
HCM LOS							Α			Α		
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		925	1608	-	-	1509	-	-				
HCM Lane V/C Ratio			0.001	-	-	0.001	_	_	-			
HCM Control Delay (s)		9.5	7.2	0	-	7.4	0	-	0			
HCM Lane LOS		A	Α	A	-	A	A	-	A			
HCM 95th %tile Q(veh))	0.5	0	-	-	0	-	-	-			
•												

Intersection						
Int Delay, s/veh	0.7					
		EDD	NDL	NDT	CDT	CDD
Movement Lang Configurations	EBL Y	EBR	NBL	NBT €Î	SBT	SBR *
Lane Configurations		20	0			
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		-	-	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 I	Minor2		Major1	Λ	/lajor2	
Conflicting Flow All	1612	636	755	0	- najorz	0
Stage 1	636	-	733	-	_	-
Stage 2	976			_	_	
Critical Hdwy	6.42	6.22	4.12	_	_	_
Critical Hdwy Stg 1	5.42	0.22	4.12	_	-	
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	4/0	000	_	-	
Stage 2	365	-	-	-	-	-
Platoon blocked, %	303	•	•	-	-	•
	110	177	052	-	-	-
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	С					
	J					
NA'		ND	NDT	CDI 4	CDT	CDD
Minor Lane/Major Mvm	nt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	nt	853	-	339	SBT -	SBR -
Capacity (veh/h) HCM Lane V/C Ratio		853 0.011	-	339 0.186		SBR - -
Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s)		853 0.011 9.3	- - 0	339 0.186 18	-	-
Capacity (veh/h) HCM Lane V/C Ratio		853 0.011	-	339 0.186	-	-

	•	•	<u>†</u>	<u></u>	<u> </u>	Ţ
Movement	WBL	WBR	NBT	NBR	SBL	SBT
	WBL	VVDK	ND ↑ }	NDK	JDL	<u> </u>
Lane Configurations Traffic Volume (vol./b)		12	T₽ 366	42E	0	
Traffic Volume (veh/h)	444 444	12 12	366	425 425	0	856 856
Future Volume (veh/h)	444	14	300	425 12	0	
Number		0		0		6
Initial Q (Qb), veh	1.00		0		1.00	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
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	0.00	2282	0.00	0.00	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	0.00	5.2	0.00	0.0	6.1
Incr Delay (d2), s/veh	1.4	0.0	0.1	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.4
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.0	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	10.1 B	0.0		0.0	0.0	0.0 A
			A 266			
Approach Vol, veh/h	457		366			856
Approach Delay, s/veh	10.1		5.3			6.6
Approach LOS	В		Α			A
Timer	1	2	3	4	5	6
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+l1), s		3.8		8.5		7.1
Green Ext Time (p_c), s		2.3		0.3		4.2
, , , , , , , , , , , , , , , , , , ,		۷.5		0.1		7.2
Intersection Summary						
HCM 2010 Ctrl Delay			7.2			
HCM 2010 LOS			Α			

	•	→	•	•	←	•	•	†	<i>></i>	>	+	√
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4₽	7		414			4	7		र्स	7
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	С	С	В	С		С	D		С	D		С
Approach Vol, veh/h		890			344			370			420	
Approach Delay, s/veh		17.4			22.0			36.2			35.6	
Approach LOS		В			С			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+l1), 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			С									

SBL SBR SBR SBL SBR
Anne 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 nitial Q (Qb), veh 0 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 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 2 Cap, veh/h 445 1211 687 1017 506 849 Arai Flow, veh/h 1774 1863 1863 1533 1774 1583 Grp Volume(v), veh/h 1774 1863 1863 1533 1774 1583 D 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 Lane Grp Cap(c), veh/h 445 1211 687 1017 506 849 Avail Cap(c_a), veh/h 445 1211 687 1017 506 849 Avail Cap(c_a), veh/h 445 1211 687 1017 506 849 Avail Cap(c_a), veh/h 445 1211 687 1017 506 849 Avail Cap(c_a), veh/h 445 1211 687 1017 506 849 Avail Cap(c_a), veh/h 445 1211 687 1017 506 849 Avail Cap(c_a), veh/h 694 1211 687 1017 506 849 Avail Cap(c_a), veh/h 694 1211 687 1017 506 849 Avail Cap(c_a), veh/h 694 1211 687 1017 506 849 Avail Cap(c_a), veh/h 694 1211 687 1017 773 1087
Fraffic 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 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 1 Peak Hour Factor 1.00 1.00 1.00 1.00 1.00 1.00 Percreent Heavy Veh, % 2 2 2 2 2 2 Cap, veh/h 445 1211 687 1017 506 849 Arai Flow, veh/h 1774 1863 1863 1863 1533 1774 1583 Description of the product
Future Volume (veh/h) 411 374 213 552 469 248 Number 5 2 6 16 7 14 nitial Q (Qb), veh 0 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/In 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 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 1863 1533 1774 1583 Grp Volume(v), veh/h 1774 1863 1863 1533 1774 1583 Cas Serve(g_s), s 29.5 11.5 10.6 25.4 33.5 11.2 Prop In Lane 1.00 1.00 1.00 1.00 1.00 Parking Bus, Adj 1.00 1.00 1.00 1.00 Percent Heavy Veh, % 2 2 2 2 2 2 Prop In Lane 1.00 1.00 1.00 1.00 1.00 Percent Heavy Veh, % 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Number 5 2 6 16 7 14 nitial Q (Qb), veh 0 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 Prop In Lane 1.00 1.00 1.00 1.00 Lane Grp Cap(c), veh/h 445 1211 687 1017 506 849 Avail Cap(c_a), veh/h 445 1211 687 1017 506 849 Avail Cap(c_a), veh/h 445 1211 687 1017 506 849 Avail Cap(c_a), veh/h 694 1211 687 1017 506 849 Avail Cap(c_a), veh/h 694 1211 687 1017 773 1087
Ped-Bike Adj(A_pbT) 1.00 Ped-Bike Adj(A_pbT) 1.00 Perking Bus, Adj 1.00
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 Adj Sat Flow, veh/h/ln 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 1 Peak Hour Factor 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 D Serve(g_s), 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 Avail Cap(c_a), veh/h 694 1211 687 1017 773 1087
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 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 Ca Serve(g_s), s 29.5 11.5 10.6 25.4 33.5 11.2 Cycle O Clear(g_c), s 29.5 11.5 10.6 25.4 33.5 11.2 Cycle O Clear(g_c), s 29.5 11.5 10.6 25.4 33.5 11.2 Cycle O Clear(g_c), veh/h 445 1211 687 1017 506 849 Avail Cap(c_a), veh/h 694 1211 687 1017 506 849 Avail Cap(c_a), veh/h 694 1211 687 1017 773 1087
Adj Saf Flow, veh/h/ln 1863
Adj Flow Rate, veh/h Adj No. of Lanes 1 1 1 1 1 1 1 Peak Hour Factor 1.00 1.00 1.00 1.00 1.00 Percent Heavy Veh, % 2 2 2 2 2 2 Cap, veh/h 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 1774 1863 1863 1533 1774 1583 O Serve(g_s), s 2 9.5 11.5 10.6 25.4 33.5 11.2 Cycle Q Clear(g_c), s 2 9.5 11.5 10.6 25.4 33.5 11.2 Prop In Lane 1.00
Adj No. of Lanes 1 1 1 1 1 1 1 1 1 1 1 1 1 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 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 O 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 Lane Grp Cap(c), veh/h 445 1211 687 1017 506 849 Avail Cap(c_a), veh/h 694 1211 687 1017 773 1087
Percent Heavy Veh, % 2 2 2 2 2 2 2 2 2 2 2 2 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 Cycle D 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
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 0 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 Lane Grp Cap(c), veh/h 445 1211 687 1017 506 849 Avail Cap(c_a), veh/h 694 1211 687 1017 773 1087
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 Avail Cap(c_a), veh/h 694 1211 687 1017 773 1087
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
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 I//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
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
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
Prop In Lane 1.00 1.00 1.00 ane 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
ane Grp Cap(c), veh/h 445 1211 687 1017 506 849 1/C Ratio(X) 0.92 0.31 0.31 0.54 0.93 0.29 vail Cap(c_a), veh/h 694 1211 687 1017 773 1087
//C Ratio(X) 0.92 0.31 0.31 0.54 0.93 0.29 vail Cap(c_a), veh/h 694 1211 687 1017 773 1087
vail Cap(c_a), veh/h 694 1211 687 1017 773 1087
ICM Platoon Ratio 1.00 1.00 1.00 1.00 1.00
Jpstream Filter(I) 1.00 1.00 1.00 1.00 1.00 1.00
Jniform Delay (d), s/veh 47.6 10.0 29.3 12.2 45.3 16.6
ncr Delay (d2), s/veh 12.9 0.7 1.2 2.1 11.3 0.1
nitial 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
nGrp Delay(d),s/veh 60.5 10.6 30.5 14.3 56.6 16.8
nGrp 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
imer 1 2 3 4 5 6 7 8
ssigned 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+l1), s 13.5 35.5 31.5 27.4
Sreen Ext Time (p_c), s 1.6 1.7 1.2 0.6
ntersection Summary
HCM 2010 Ctrl Delay 32.6
HCM 2010 LOS C
Notes
FHCM 2010 computational engine requires equal clearance times for the phases crossing the barrier.

Background AM.syn Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4	7		4P		¥	∱ Ъ	
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	C
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	С			С		В		D	D	С	А	А
Approach Vol, veh/h		203			362			932			1006	
Approach Delay, s/veh		32.1			14.4			44.0			10.4	
Approach LOS		С			В			D			В	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	<u> </u>	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+l1), 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			23.2 C									
Notes												
* HCM 2010 computational en	gine requ	uires equa	al clearan	ce times	for the ph	ases cros	ssing the	barrier.				

Background AM.syn Hexagon

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	44	ተተተ	ተተኈ		ሻ	77	
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	С	В	С	С	С	В	
Approach Vol, veh/h		2260	811		1290		
Approach Delay, s/veh		18.0	25.2		18.0		
Approach LOS		В	С		В		
•	1			4		,	
Timer	1	2	3	4	5	6	
Assigned Phs	10.5	2				6	
Phs Duration (G+Y+Rc), s	18.5	25.5				44.0	
Change Period (Y+Rc), s	4.0	4.0				4.0	
Max Green Setting (Gmax), s	18.0	18.0				40.0	
Max Q Clear Time (g_c+l1), s	13.6	12.3				19.0	
Green Ext Time (p_c), s	0.9	2.5				12.8	
Intersection Summary							
HCM 2010 Ctrl Delay			19.4				
HCM 2010 LOS			В				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ň	4	7	ň	4		ħ	† †	7	ň	† †	7
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	В	A	A	F	E	<u>C</u>
Approach Vol, veh/h		667			71			1207			1302	
Approach Delay, s/veh		70.1			74.2			2.0			49.1	
Approach LOS		Е			Е			А			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 (q_c+l1), 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 balanci	ing amor	ng the lan	es for turr	ning move	ement.							

Background AM.syn Hexagon HCM LOS

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Intersection													
Intersection Delay, s/ve	eh34.3												
Intersection LOS	D												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	ሻ	†	7	ሻ	1>			ની	7		4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			2			3			2			
Conflicting Approach R				SB			WB			EB			
Conflicting Lanes Right	t 2			1			2			3			
HCM Control Delay	30.1			45.7			22.4			33.6			
	_			_			_			_			

Lane	NBLn11	NBLn2	EBLn1	EBLn2	EBLn3\	NBLn1\	VBLn2	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	С	С	В	Е	В	С	F	D
HCM 95th-tile Q	2.8	3.1	0.3	5.8	0.6	3.3	9.7	5.2

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		414			€1₽		ሻ	ተተኈ		7	† †	7
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		Е	F	F	F	Е	С	
Approach Vol, veh/h		154			584			1804			1557	
Approach Delay, s/veh		54.6			76.9			224.9			33.3	
Approach LOS		D			Е			F			С	
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 (q_c+l1), 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				
ų = 7·	0.7	17.1		0.0	0.0	13.0		3.0				
Intersection Summary			1047									
HCM 2010 Ctrl Delay			124.7									
HCM 2010 LOS			F									

Lane Configurations		۶	→	•	•	←	•	•	†	<i>></i>	/	+	4
Lane Configurations	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Lane Configurations	ሻ	∱ ∱		77	†	7	ሻ	† †	7	44	† †	7
Number 7 4 14 3 8 8 18 5 2 12 12 1 6 11 Initial O(Db), veh 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		152	320	57	408	283	165	66	1562	465	237	1285	65
Initial O (Ob), weh O O O O O O O O O O O O O O O O O O	Future Volume (veh/h)	152	320	57	408	283	165	66	1562	465	237	1285	65
Ped-Bike Adji(A_pbT)	Number	7	4	14	3	8	18	5	2	12	1	6	16
Parking Bus, Adj Adj Sat Flow, veh/hln 1863 1	Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Adj Saf Flow, vehrhin 1863 1863 1900 1863 1863 1863 1863 1863 1863 1863 1863	Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.99	1.00		1.00
Adj Flow Rate, veh/h 152 320 57 408 283 165 66 1562 465 237 1285 64 Adj No. of Lanes 1 2 0 2 1 1 1 2 2 2 Per Peak Hour Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	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 No of Lanes	Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Peak Hour Factor	Adj Flow Rate, veh/h	152	320	57	408	283	165	66	1562	465	237	1285	65
Percent Heavy Veh, % 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Cap, veh/h Arrive On Green 0.10 0.13 0.13 0.14 0.17 0.17 0.05 0.55 0.55 0.08 0.80 0.58 0.58 0.58	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
Cap, veh/h 174 398 70 465 317 389 83 1946 1074 282 2070 108° 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 1Flow, veh/h 1774 2988 525 3442 1863 1522 1774 3539 1564 3442 3539 1583 1587 New 1949 152 188 189 408 283 165 66 1562 465 237 1285 68 1679 Staf Flow(s), veh/h/h 1774 1770 1743 1721 1863 1522 1774 1770 1564 1721 1770 1583 02 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 Serve(g_s), s 13.5 16.5 16.9 18.6 23.3 18.4 19.0 18.0 18.0 18.0 18.0 18.0 18.0 18.0 18	Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Sal 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 66 1774 1770 1783 1781 1781 1782 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 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 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 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 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 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 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 Cycle Q Clear(g.c), selv/h 174 236 232 2465 317 389 83 1946 1074 282 2070 108 VIC Ratio(X) 0.87 0.88 0.89 0.42 0.79 0.80 0.43 0.44 0.40 100 1.00 1.00 1.00 1.00 1.00		174	398	70	465	317	389	83	1946	1074	282	2070	1081
Grp Volume(v), veh/h 152 188 189 408 283 165 66 1562 465 237 1285 66 Grp Sat Flow(s), veh/h/ln 1774 1770 1743 1721 1863 1522 1774 1770 1764 1770 1764 1770 1771 1770 1783 1721 1863 1522 1774 1770 1764 1770 1764 1770 1763 1771 1770 1763 1771 1770 1764 1770 1764 1770 1764 1771 1770 1768 1770 1768 1771 1770 1768 1770 1768 1771 1770 1768 1771 1770 1768 1770 1768 1771 1770 1768 1770 1768 1771 1770 1768 1770 1788 1771 1770 1788 1770 1780 1770 1780 1771 1770 1788 1770 1780 1780 1770 1780 1780 1780 1780 1780 1780 1780 1780 1780 1780 1780 1780 1780 1780	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
Grp Sat Flow(s), veh/h/ln	Sat Flow, veh/h	1774	2988	525	3442	1863	1522	1774	3539	1564	3442	3539	1583
Grp Sat Flow(s), veh/h/ln	Grp Volume(v), veh/h	152	188	189	408	283	165	66	1562	465	237	1285	65
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 2.7 Cycle O 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 2.7 Prop In Lane 1.00 0.30 1.00<													1583
Cycle Q Člear(g_c), s													2.2
Prop In Lane													2.2
Lane Grp Cap(c), veh/h 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 0.70 0.80 0.82 0.88 0.89 0.42 0.79 0.80 0.43 0.84 0.62 0.70 0.80 0.82 0.80 0.82 0.88 0.89 0.42 0.79 0.80 0.43 0.84 0.62 0.70 0.80 0.81 0.84 0.62 0.70 0.80 0.82 0.88 0.89 0.42 0.79 0.80 0.43 0.84 0.62 0.70 0.80 0.81 0.81 0.82 0.88 0.89 0.42 0.79 0.80 0.43 0.84 0.62 0.70 0.80 0.81 0.81 0.82 0.88 0.89 0.42 0.79 0.80 0.43 0.84 0.62 0.70 0.80 0.81 0.81 0.82 0.88 0.89 0.42 0.79 0.80 0.43 0.84 0.62 0.70 0.80 0.81 0.81 0.84 0.62 0.70 0.80 0.81 0.81 0.84 0.62 0.70 0.80 0.81 0.81 0.84 0.62 0.70 0.80 0.83 0.84 0.62 0.70 0.80 0.81 0.84 0.62 0.70 0.80 0.81 0.84 0.62 0.70 0.80 0.83 0.84 0.62 0.70 0.80 0.83 0.84 0.62 0.70 0.80 0.81 0.84 0.62 0.70 0.80 0.80 0.83 0.84 0.62 0.70 0.80 0.80 0.83 0.84 0.62 0.70 0.80 0.80 0.83 0.84 0.62 0.70 0.80 0.80 0.83 0.84 0.62 0.70 0.80 0.80 0.83 0.84 0.62 0.70 0.80 0.80 0.80 0.83 0.84 0.62 0.70 0.80 0.80 0.83 0.84 0.62 0.70 0.80 0.80 0.80 0.83 0.84 0.62 0.70 0.80 0.80 0.83 0.84 0.62 0.70 0.80 0.80 0.80 0.80 0.83 0.84 0.62 0.70 0.80 0.10 0.100 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	,0_ ,												1.00
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 0.00 Avail Cap(c_a), veh/h 233 287 283 624 396 453 144 1946 1074 344 2070 108* HCM Platoon Ratio 1.00 <			236			317			1946			2070	1081
Avail Cap(c_a), veh/h 233 287 283 624 396 453 144 1946 1074 344 2070 1087 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													0.06
HCM Platoon Ratio 1.00 0.0 0.													1081
Upstream Filter(I)													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 lncr 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 0.7 lnitial Q Delay(d3), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.													1.00
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 0.7 Initial Q Delay(d3), s/veh 0.0 0.					67.9		50.2		29.0			21.7	8.4
Initial Q Delay(d3),s/veh 0.0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.7</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.1</td>							0.7						0.1
%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 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 Max Green Sett				0.0	0.0		0.0					0.0	0.0
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 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, l), s 0.2													1.0
LnGrp LOS F E F E F E F D F C B F C Approach Approach Vol, veh/h 529 856 2093 1587 Approach Delay, s/veh 84.4 75.0 30.0 32.0 32.0 Approach LOS F E C C C Timer 1 2 3 4 5 6 7 8 Assigned Phs 1 2 3 4 5 6 7 8 Phs Duration (G+Y+Rc), s 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 4.0 4.0 4.0 A.0 A.0 A.0 A.0 4.0 4.0 4.0 4.0 A.0 A.0<	` '		79.2	81.5		83.8		90.8	32.6	12.6	86.8	23.1	8.5
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 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 LOS D												С	А
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 <td></td> <td></td> <td>529</td> <td></td> <td></td> <td>856</td> <td></td> <td></td> <td>2093</td> <td></td> <td></td> <td>1587</td> <td></td>			529			856			2093			1587	
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	• •												
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+l1), 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			_										
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		1	2	3	Δ		6	7					
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													
Change Period (Y+Rc), s 4.0 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+l1), 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	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													
Max Q Clear Time (g_c+l1), 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													
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													
HCM 2010 Ctrl Delay 43.9 HCM 2010 LOS D Notes													
HCM 2010 Ctrl Delay 43.9 HCM 2010 LOS D Notes	Intersection Summary												
HCM 2010 LOS D Notes				43.9									
	Notes												
		t turn ty	oe.										

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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
	WBL TT	NDK 77	<u>₩</u>	NDK	SDL	<u>361</u>	
Lane Configurations	711	737	2096	0	0	1051	
Traffic Volume (veh/h)		737	2096	0	0	1051	
Future Volume (veh/h)	711				0		
Number	3	18 0	2	12 0	1	6	
Initial Q (Qb), veh	1.00		0		1.00	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
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 C	3.0	3.0	В	
Approach Vol, veh/h	1448	<u> </u>	2096			1051	
Approach Delay, s/veh	32.0		27.6			10.1	
11 J:	32.0 C		27.0 C			10.1	
Approach LOS	C		C			D	
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				
110111 2010 200			0				

	•	~	•	†	1	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Movement Lang Configurations	EBL TT	EBR	INDL	↑ ↑	281	SDK
Lane Configurations Traffic Values (value)			0			^
Traffic Volume (veh/h)	1299	451 451	0	1173	1553	0
Future Volume (veh/h)	1299	451	0	1173	1553	0
Number (Ob) and	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	4.00	4.00	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	20.0	2.0	0.00
				1757	1757	
Lane Grp Cap(c), veh/h	1380	635	0	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	С		В	А	
Approach Vol, veh/h	1750			1173	1553	
Approach Delay, s/veh	32.1			17.2	5.7	
Approach LOS	C			В	A	
	0			Ь		
Timer	1	2	3	4	5	6
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+l1), 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			В			
HOW ZUTU LOS			D			

Cap

Service Time

HCM Lane V/C Ratio

HCM Control Delay

HCM Lane LOS

HCM 95th-tile Q

555

14.2

В

2.1

4.543 4.588

526

12.9

В

1.4

0.42 0.331 0.333 0.476

546

12.6

В

1.5

536

15.5

С

2.6

4.34 4.467 4.217 4.611

555

13.2

В

1.8

0.38 0.337

546

12.9

В

1.5

Intersection													
Intersection Delay, s/ve	h13.7												
Intersection LOS	В												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4TÞ			4Th			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			2			2			
Conflicting Approach R	igh t NB			SB			WB			EB			
Conflicting Lanes Right	1			1			2			2			
HCM Control Delay	12.7			14.5			14.2			12.9			
HCM LOS	В			В			В			В			
Lane	N	IBLn1 I	EBLn1	EBLn2V	VBLn1\	VBLn2	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		0.479		0.335						
Departure Headway (H	d)	6.501	6.848	6.599	6.767		6.564						
Convergence, Y/N		Yes	Yes	Yes	Yes	Yes	Yes						

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		414			414			4			4	
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 N	/lajor1		N	/lajor2		ľ	Minor1		N	/linor2		
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							С			E		
Minor Lane/Major Mvm	t ſ	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	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		20.7 C	Α	Α	_	Α.	Α	_	E			
HCM 95th %tile Q(veh)		0.6	0.2	-	_	0	-	_	4.6			
1.5W 75W 75W 76W Q(VCH)		0.0	0.2			U			1.0			

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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	Moior1			Majora			line-1			Minora		
	Major1			Major2			Minor1	0.47		Minor2	050	101
Conflicting Flow All	130	0	0	103	0	0	346	347	92	382	359	131
Stage 1	-	-	-	-	-	-	91	91	-	256	256	-
Stage 2	- 4.10	-	-	- 4.40	-	-	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				2.0			7.5 A			В		
TOW LOO							Α.			U		
Minor Long/Mairy M		UDI1	EDI	EDT	EDD	WDI	MDT	MDD	CDI1			
Minor Lane/Major Mvm	it f	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR				
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	-				
HCM Lane LOS		Α	Α	-	-	Α	Α	-	В			
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		4			4			4			4	
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	e,# -	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 N	Major1		ı	Major2		1	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, %	1.100	-	-	4511	-	-	E46	F.10	000	F / /	F	0/4
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							В			В		
Minor Lane/Major Mvm	nt ſ	VBLn1	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		В	Α	А	-	Α	Α	-	В			
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		4			4			4			4	
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 N	Major1		1	Major2		1	Minor1		1	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							В			В		
Minor Lane/Major Mvm	ıt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SRI n1			
Capacity (veh/h)	1	735	1419	LDI	LDIX -	1518	-	VVDIX	649			
HCM Lane V/C Ratio		0.038		-		0.037	-		0.025			
HCM Control Delay (s)		10.1	7.6	0	-	7.5	0	-	10.7			
HCM Lane LOS		10.1 B	7.6 A	A	-	7.5 A	A	-	10.7 B			
HCM 95th %tile Q(veh)		0.1	0	- -	_	0.1	- A	-	0.1			
HOW FOUT FOUTE CELVETT)		0.1	- 0			0.1			0.1			

Intersection						
Int Delay, s/veh	3.8					
		EDD	MA	MOT	ND	NDD
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	f)			र्स	Ą	
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
		_		_		
	lajor1		Major2		Vinor1	
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-1 Maneuver	-		1401	-	752	747
	-	-	-	-	917	-
Stage 1	-	-	-	-		
Stage 2	-	-	-	-	887	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.4		9.3	
HCM LOS	U		2.1		Α	
TIOWI LOG						
Minor Lane/Major Mvmt	1	VBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		942	-	-	1481	-
HCM Lane V/C Ratio		0.106	-		0.022	-
HCM Control Delay (s)		9.3	-	-		0
HCM Lane LOS		Α	-	-	A	A
HCM 95th %tile Q(veh)		0.4	-	-	0.1	-
2(1011)						

Intersection												
Intersection Int Delay, s/veh	4.1											
										0.5:		0.0.5
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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 I	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		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	-
2.a.go 2							.,_				3.0	
Approach	EB			WB			NB			SB		
HCM Control Delay, s	4			0.1			10.8			9.7		
HCM LOS	4			U. I			10.6 B			9.7 A		
TIOWI LOS							ט			A		
Minor Lang/Major Mum	\t	\IDI 51	EDI	EDT	EDD	WDI	WDT	WBR	CDI 51			
Minor Lane/Major Mvm	it I	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR				
Capacity (veh/h)		633	1460	-	-	1525	-	-	847			
HCM Cantral Dalay (a)		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		В	Α	Α	-	Α	Α	-	Α			
HCM 95th %tile Q(veh	`	0.1	0.2	_	_	0	_	_	0.3			

Intersection		
Intersection Delay, s/veh	8.8	
Intersection LOS	Α	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		₩			4			₩			4	
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	Α			Α			Α			Α		

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	А	Α	Α	А	
HCM 95th-tile Q	0.6	0.3	0.4	1.3	

Intersection Delay, s/veh18.8 Intersection LOS C	Intersection						
Intersection LOS C	Intersection Delay, s/v	eh18.8					
	Intersection LOS	С					

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach R	ightNB			SB			WB			EB			
Conflicting Lanes Right	1			1			1			1			
HCM Control Delay	12.8			15.1			15.7			25			
HCM LOS	В			С			С			С			

Lane	NBLn1	EBLn1\	NBLn1	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	С	В	С	С
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		4			4			4			4	
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	e,# -	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 I	Major1		I	Major2		<u> </u>	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, %	4500	-	-	45.5	-	-	0.5.	0.15	4000	0.55		40.11
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							Α			Α		
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR :	SBLn1			
Capacity (veh/h)		905	1599	-		1517	-	-	847			
HCM Lane V/C Ratio			0.001	-		0.003	-	_	0.006			
HCM Control Delay (s)		9.4	7.3	0	-	7.4	0	-	9.3			
HCM Lane LOS		Α	A	A	-	Α	A	-	A			
HCM 95th %tile Q(veh))	0.3	0	-	-	0	-	-	0			

Intersection						
Int Delay, s/veh	0.7					
		EDD	NDI	NDT	CDT	CDD
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥	0.0	0.1	4	†	7
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	e, # 2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mymt Flow	40	20	21	1016	766	50
IVIVIIIL I IOW	40	20	Z 1	1010	700	50
Major/Minor	Minor2		Major1	N	/lajor2	
Conflicting Flow All	1827	769	819	0	-	0
Stage 1	769	-	-	-	_	-
Stage 2	1058	_	_	_	_	_
Critical Hdwy	6.42	6.22	4.12	-	-	-
			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	-				
Staye 2	333	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	20.4		0.2		0	
HCM LOS	20.4 C		0.2		- 0	
HOW LOS	U					
Minor Lane/Major Mvm	nt	NBL	NBT I	EBLn1	SBT	SBR
Capacity (veh/h)		808				
HCM Lane V/C Ratio		0.026		0.204		_
HCM Control Delay (s)		9.6	0	20.4	_	
J ,						
HCM Lane LOS	`	A	Α	С	-	-
HCM 95th %tile Q(veh)	0.1	-	0.8	-	-

	•	•	†	~	<u> </u>	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		†		UDL	†
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	1.00	1.00	0	2
•	358	28	1431	0	0	1431
Cap, veh/h	0.22	0.22	0.40	0.00	0.00	0.40
Arrive On Green						
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	Α	0.0	A	0.0	0.0	A.S
Approach Vol, veh/h	308		372			616
Approach Delay, s/veh	8.8		4.1			4.5
Approach LOS	Α		А			А
Timer	1	2	3	4	5	6
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 (q_c+I1), s		3.4		5.3		4.5
Green Ext Time (p_c), s		2.5		0.1		3.6
" - '				J		0.0
Intersection Summary						
HCM 2010 Ctrl Delay			5.4			
HCM 2010 LOS			Α			

	* *
Movement EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL S	BT SBR
Lane Configurations 4† † 41 disconsistent of the di	4 7
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
Ped-Bike Adj(A_pbT) 0.99 0.91 0.99 0.91 1.00 0.96 1.00	0.97
	.00 1.00
	363 1863
,	317 76
Adj No. of Lanes 0 2 1 0 2 0 0 1 1 0	1 1
	.00 1.00
Percent Heavy Veh, % 2 2 2 2 2 2 2 2 2	2 2
	388
	.25 0.25
Sat Flow, veh/h 268 2646 1443 36 2776 541 929 887 1527 326 1	520 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 1.0	.00 1.00
Upstream Filter(I) 1.00 1.00 1.00 1.00 0.00 1.00 0.00 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
%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	С
Approach Vol, veh/h 692 517 355	461
Approach Delay, s/veh 16.7 23.0 37.8	5.8
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+l1), 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				•	*	4	
no vonnone	EBL	EBT	WBT	WBR	SBL	SBR	
ane Configurations	ሻ	†	†	7	ነ	7	
Fraffic 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	
nitial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	Ü	0	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	
2 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	4050	7.40	1.00	1.00	1.00	
_ane Grp Cap(c), veh/h	431	1258	748	1028	461	797	
//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	
Jpstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Jniform Delay (d), s/veh	48.2	8.2	29.5	12.8	46.7	20.8	
ncr Delay (d2), s/veh	17.9	0.5	2.6	2.9	15.5	0.3	
nitial 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	
_nGrp Delay(d),s/veh	66.1	8.7	32.1	15.7	62.2	21.1	
_nGrp LOS	E	Α	С	В	E	С	
Approach Vol, veh/h		713	1033		783		
Approach Delay, s/veh		41.3	21.9		43.3		
Approach LOS		D	С		D		
imer	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+l1), s		10.4		32.1	31.1	33.7	
Green Ext Time (p_c), s		1.3		1.7	0.5	2.2	
ч — 7		1.3		1.7	0.5	۷.۷	
ntersection Summary			24.0				
HCM 2010 Ctrl Delay			34.0				
HCM 2010 LOS			С				
Votes							
HCM 2010 computational en	aine real	ires equa	al clearan	ce times t	or the ph	ases cros	ssing the harrier

Background PM.syn Hexagon

	•	→	•	•	←	•	•	†	~	>	↓	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4	7		ፋቤ		ň	↑ ↑	
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	C
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	C
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(q_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	Е			Е		В	D		Е	С	Α	А
Approach Vol, veh/h		78			283			1006			954	
Approach Delay, s/veh		64.3			24.9			56.6			6.1	
Approach LOS		E			С			Е			Α	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	<u> </u>	2	<u> </u>	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+l1), s		9.4		14.9	8.4	39.4		7.3				
Green Ext Time (p_c), s		6.3		0.3	0.4	7.5		0.8				
Intersection Summary												
HCM 2010 Ctrl Delay			32.2									
HCM 2010 LOS			32.2 C									
Notes												
* HCM 2010 computational en	gine req	uires equa	al clearan	ce times	for the ph	ases cros	ssing the	barrier.				

Background PM.syn Hexagon

	<u> </u>		—	•	_		
Marramant		- >	MOT			CDD	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	١ ٢٢	↑ ↑↑	^^	247	270	77	
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	7.0	17.0	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	
1 11							
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	С	А	С	С	С	В	
Approach Vol, veh/h		1364	1694		827		
Approach Delay, s/veh		15.7	22.8		21.1		
Approach LOS		В	С		С		
Timer	1	2	3	4	5	6	
Assigned Phs	1	2				6	
Phs Duration (G+Y+Rc), s	17.4	32.6				50.0	
Change Period (Y+Rc), s	4.0	4.0				4.0	
Max Green Setting (Gmax), s	16.0	26.0				46.0	
Max Q Clear Time (g_c+l1), s	12.6	21.7				6.0	
Green Ext Time (p_c), s	0.8	3.5				6.4	
4 – <i>7</i>	0.0	ა.ა				0.4	
Intersection Summary							
HCM 2010 Ctrl Delay			19.9				
HCM 2010 LOS			В				

	۶	→	*	•	←	•	1	†	~	/	+	- ✓
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ň	4	7	ሻ	f)		Ŋ	^	7	Ŋ	^	7
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	C
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(q_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	0.0	1.00	1.00	0.0	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	0.0	D	D	0.0	D	F	В	A	E	В	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			57.0 E			В	
	1		2			,	-				D	
Timer Assigned Phs	1	2	3	4	<u> </u>	6	7	8				
	6.1			12.4		6 54.1		8 21 E				
Phs Duration (G+Y+Rc), s		59.0		13.4 * 4.2	11.0			21.5				
Change Period (Y+Rc), s	4.0	4.6			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+l1), 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 balanc	ing amor	ng the lan	es for turi	ning move	ement.							

Intersection

Lane Flow Rate

Geometry Grp

Degree of Util (X)

Convergence, Y/N

HCM Lane V/C Ratio

HCM Control Delay

HCM Lane LOS

HCM 95th-tile Q

Service Time

Cap

Departure Headway (Hd)

234

Yes

370

28.2

D

4.2

0.632 0.541

8

220

0.636 0.541 0.123

Yes

407

21.6

C

3.1

8

45

Yes

366

13.9

В

0.4

8

9.777 8.857 9.828 9.309 8.581 10.103

379

Yes

390

71.9

11.4

7.515 6.595 7.564 7.044 6.316 7.843 7.259 8.157

0.123 0.972 0.205 0.507

8

86

8

Yes

419

13.5

В

8.0

182

0.98 0.205 0.511 0.703 0.549

Yes

359

23

C

2.8

8

266

Yes

380

32

D

5.2

8

9.52 10.397

0.7 0.546

IIICISCUIOII													
Intersection Delay, s/ve	h36.1												
Intersection LOS	Е												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	ሻ	†	7	ሻ	ĵ»			4	7		4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			2			3			2			
Conflicting Approach Ri	igh t 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			С			D			
Lane	N	IBLn11	NBLn2 E	EBLn1 I	EBLn2	EBLn3V	VBLn1V	VBLn2 S	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				

190

Yes

348

25.2

D

3.1

8

	•	→	•	•	←	•	•	†	<i>></i>	<u> </u>	+	- ✓
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4T)			€Î∌		ሻ	ተተኈ		ň	† †	7
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(q_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	0.7	0.00	0.79	0.0	0.82	1.00	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	0.0	F	0.0	F	F	F	F	F	C	0.0
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	J				1					
9				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+l1), 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			05.4									
HCM 2010 Ctrl Delay			95.1									
HCM 2010 LOS			F									

	•	→	•	•	-	•	•	†	~	/	+	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	∱ ∱		44	†	7	Ŋ	^	7	44	† †	7
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	Е	Е	E	E	D	С	E	С	Α	Е	С	Α
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	
••	1		2	1		<i>L</i>	7					
Timer Assigned Phs	1	<u>2</u> 2	3	4	<u>5</u> 5	<u>6</u> 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		30.0		11.0	67.0	17.0	34.0				
		61.0		21.0								
Max Q Clear Time (g_c+l1), 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			05.0									
HCM 2010 Ctrl Delay			35.0									
HCM 2010 LOS			D									
Notes												
User approved changes to righ	nt turn typ	oe.										

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Movement	₩BL	WBR	NBT	NBR	SBL	▼ SBT	
Lane Configurations	WBL ሻሻ	אטיע 🔭	<u>₩</u>	NDIX	JDL	<u> </u>	
Traffic Volume (veh/h)	508	294	2123	0	0	987	
Future Volume (veh/h)	508	294	2123	0	0	987	
Number	300	18	2123	12	1	6	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	U	1.00	1.00	U	
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	294	2123	0	0	2	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	
	2	2	1.00	0	0	2	
Percent Heavy Veh, %	676	548	2477	0	0	2477	
Cap, veh/h Arrive On Green	0.20	0.20	0.70	0.00	0.00	0.70	
	3442	2787	3725		0.00	3725	
Sat Flow, veh/h				0			
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	0.477	0.00	0.00	0.477	
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	8.0	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	С	С	В			Α	
Approach Vol, veh/h	802		2123			987	
Approach Delay, s/veh	31.2		11.2			5.5	
Approach LOS	С		В			А	
Timer	1	2	3	4	5	6	7
Assigned Phs	<u>'</u>	2			<u> </u>	6	,
Phs Duration (G+Y+Rc), s		60.1				60.1	19.
Change Period (Y+Rc), s		4.1				4.1	4.:
Max Green Setting (Gmax), s		46.7				46.7	25.0
Max Q Clear Time (g_c+l1), s		38.0				11.3	13.
		38.0 7.7				8.7	
Green Ext Time (p_c), s		1.1				0.1	2.0
Intersection Summary			12.0				
HCM 2010 Ctrl Delay			13.8				
HCM 2010 LOS			В				

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	•	*	1	†	¥	∢
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	1/1/	7		† †	^	
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	0.00	3725	3725	0.00
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	1/00	1/00	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	С	В		В	Α	
Approach Vol, veh/h	1774			1077	970	
Approach Delay, s/veh	25.5			18.8	3.2	
Approach LOS	С			В	Α	
	1	2	2			,
Timer		2	3	4	5	6
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			В			
I TOTAL ED TO LOG			D			

Intersection				
Intersection Delay, s/v	reh14.2			
Intersection LOS	В			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		414			414			4			4		
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 L	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			2			2			
Conflicting Approach R	igh N B			SB			WB			EB			
Conflicting Lanes Righ	t 1			1			2			2			
HCM Control Delay	15.8			12.8			12.9			13.3			
HCM LOS	C			В			В			В			

Lane	NBLn1	EBLn1	EBLn2V	VBLn1V	VBLn2	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	В	С	С	В	В	В	
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		414			4Th			4			4	
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 V	lajor1		N	/lajor2		I	Minor1		I	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 S	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	Α.	Α	_	Α	Α	_	57.7			
HCM 95th %tile Q(veh)		0.3	0.3	-	_	0.1	-	_	4.5			
1101V1 70111 701110 Q(VCII)		0.0	0.0			0.1			1.0			

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	2,# -	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 I	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	92	0	0	82	0	0	184	187	78	194	191	92
Stage 1	92	-	-	02	-	-	79	79	78	194	191	92
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	4.12	-		4.12	-	-	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 2	-			_	-		6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	_	_	2.218	_	-	3.518		3.318	3.518	4.018	
Pot Cap-1 Maneuver	1503	_	_	1515	_	_	777	708	983	765	704	965
Stage 1	- 1000	_	_	-	_	_	930	829	703	898	807	703
Stage 2	_	_	_	_	_	-	901	806	_	921	825	-
Platoon blocked, %		_	_		_	_	701	000		/ _ / _ 1	020	
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	_
							3,1	.,,		, , ,	320	
				WD			F LES			0.5		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.6			9.4			9.7		
HCM LOS							A			Α		
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		850	1498	-	-	1514	-	-	774			
HCM Lane V/C Ratio		0.035		-	-	0.005	_	_	0.008			
HCM Control Delay (s)		9.4	7.4	0	-	7.4	0	-	9.7			
HCM Lane LOS		Α	Α	A	-	Α	A	-	Α			
HCM 95th %tile Q(veh))	0.1	0	-	-	0	-	-	0			

latana a stiav												
Intersection	4.7											
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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 I	Major1		1	Major2		- 1	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		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	ı			0.7			7.5 A			Α		
TOW LOS							Α			Α.		
N. 41		IDI 4	ED!	EDT	EDD	14/51	MOT	MADE	ODL 4			
Minor Lane/Major Mvm	nt N	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR:				
Capacity (veh/h)		840	1534	-	-	1560	-	-	780			
HCM Lane V/C Ratio			0.005	-	-	0.006	-	-	0.055			
HCM Control Delay (s)		9.5	7.4	0	-	7.3	0	-	9.9			
HCM Lane LOS		Α	Α	Α	-	Α	Α	-	Α			
HCM 95th %tile Q(veh))	0.2	0	-	-	0	-	-	0.2			

Intersection												
Int Delay, s/veh	3.1											
		EDT	EDD	MIDI	MOT	WDD	NDI	NDT	NDD	CDI	CDT	CDD
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	4	0	10	4	0	-	4	10	4	4	-
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 RT Channelized	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	- 4	0	-	-	0	-	-	-	-	-	-	-
Veh in Median Storage Grade, %	2,# -	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
Mymt Flow	1	43	2	13	52	2	7	11	13	1	3	5
IVIVIIIL I IOW		40		13	JZ		1	- 11	13	- 1	J	J
	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, %	1540	-	-	1542	-	-	020	754	1001	002	757	1010
Mov Cap 2 Maneuver	1549		-	1563	-	-	830 830	756 756	1021	802 802	756 756	1010
Mov Cap-2 Maneuver	-	-	-	-	-	-	967	856	-	927	820	-
Stage 1	-	-	-	-	-	-	907	820	-	927	855	-
Stage 2	-	-	-	-	-	-	707	020	-	724	000	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			1.4			9.3			9.1		
HCM LOS							Α			Α		
Minor Lane/Major Mvm	nt N	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		Α.	Α.	A	_	Α.	A	-	A			
HCM 95th %tile Q(veh))	0.1	0	-	-	0	-	-	0			
2000												

-						
Intersection						
Int Delay, s/veh	3.3					
		EDD	\\/DI	WDT	NIDI	NDD
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1 2		40	4	¥	0.7
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
	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
WWW.CT IOW	10	J	.0	12	U	00
	ajor1	1	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	_	_	1002	_	976	1023
Stage 2	_	_	-	_	944	_
		-	-		944	-
Platoon blocked, %	-	-	1550	-	057	1000
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	U		2.2		ο. /	
HOW LOS					А	
Minor Lane/Major Mvmt	N	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		Α	_	_	7.5 A	A
HCM 95th %tile Q(veh)		0.1			0	-
HOW FOUT MITE Q(VEH)		U. I	-	-	U	-

Intersection												
Int Delay, s/veh	3.5											
		EDT	EDD	MIDI	MOT	WDD	NDI	NDT	NDD	CDI	CDT	CDD
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٥٢	4	0	_	4		2	4	2	2	4	٥٢
Traffic Vol, veh/h	35	47	8	5	62	4	2	4	3	2	3	35
Future Vol, veh/h	35 2	47	8	5 1	62	4	2	4	3	2	3	35
Conflicting Peds, #/hr Sign Control		0		Free	0			0	0 Ctop			1 Cton
RT Channelized	Free	Free	Free None	riee -	Free	Free None	Stop	Stop	Stop None	Stop	Stop	Stop None
Storage Length	-	_	None	-	_	None	-	_	NONE -	_	-	NULLE
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 I	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	68	0	0	<u>viajui 2</u> 56	0	0	216	200	52	201	202	67
Stage 1	00	U	U	50	-	U	122	122	52	76	76	- 07
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	7.12		_	7.12	_	_	6.12	5.52	- 0.22	6.12	5.52	0.22
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							Α			Α		
Minor Lane/Major Mvm	nt N	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR :	SBLn1			
Capacity (veh/h)		766				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	Α	A	-	A	A	-	Á			
HCM 95th %tile Q(veh))	0	0.1	-	-	0	-	-	0.1			

Intersection		
Intersection Delay, s/veh	9.3	
Intersection LOS	А	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			₩			₩	
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	А			Α			Α			Α		

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	А	Α	Α	А	
HCM 95th-tile Q	0.7	0.3	0.5	1.6	

Number of Lanes

intersection													
Intersection Delay, s/ve	e h 20.1												
Intersection LOS	С												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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	

A	ΓD	WD	ND	CD	
Approach	EB	WB	NB	SB	
Opposing Approach	WB	EB	SB	NB	
Opposing Lanes	1	1	1	1	
Conflicting Approach L	eft SB	NB	EB	WB	
Conflicting Lanes Left	1	1	1	1	
Conflicting Approach R		SB	WB	EB	
Conflicting Lanes Righ	t 1	1	1	1	
HCM Control Delay	12.6	11.8	13.4	28.1	
HCM LOS	В	В	В	D	

Lane	NBLn1	EBLn1\	NBLn1	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	В	В	В	D
HCM 95th-tile Q	2.2	1.3	1.1	8.5

Background+P AM.syn Synchro 10 Report 01/28/2019 Hexagon

Intersection												
Int Delay, s/veh	5.4											
		EDT	EDD	WDI	WDT	WDD	NDI	NDT	NDD	CDI	CDT	CDD
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	^	4	0/	1	4	0	100	4		0	4	0
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	O Cton	O Cton	O Cton	O Cton	0	0
Sign Control RT Channelized	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	_	0	-	-	0	-	-	0	-	-	-	-
Veh in Median Storage,		0	-		0		-	0		-	0	-
Grade, % Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
		2	2	2	2	2	2	2	2	2	2	2
Heavy Vehicles, % Mvmt Flow	2	11	86	1	11	0	130	3	4	0	0	0
IVIVIIIL FIUW	Z		00	I	11	U	130	3	4	U	U	U
Major/Minor N	1ajor1		١	Major2		1	Minor1		1	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	-
	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	J. 1			3.0			Α.			A		
							,,			, ,		
NA: 1 /2 1 1 2		IDI 4	ED!	FRT	ED5	14/51	MOT	14/55	201 4			
Minor Lane/Major Mvmt		VBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	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			
110111 100												
HCM Lane LOS HCM 95th %tile Q(veh)		A 0.5	A 0	A	-	A 0	А	-	А			

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥			4	†	7
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 Storag	e,# 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	Minor		Major1		10ior2	
Major/Minor	Minor2		Major1		/lajor2	-
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		-	-	-	-	-
Stage 1	510	-	-	-	_	-
Stage 2	362	-	_	_	_	_
o tago 2	002					
Approach	EB		NB		SB	
HCM Control Delay, s			0.1		0	
HCM LOS	С					
Minor Lane/Major Mvi	mt	NBL	NRT	EBLn1	SBT	SBR
Capacity (veh/h)	TIL .					JUIN
HCM Lane V/C Ratio		848	-	007	-	-
	.)	0.014		0.206	-	-
HCM Long LOS)	9.3	0	18.4	-	-
HCM Lane LOS	۵)	A	А	С	-	-
HCM 95th %tile Q(vel	I)	0	-	0.8	-	-

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Movement	₩BL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	WDL	WOIL	† ↑	אטונ	JDL	<u>361</u>
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
, ,	1.00	1.00	U	1.00	1.00	U
Ped-Bike Adj(A_pbT)			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(q_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
	0.6		1.7			J.Z
Prop In Lane		0.03	1/70	0.00	0.00	1470
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	В		A		3.0	A
Approach Vol, veh/h	457		377			866
Approach Delay, s/veh	10.2		5.3			6.6
Approach LOS	В		А			А
Timer	1	2	3	4	5	6
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 (q_c+l1), 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			Α.			
. 13W 2010 E03			- 7			

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Movement EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	41	T.	VVDL	413	WDI	NDL	4	T T	JDL	4	7
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	U	0.91	0.99	U	0.91	1.00	U	0.97	1.00	U	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	1700	258	69	149	215	17	65	350	16
Adj No. of Lanes 0	2	1	0	230	0	0	1	17	0	1	10
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
·								1529	415		
Grp Volume(v), veh/h 206	196	490	182	0	162	364	0			0	16
Grp Sat Flow(s), veh/h/ln1674	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	F00	1.00	0.09	0	0.43	0.41	^	1.00	0.16	0	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	1.00	543	773	0	648	861	1.00	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/lr4.1	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	С	В	С		С	D		С	D		С
Approach Vol, veh/h	892			344			381			431	
Approach Delay, s/veh	17.9			22.8			36.8			36.1	
Approach LOS	В			С			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 (q_c+l1), s			19.8		9.3		22.0				
Green Ext Time (p_c), s	3.8		2.3		2.2		2.8				
ų – 7:	5.5						0				
Intersection Summary		2/ 1									
HCM 2010 Ctrl Delay		26.1									
HCM 2010 LOS		С									

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Movement	EBL	EBT	WBT	WBR	SBL	SBR							
Lane Configurations	ሻ	†	†	7	ሻ	7							
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/li	n1774	1863	1863	1533	1774	1583							
Q Serve(q_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/vel	h 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	n 0.0	0.0	0.0	0.0	0.0	0.0							
%ile BackOfQ(50%),vel	h/ 1 1n6.1	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	В	С	В	E	В							
Approach Vol, veh/h		785	768		720								
Approach Delay, s/veh		36.9	18.9		43.0								
Approach LOS		D	В		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),		* 4.2		* 4.2	4.0	* 4.2							
Max Green Setting (Gm		* 85		* 57	51.0	* 30							
Max Q Clear Time (g_c		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			С										
Notes													
* HCM 2010 computation	nal on	nine ro	nuires e	anual ele	aranco	timas f	for the nha	SAS Cro	nssina t	he har	rier		
TIGINI 2010 COMPUTATIO	mai ell	girie 180	Juil C3 C	yuai Ult	arantt	unic2 l	or the pile	202 CI	Josii Iy l	ne bal	IICI.		

Background+P AM.syn Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4	7		414		*	ħβ	
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/lr		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		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/vel		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
%ile BackOfQ(50%),vel		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	С			С		В		D	D	С	Α	Α
Approach Vol, veh/h		207			362			936			1016	
Approach Delay, s/veh		32.0			14.3			44.1			10.6	
Approach LOS		С			В			D			В	
imer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4	5	6		8				
Assigned Firs Phs Duration (G+Y+Rc)	۱ د	56.4		23.6	28.4	28.1		23.6				
Change Period (Y+Rc),		4.6		4.6	4.6	* 4.1		4.6				
Max Green Setting (Gm		43.7		27.1	14.1	* 26		27.1				
Max Q Clear Time (g_c		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				
u — 7		0.0		0.0	0.1	۷.۷						
ntersection Summary HCM 2010 Ctrl Delay			25.3									
HCM 2010 Ctr Delay			25.3 C									
HOW ZUTU LUS			C									
Notes												
* HCM 2010 computation	onal en	gine rec	quires e	qual cle	earance	times f	or the p	hases	crossin	g the ba	arrier.	

Background+P AM.syn Hexagon

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Movement	EBL	EBT	WBT	WBR	SBL	SBR			J
Lane Configurations	ሻሻ	† ††	11	TIDIC	SDE T	77			
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/l		1695	1695	1605	1774	1393			
Q Serve(q_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	17.1	10.2	0.70	1.00	1.00			
Lane Grp Cap(c), veh/h		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/ve		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			
		0.0	0.0	0.0	0.9	0.3			
Initial Q Delay(d3),s/vel			5.0	5.3					
%ile BackOfQ(50%),ve		8.1			11.0	4.9			
LnGrp Delay(d),s/veh	34.6	12.8	24.7	27.7	29.0	10.7			
LnGrp LOS	С	В	C 017	С	C 1200	В			
Approach Vol, veh/h		2265	817		1300				
Approach Delay, s/veh		18.3	25.7		18.1				
Approach LOS		В	С		В				
Timer	1	2	3	4	5	6	7	8	
Assigned Phs	1	2				6		8	
Phs Duration (G+Y+Rc), 188.6	25.4				44.0		30.1	
Change Period (Y+Rc),		4.0				4.0		4.0	
Max Green Setting (Gr		18.0				40.0		32.0	
Max Q Clear Time (q_c		12.5				19.1		22.1	
Green Ext Time (p_c),	•	2.4				12.7		3.9	
	3.,	۷٠١				/		0.,	
Intersection Summary									
HCM 2010 Ctrl Delay			19.6						
HCM 2010 LOS			В						

		→	•	•	←	•	•	†	~	\	Ţ	4	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	ሻ	4	7	*	ĵ.		*	^	7	*	^	7	
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	<u> </u>	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	
	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	
	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/lr		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(q_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		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		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		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	Ε		Е	Ε		Е	В	Α	Α	F	Ε	С	
Approach Vol, veh/h		667			71			1215			1311		
Approach Delay, s/veh		70.1			74.2			2.0			49.4		
Approach LOS		Е			Е			Α			D		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2		4	5	6		8					
Phs Duration (G+Y+Rc)	, s7.9	108.8		13.5	61.9	54.9		29.7					
Change Period (Y+Rc),		4.6		* 4.2	4.6	* 4.6		4.0					
Max Green Setting (Gm		70.2		* 27	21.8	* 56		38.0					
Max Q Clear Time (g_c-		2.0		5.7	5.7	38.1		23.9					
Green Ext Time (p_c), s		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 b	oalanc	ing amo	ng the	lanes fo	or turnir	ng move	ment.						
		- T	J			_							

Background+P AM.syn Hexagon

Convergence, Y/N

HCM Lane V/C Ratio

HCM Control Delay

HCM Lane LOS

HCM 95th-tile Q

Service Time

Cap

Yes

361

23.6

C

3

0.529 0.538

Yes

398

22.1

C

3.1

7.769 6.842 8.104 7.581

Yes

346

14.2

В

0.3

0.098 0.741

Yes

367

36.3

Ε

5.8

Yes

394

13.7

В

0.6

0.173 0.566

Yes

366

24.8

C

3.4

6.85 7.614 7.021 7.814

Yes

390

59.1

9.8

0.918 0.704

Yes

361

34.1

D

5.2

Intersection													
Intersection Delay, s/ve	h34.7												
Intersection LOS	D												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	ሻ	†	7	*	1>			4	7		4		
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	
Annroach	EB			WB			NB			SB			
Approach							SB						
Opposing Approach	WB 2			EB 3			3B			NB 2			
Opposing Lanes				NB			EB			WB			
Conflicting Approach Le Conflicting Lanes Left	1			2			3			WB			
U				SB			WB			EB			
Conflicting Approach Ri Conflicting Lanes Right				3D 1			2			3			
HCM Control Delay	30.2			46.5			22.8			34.1			
HCM LOS	30.2 D			40.5			22.0 C			34.1			
HOW LOS	D						C			D			
Lane	<u> </u>		NBLn2 I										
Vol Left, %		38%		100%	0%	0%		0%	15%				
Vol Thru, %		62%	0%	0%	100%	0%	0%	91%	64%				
Vol Right, %		0%		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		0.098	0.743	0.172	0.567	0.922	0.71				
Departure Headway (Ho	d) 1	0.015	9.089	10.352	9.83	9.099	9.864	9.2711	10.062				

	•	→	•	•	←	•	•	†	~	/		4	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		414			414		ሻ	ተተኈ		ሻ	^	7	
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	
	31	3254		949	794	900	1774	4601	547	1774	3539	1583	
Sat Flow, veh/h			0										
Grp Volume(v), veh/h	79	75	0	285	0	304	57	1150	597	262	1300	0	
Grp Sat Flow(s), veh/h/li		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		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/vel	h 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	o.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%),vel		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		Е	F	F	F	Ε	С		
Approach Vol, veh/h		154			589			1804			1562		
Approach Delay, s/veh		54.5			77.2			226.2			33.8		
Approach LOS		D T.5			F. E.			F			C		
Timer	1	2	3	4	5	6	7	8					
	1		<u> </u>				1						
Assigned Phs	1 40 7	2		4	5	6		8					
Phs Duration (G+Y+Rc)		92.0		56.7	11.7			56.7					
Change Period (Y+Rc),		4.0		4.0	4.0	4.0		4.0					
Max Green Setting (Gm		88.0		61.0		119.0		61.0					
Max Q Clear Time (g_c		55.2		37.2	8.1	44.0		49.7					
Green Ext Time (p_c), s	5 0.7	17.1		0.8	0.0	15.0		3.0					
Intersection Summary													
HCM 2010 Ctrl Delay			125.2										
HCM 2010 LOS			F										

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	ħβ		ሻሻ	†	7	*	^	7	ሻሻ	^	7
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/lr		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		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/vel	h 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
%ile BackOfQ(50%),vel		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	Ε	F	Е	F	D	F	С	В	F	С	Α
Approach Vol, veh/h		531			862			2098			1587	
Approach Delay, s/veh		84.9			75.3			30.1			32.1	
Approach LOS		F			Е			С			С	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc)	1, 1, 1, 1	92.0	25.8	25.3	11.5	97.6	19.7	31.4				
Change Period (Y+Rc),		4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gm		88.0	29.0	26.0	13.0	91.0	21.0	34.0				
Max Q Clear Time (g_c		59.1	20.8	19.0	7.9	40.0	15.5	26.0				
Green Ext Time (p_c), s		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	s to righ	nt turn ty	ype.									

Percent Heavy Veh, % 2 2 2 0 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/ln1721 1393 1770 0 0 1770 O Serve(g_s), s 14.8 20.2 46.8 0.0 0.0 13.6 Cycle O 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 26.8 37.2 27.7 0.0 0.0 0.0 Sile BackOfQ(50%), veh/ln7.3 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 BApproach 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+11), 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		•	•	†	~	<u> </u>				
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Ped-Bike Adj(A_pbT) 1.00 </td <td>Initial Q (Qb), veh</td> <td></td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td></td> <td></td> <td></td> <td></td>	Initial Q (Qb), veh		0	0	0	0				
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Change Period (Y+Rc), s 4.1 4.2 Max Green Setting (Gmax), s 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	Assigned Phs		2				6		8	
Max Green Setting (Gmax), s 46.7 25.0 Max Q Clear Time (g_c+l1), 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	Phs Duration (G+Y+Rc),	S	51.9				51.9		28.1	
Max Green Setting (Gmax), s 46.7 25.0 Max Q Clear Time (g_c+l1), 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	Change Period (Y+Rc), s	5	4.1				4.1		4.2	
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			46.7				46.7		25.0	
Green Ext Time (p_c), s 0.0 9.2 1.7 Intersection Summary HCM 2010 Ctrl Delay 25.1			48.8				15.6			
HCM 2010 Ctrl Delay 25.1	Green Ext Time (p_c), s									
J	Intersection Summary									
J				25.1						
	HCM 2010 LOS			С						

		•	•	†	↓	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	ሻሻ	T T	NUL	†	† †	ODIN
		451	Λ	1174	1562	0
· /	1299		0			0
, , ,	1299	451	0	1174	1562	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
,\ _i ,	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	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
	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
	1380	635	0	1757	1757	0
	0.40	0.40	0.00	0.50	0.99	0.00
				3725		
	3442	1583	0		3725	0
	1299	451	0	1174	1562	0
Grp Sat Flow(s), veh/h/ln		1583	0	1770	1770	0
13 — <i>7</i> :	29.1	19.1	0.0	20.0	2.1	0.0
, , ,	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
. ,	1415	651	0	1757	1757	0
	1.00	1.00	1.00	1.00	2.00	1.00
	1.00	1.00	0.00	1.00	0.79	0.00
Uniform Delay (d), s/veh		20.1	0.00	15.2	0.77	0.00
J \ /.	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
%ile BackOfQ(50%),veh		8.8	0.0	10.1	1.5	0.0
J () .	35.2	23.0	0.0	17.2	5.9	0.0
LnGrp LOS	D	С		В	Α	
	1750			1174	1562	
	32.1			17.2	5.9	
Approach LOS	C			В	Α	
	0					
Timer	1	2	3	4	5	6
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 (Gma		38.9		32.9		38.9
Max Q Clear Time (g_c+		22.0		31.1		4.1
Green Ext Time (p_c), s	,, 5	5.7		1.0		10.9
u — .		5.,		1.0		
Intersection Summary						
HCM 2010 Ctrl Delay			19.1			
HCM 2010 LOS			В			

Intersection				
Intersection Delay, s/ve Intersection LOS	h13.8			
Intersection LOS	В			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		414			414			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			2			2			
Conflicting Approach R	ightNB			SB			WB			EB			
Conflicting Lanes Right	1			1			2			2			
HCM Control Delay	12.8			14.6			14.3			13			
HCM LOS	В			В			В			В			

Lane	NBLn1	EBLn1	EBLn2V	VBLn1V	VBLn2	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	В	В	В	С	В	В	
HCM 95th-tile Q	2.1	1.5	1.5	2.6	1.8	1.5	

Note Note
Movement EBL EBR EBR WBL WBR NBL NBT NBR SBL SBR SBR
Traffic Vol, veh/h
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 Stop
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
Conflicting Peds, #/hr 31 0 16 16 0 31 0 0 25 25 0 0 Sign Control Free Stop None - - None - - None - - None - - 0 - - - 0 - - 0 - - 0 - - 0 - - - 0 - - - 0 - - - 0 <
Sign Control Free Free Free Free Free Free Free Free Free Stop Stop Stop Stop Stop Stop RT Channelized - None - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - 0
RT Channelized - None - None - None - None Storage Length -
Storage Length - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - 0 - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Veh in Median Storage, # 0 - - 0 - 0 100
Grade, % - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 100
Peak Hour Factor 100
Heavy Vehicles, % 2 84 Major/Minor Minor1 Minor1 Minor2 Minor2 Minor1 Minor2 Minor2 Minor2 Minor3 449 449 49 49 49 49 49 49 49 49 449 449 449 449 449 449 449 449 449 449 449 449 449 449 <td< td=""></td<>
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 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 <td< td=""></td<>
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 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54<
Conflicting Flow All 466 0 0 808 0 0 1122 1403 437 986 1373 249 Stage 1 - - - - - 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 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 70 70 70 70 70
Conflicting Flow All 466 0 0 808 0 0 1122 1403 437 986 1373 249 Stage 1 - - - - - 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 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 </td
Conflicting Flow All 466 0 0 808 0 0 1122 1403 437 986 1373 249 Stage 1 - - - - - 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 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 </td
Stage 1 - - - - 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 <td< td=""></td<>
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 -
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 6.54 6.54 6.54
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 -
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 -
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 -
Pot Cap-1 Maneuver 1092 - 813 - - 161 139 567 202 145 751 Stage 1 - - - - - 291 347 - 559 571 - Stage 2 - - - - 782 552 - 496 346 -
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
TION LOO
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

Intersection						
Int Delay, s/veh	0					
		CDT	WDT	WIDD	CDI	CDD
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	•	4	4	•	¥	0
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	e, # -	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
Maiau/Minau	14-11		1-1-2		Alia a - O	
	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	_		_		-	_
Jiago Z						
Approach	EB		WB		SB	
HCM Control Delay, s	0		0		0	
11011100					Α	
HCM LOS						
HCM LOS						
	\t	EDI	EDT	MDT	MPD	CDI n1
Minor Lane/Major Mvm	nt	EBL	EBT	WBT	WBR S	SBLn1
Minor Lane/Major Mvm Capacity (veh/h)	nt	1614	-	-	-	-
Minor Lane/Major Mvm Capacity (veh/h) HCM Lane V/C Ratio		1614 -	-	WBT - -	-	-
Minor Lane/Major Mvm Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s)		1614 - 0	- - -	- -	- -	- - 0
Minor Lane/Major Mvm Capacity (veh/h) HCM Lane V/C Ratio		1614 -	-	-	-	-

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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	143	-	U	110	-	-	103	103	104	269	269	144
Stage 2	-	-	_		-	-	268	269	-	138	115	-
Critical Hdwy	4.12	-	<u>-</u>	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	4.12	-		4.12	-	-	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 2	-			_	-		6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	_	_	2.218	_	-	3.518		3.318	3.518	4.018	
Pot Cap-1 Maneuver	1440	_		1474	_	_	586	558	951	555	550	903
Stage 1	- 17-10	_	_	- 117-	_	_	903	810	751	737	687	703
Stage 2	_	_	_	_	_	-	738	687	_	865	800	-
Platoon blocked, %		_	_		_	_	, 50	007		000	500	
Mov Cap-1 Maneuver	1435	_	_	1473	_	-	560	530	949	494	523	899
Mov Cap-2 Maneuver	-	_	_	- 170	_	_	560	530	-	494	523	-
Stage 1	-	-	-	-	-	-	902	809	-	735	653	-
Stage 2	_	_	_	_	_	_	698	653	_	800	799	-
							3,3	300		300	.,,	
				WD			, LE			0.5		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.4			9.6			12.2		
HCM LOS							Α			В		
Minor Lane/Major Mvm	nt N	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	-				
HCM Lane LOS		A	A	-	-	A	A	-	В			
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.1			
	•											

Intersection												
Int Delay, s/veh	4.8											
		EDT	EDD.	MDI	MOT	14/00	NDI	NDT	NDD	0.01	ODT	000
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	2,# -	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 N	Major1			Major2			Minor1		1	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	- 0.22	6.12	5.52	- 0,22
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	1400	_	_	-	_	_	913	817	-	747	694	- , , ,
Stage 2	_	_	_	_	_	_	715	694	_	901	811	_
Platoon blocked, %		_	_		_	_	710	0,1		701	011	
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	_
Jiago Z							011	000		312	500	
A				1410			, LID			0.0		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			3.2			10.5			11.6		
HCM LOS							В			В		
Minor Lane/Major Mvm	nt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		689	1484		_	1502	_					
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	-				
HCM Lane LOS		В	A	A	_	Α	A	_	В			
HCM 95th %tile Q(veh))	0.1	0	-	-	0.2	-	-	0.4			
		0.1				3.2			- U. 1			

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	2,# -	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		ı	Major2		ı	Minor1			Minor2		
Conflicting Flow All	170	0	0	87	0	0	389	383	85	394	387	171
Stage 1	170	-	-	-	-	-	101	101	-	282	282	- 1/1
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	4.12		_	4.12	-	-	6.12	5.52	0.22	6.12	5.52	0.22
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	1407			1307	-	_	905	811	9/4	725	678	0/3
Stage 2	-	-	-	-	-	-	720	678	-	893	808	-
Platoon blocked, %					-	_	120	070	-	073	000	
Mov Cap-1 Maneuver	1406	-	-	1509	-	-	540	523	972	533	520	872
Mov Cap-1 Maneuver	1400	_	-	1507	-	-	540	523	912	533	520	0/2
Stage 1	-	-	-	-	-	-	899	805	-	719	650	
Ü	•	-	-	•	-	-	678	650	-	867	802	-
Stage 2	-	-	-	-	-	-	0/8	000	-	00/	ØU2	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.7			1.9			10.2			10.8		
HCM LOS							В			В		
Minor Lane/Major Mvm	nt I	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		720	1406	-	-	1509	-		635			
HCM Lane V/C Ratio		0.039		-		0.037	-	-	0.025			
HCM Control Delay (s)		10.2	7.6	0	-	7.5	0	_	10.8			
HCM Lane LOS		В	Α	A	-	Α	A	_	В			
HCM 95th %tile Q(veh))	0.1	0	-	-	0.1	-	-	0.1			

Intersection						
Int Delay, s/veh	3.8					
		EDD	MDL	MOT	NDI	NDD
	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	f)	_		4	¥	
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
_ 3	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
N.A ! /N.A!	.14		4-1-0		1'1	
	ajor1		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	745
Stage 1	_				914	_
Stage 2	_	_			885	-
Slaye 2	-	-	-	-	000	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.3		9.3	
HCM LOS					A	
		IDI. 1	EDT	EDD	14/51	MOT
Minor Lane/Major Mvmt	<u> </u>	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	-	-		0
HCM Lane LOS		Α	-	-	Α	Α
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		4			4			4			4	
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	2,# -	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 N	Major1			Major2		- 1	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	0.7			0.1			В			Α		
										, \		
		IDI 1				14/5:	11/5-	14/55	001 1			
Minor Lane/Major Mvm	nt N	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR:				
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		В	A	Α	-	Α	Α	-	Α			
HCM 95th %tile Q(veh)		0.1	0.2	-	-	0	-	-	0.3			

Intersection		
Intersection Delay, s/veh	8.9	
Intersection LOS	А	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	А			Α			Α			А		

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	А	Α	Α	А	
HCM 95th-tile Q	0.6	0.3	0.4	1.3	

Intersection					
Intersection Delay, s/v	eh19.3				
Intersection Delay, s/ve Intersection LOS	С				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach R	ightNB			SB			WB			EB			
Conflicting Lanes Right	1			1			1			1			
HCM Control Delay	13			15.5			16			25.8			
HCM LOS	В			С			С			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	С	В	С	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		4			4			4			4	
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	2,# -	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 I	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	18	0	0	84	0	0	80	78	50	79	112	18
Stage 1	10	-	-	04	-	-	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	4.12	-		4.12	-	-	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 2				_	-		6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	_	_	2.218	_	-	3.518		3.318		4.018	3.318
Pot Cap-1 Maneuver	1599	_	_	1513	_	_	908	812	1018	910	778	1061
Stage 1	- 10//	_	_	-	_	_	961	852	-	992	874	-
Stage 2	_	_	_	_	_	-	989	874	_	960	824	-
Platoon blocked, %		_	_		_	_	707	017		700	JZ-T	
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	-
							, 02	3, 1		.00	522	
				WD			, LE			0.5		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			1.3			9.4			9.3		
HCM LOS							Α			Α		
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		902	1599	-	-	1512	-	-	844			
HCM Lane V/C Ratio			0.001	-	-	0.003	_	_	0.006			
HCM Control Delay (s)		9.4	7.3	0	-	7.4	0	-	9.3			
HCM Lane LOS		Α	A	A	-	Α	A	-	A			
HCM 95th %tile Q(veh))	0.3	0	-	-	0	-	-	0			

Intersection						
Int Delay, s/veh	0.8					
		EDD	NDL	NDT	CDT	CDD
Movement	EBL Y	EBR	NBL	NBT €	SBT	SBR 7
Lane Configurations		21	22			
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		-	-	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	N	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, %	333			_	_	_
Mov Cap-1 Maneuver	78	400	806			
Mov Cap-1 Maneuver	259	400	000	_	-	
	427	-	-	-	-	-
Stage 1	332	-	-		-	
Stage 2	332	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	20.5		0.2		0	
HCM LOS	С					
Minor Lane/Major Mvn	nt	NBL	NIDT	EBLn1	SBT	SBR
	II				SDI	SDK
Capacity (veh/h)		806	-	= ' '	-	-
		0.027		0.211	-	-
HCM Control Doloy (c)		Λ/				
HCM Control Delay (s))	9.6	0	20.5	-	-
		9.6 A 0.1	0 A	20.5 C	-	-

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Movement	₩BL	WBR	NBT	NBR	SBL	♥ SBT
Lane Configurations	WDL	WDR	ND ↑ }	NDK	JDL	<u>361</u>
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
` '	1.00	1.00	U	1.00	1.00	U
Ped-Bike Adj(A_pbT)			1.00			1.00
Parking Bus, Adj	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(q_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
	0.93	0.07	1.4	0.00	0.00	2.5
Prop In Lane	387		1/2/			1434
Lane Grp Cap(c), veh/h		0	1434	0	0	
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	А		Α			А
Approach Vol, veh/h	308		375			619
Approach Delay, s/veh	8.8		4.1			4.5
Approach LOS	8.8 A		4.1 A			4.5 A
Appluacii LUS	A		A			А
Timer	1	2	3	4	5	6
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
<u> </u>		۷.۵		0.1		5.0
Intersection Summary						
HCM 2010 Ctrl Delay			5.4			
HCM 2010 LOS			Α			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		41∱	7		4î>			4	7		4	7
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	С	С	Α	С		С	D		С	D		С
Approach Vol, veh/h		692			517			358			464	
Approach Delay, s/veh		16.9			23.2			38.0			36.0	
Approach LOS		В			С			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			С									

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	ኘ	<u> </u>	†	7	ነ	7	
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	
2 Serve(g_s), s	29.1	8.4	20.7	31.8	30.2	19.0	
	29.1	8.4	20.7	31.8	30.2	19.0	
Cycle Q Clear(g_c), s	1.00	0.4	20.7	1.00		1.00	
Prop In Lane		1257	747		1.00	798	
Lane Grp Cap(c), veh/h	431	1257	747	1028	462		
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	
Jpstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Jniform Delay (d), s/veh	48.3	8.2	29.6	12.8	46.7	20.7	
ncr Delay (d2), s/veh	17.9	0.5	2.6	2.9	15.6	0.3	
nitial 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	
_nGrp Delay(d),s/veh	66.2	8.7	32.2	15.7	62.3	21.0	
_nGrp LOS	E	A	С	В	E	С	
Approach Vol, veh/h		713	1034		784		
Approach Delay, s/veh		41.4	21.9		43.4		
Approach LOS		D	С		D		
imer	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+l1), s		10.4		32.2	31.1	33.8	
Green Ext Time (p_c), s		1.3		1.7	0.5	2.2	
ntersection Summary							
HCM 2010 Ctrl Delay			34.0				
HCM 2010 Cur Delay			C C				
Notes						ases cros	

	•	→	•	•	+	•	1	†	<i>></i>	/	↓	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			र्स	7		4Te		ሻ	↑ ⊅	
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	C
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	0.0	0.04	0.69	0.0	1.00	0.00	0.0	0.13	1.00	7.5	0.11
Lane Grp Cap(c), veh/h	151	0	0.04	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	0.00	0.00	375	0.00	1055	993	0.00	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	0.00	15.0	43.3	0.00	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	04.Z E	0.0	0.0	57.5 E	0.0	В	D D	0.0	50.7 E	C	3.5 A	3.5 A
Approach Vol, veh/h	<u> </u>	79		<u> </u>	283	D	<u> </u>	1007	<u> </u>		956	
Approach Delay, s/veh		64.2			24.9			56.6			6.1	
Approach LOS		04.Z E			24.9 C			30.0 E			ο. 1	
Approach LOS		E			C			Е			А	
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			С									
Notes												
* HCM 2010 computational en	nine ren	uires equa	al clearan	ce times	for the ph	ases cros	ssing the	harrier				

Background+P PM.syn Hexagon

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	ሻሻ	↑ ↑↑	^	WER	ሻ	77	
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	4.0	17.7	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	02.0 C	Α.2	C C	C	02.0 C	В	
Approach Vol, veh/h		1365	1696	<u> </u>	831	U	
Approach Delay, s/veh		15.7	22.9		21.1		
Approach LOS		15.7 B	22.9 C		Z1.1		
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	8.0	3.4				6.4	1.3
Intersection Summary							
HCM 2010 Ctrl Delay	_		20.0				
HCM 2010 LOS			В				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	र्स	7	ř	(î		¥	^	7	¥	† †	7
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	8.0	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	В	A	<u>E</u>	В	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			В	
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 (q_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 balanci												

Cap

Service Time

HCM Lane V/C Ratio

HCM Control Delay

HCM Lane LOS

HCM 95th-tile Q

369

28.4

D

4.2

407

21.7

C

3.1

365

0.637 0.541 0.123 0.972 0.208

14

В

0.4

390

72.4

11.5

7.522 6.601 7.572 7.052 6.324 7.857 7.273 8.172

418

13.6

В

8.0

357

0.51

23

C

2.8

380

32

D

5.2

346

25.2

D

3.1

0.7 0.549

Intersection													
Intersection Delay, s/ve	h36.3												
Intersection LOS	Ε												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	Ĭ	†	7	Ť	f)			र्स	7		4		
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 Le	ft SB			NB			EB			WB			
Conflicting Lanes Left	1			2			3			2			
Conflicting Approach Ri	ghNB			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	N	IBLn11	VBLn2	EBLn1	EBLn2	EBLn3\	NBLn1V	VBLn2	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 (Ho	d)	9.799	8.878	9.851	9.331		10.101		10.409				
Convergence, Y/N		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				

	•	→	•	•	-	•	•	†	<i>></i>	<u> </u>	+	-✓
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		€Î}•			€Î∌		ħ	ተተኈ		ň	† †	7
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	С	
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+l1), 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									

	•	→	•	•	-	•	•	†	~	/	+	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	∱ ∱		1/1	†	7	ሻ	† †	7	44	† †	7
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	С	E	С	Α	E	С	A
Approach Vol, veh/h		490			1100			1579			1660	
Approach Delay, s/veh		67.2			48.0			21.6			29.9	
Approach LOS		Е			D			С			С	
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+l1), 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 righ	nt turn typ	oe.										

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Movement	₩BL	WBR	NBT	NBR	SBL	SBT	
	WDL TT	WDK 77	<u>₩</u>	NDK	SDL	<u>361</u>	
Lane Configurations	510	294	2123	0	0	987	
Traffic Volume (veh/h)	510	294	2123	0	0	987	
Future Volume (veh/h)					0		
Number	3	18 0	2	12 0	1	6	
Initial Q (Qb), veh	1.00		0		1.00	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
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	1.00	1.00	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	С	С	В			А	
Approach Vol, veh/h	804		2123			987	
Approach Delay, s/veh	31.1		11.2			5.5	
Approach LOS	С		В			A	
• •	1	2		4	F		7
Timer		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+l1), 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			В				

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Mouamant		▼	NDI .		▼	CDD.
Movement Lana Configurations	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	ነካ	402	^	††	^	^
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		10.9	ა.ზ	0.00
•			0.00	1/22	1422	
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	С	В		В	Α	
Approach Vol, veh/h	1774			1077	973	
Approach Delay, s/veh	25.5			18.8	3.2	
Approach LOS	23.3 C			В	3.2 A	
•	C			D	A	
Timer	1	2	3	4	5	6
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
ų – <i>r</i>				J. 1		٥.٤
Intersection Summary						
HCM 2010 Ctrl Delay			17.9			
HCM 2010 LOS			В			

Intersection					
Intersection Delay, s/v	veh14.3				
Intersection LOS	В				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		414			47>			4			4		
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 Lo	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			2			2			
Conflicting Approach R	ighNB			SB			WB			EB			
Conflicting Lanes Right	1			1			2			2			
HCM Control Delay	15.9			12.8			12.9			13.3			
HCM LOS	C			R			R			R			

Lane	NBLn1	EBLn1	EBLn2V	VBLn1V	VBLn2	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					
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	В	С	С	В	В	В	
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		414			414			4			4	
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 M	ajor1		N	/lajor2		N	Minor1		N	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	N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1			
Capacity (veh/h)		252	881		_	902			199			
HCM Lane V/C Ratio		0.095		-	_	0.022	_	_	0.714			
HCM Control Delay (s)		20.8	9.5	0.5	_	9.1	0.1	_	58.5			
HCM Lane LOS		C	Α.	Α	_	A	A	_	50.5 F			
HCM 95th %tile Q(veh)		0.3	0.3	-	-	0.1	-	-	4.6			
/ 54 / 54 54 54 54 54		3.0	3.0			3.1			1.0			

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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	90	-	-	00	-	-	83	83	82	111	111	90
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	4.12	_		4.12	-	-	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 2	-	-		_	-		6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	_	_	2.218	_	-	3.518		3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1498	_	_	1510	_	_	768	700	978	756	697	960
Stage 1	- 1770	_	_	-	_	_	925	826	-	894	804	-
Stage 2	_	_	_	_	_	-	896	803	_	916	822	-
Platoon blocked, %		_	_		_	_	070	000		710	522	
Mov Cap-1 Maneuver	1493	_	_	1509	_	-	762	692	976	736	689	956
Mov Cap 1 Maneuver	-	_	-	-	_	_	762	692	-	736	689	-
Stage 1	-	_	-	-	-	-	923	824	-	890	797	-
Stage 2		_	-	_	_	-	889	796		899	820	-
3.ago 2							307	. , 5		3,,	320	
) A / E			NE			0.5		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.6			9.4			9.7		
HCM LOS							Α			Α		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)		843	1493		_	1509			765			
HCM Lane V/C Ratio		0.036		_		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	-	Α			
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		4			4			4			4	
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	e,# -	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 I	Major1		<u> </u>	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							Α			Α		
Minor Lane/Major Mvm	nt	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		Α	Α	Α	-	Α	Α	-	А			
HCM 95th %tile Q(veh))	0.2	0	-	-	0	-	-	0.2			

Int Delay, s/weh 3													
Movement	Intersection												
Carefic Vol. verb/h	Int Delay, s/veh	3											
Carefic Vol. verb/h	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBI	NBT	NBR	SBI	SBT	SBR
Traffic Vol, veh/h													
Future Vol, veh/h		1		2	13		2	7		13	1		5
Conflicting Peds, #hr		-						•			•		
Sign Control Free Stop Stop Stop Stop Stop None Colorade	·												
RT Channelized - None No							Free						Stop
Storage Length		-									•		
Weh in Median Storage, # 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - 0 - - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 0 - 0 0 - 0 0 - 0 0 - 0 0 - 0 0 - 0 0 100 <t< td=""><td></td><td></td><td></td><td>-</td><td>-</td><td>-</td><td>-</td><td></td><td>-</td><td>-</td><td></td><td></td><td>-</td></t<>				-	-	-	-		-	-			-
Grade, % - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - 1 0 100 <th< td=""><td></td><td>. # -</td><td>0</td><td>_</td><td>-</td><td>0</td><td>-</td><td>-</td><td>0</td><td>-</td><td>-</td><td>0</td><td>-</td></th<>		. # -	0	_	-	0	-	-	0	-	-	0	-
Peak Hour Factor		-		_	-								_
Major/Minor Major1 Major2 Minor1 Minor2 Minor3 Major4 Major5 Minor4 Major5 Minor4 Major5 Minor5 Major5 Minor6 Major6 Major6 Major6 Major7 Minor7 Major7 Major7 Major7 Minor7 Major7 Major7 Minor7 Major7 Minor8 Minor8 Minor8 Major8 Minor9 Minor9 Major8 Minor9 Major8 Minor9 Major8 Minor8 Minor8 Minor8 Major8 Major		100		100	100		100	100		100	100		100
Mymin Flow 1 46 2 13 55 2 7 11 13 1 3 5 Major/Minor Major1 Major2 Minor1 Minor2 Minor2 Conflicting Flow All 58 0 0 48 0 0 136 133 49 146 133 58 Stage 1 - - - - - 49 49 - 83 83 - Stage 2 - - - - - 49 49 - 83 83 - Critical Hdwy 4.12 - - 4.12 - - 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 <													
Major/Minor Major Major Major Minor Minor													
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 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 <													
Conflicting Flow All 58 0 0 48 0 0 136 133 49 146 133 58 Stage 1 - - - - - 49 49 - 83 83 - Stage 2 - - - - - 47 49 49 - 83 83 - 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 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 <td< td=""><td>Major/Minor N</td><td>Maior1</td><td></td><td>_ N</td><td>Maior?</td><td></td><td>- 1</td><td>Minor1</td><td></td><td></td><td>Minor?</td><td></td><td></td></td<>	Major/Minor N	Maior1		_ N	Maior?		- 1	Minor1			Minor?		
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 - 2.218 - 6.12 5.52 - 6.12 5.52 - Follow-up Hdwy 2.218 - 1559 - 835 758 1002 823 758 1008 Stage 1 - - - - 921 825<			0			0			122			122	50
Stage 2 - - - - 87 84 - 63 50 - Critical Hdwy 4.12 - 4.12 - 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.22 7.12 6.22 7.12 6.22 7.12 6.22 7.12 6.12 5.22 7.12 6.12 5.22 7.12 6.12 5.22 7.12 6.12 8.23 7.12 6.12 8.23 7.12 6.12													
Critical Hdwy Stg 1 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 - Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - Critical Hdwy Stg 2 6.12 5.52 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 Critical Hdwy Stg 2	O .			_	_								
Critical Hdwy Stg 1 - - - - 6.12 5.52 - 6.12 8.01 8.01 6.12 8.01 <td></td> <td><i>1</i> 12</td> <td>-</td> <td>-</td> <td><i>1</i> 12</td> <td>-</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>6 22</td>		<i>1</i> 12	-	-	<i>1</i> 12	-	-						6 22
Critical Hdwy Stg 2	3	4.12		_	4.12								
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, % 1559 - 822 750 1018 795 750 1006 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 - Platom blocked, %		_		_		_							-
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, % - - - - - - - - 948 853 - 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 - A - - - - - - 904<		2 218	_	_	2 218	_							3 318
Stage 1 - - - - 964 854 - 925 826 - Stage 2 - - - - 921 825 - 948 853 - Platoon blocked, % -				_		_							
Stage 2 - - - - 921 825 - 948 853 - Platoon blocked, % - <t< td=""><td>•</td><td>1040</td><td></td><td></td><td>1007</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1000</td></t<>	•	1040			1007								1000
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				_									
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 SB HCM Control Delay, s 0.1 1.4 9.3 9.1 HCM LOS A A A Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1			_	_		_		721	020		740	000	
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 SB NB SB NB		1545		_	1559	_		822	750	1018	795	750	1006
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 A Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1		-	_	_	-	_							
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 A Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1		_	_	_	_	_							_
Approach EB WB NB SB HCM Control Delay, s 0.1 1.4 9.3 9.1 HCM LOS A A A Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1	ū	_	_	_	_	_							
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									3.7		/=	302	
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	Annroach	FR			WR			MR			SR		
HCM LOS A A Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1													
Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1		0.1			1.4								
	TIOWI LOO							A			A		
,	Minor Long/Maior M		VIDL1	EDI	EDT	EDD	WDI	MDT	MDD	CDL1			
Canacity (VANIN) 867 T5/15 = 1550 = 880		it l						WBI	WBR				
	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						-		Α					
HCM 95th %tile Q(veh) 0.1 0 0 0	HCM 95th %tile Q(veh)		0.1	0	-	-	0	-	-	0			

Intersection						
Int Delay, s/veh	3.3					
	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	₽			र्स	¥	
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
	ajor1		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	_
Jiago Z	-	-	_	_	743	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.2		8.7	
HCM LOS					Α	
		NBLn1	EDT	EDD	MDI	WDT
Minor Long/Material		urini	EBT	EBR	WBL	WBT
Minor Lane/Major Mvmt						
Capacity (veh/h)	ľ	1006	-	-	1556	-
Capacity (veh/h) HCM Lane V/C Ratio	ľ	1006 0.039			0.012	-
Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s)		1006 0.039 8.7	-			0
Capacity (veh/h) HCM Lane V/C Ratio		1006 0.039	-	-	0.012	-

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	2,# -	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 I	Major1			Major2			Minor1			Minor2		
Conflicting Flow All		0		<u>viajui 2</u> 59	0			200			210	70
<u> </u>	71	0	0		0	0	224 127	208 127	55 -	209 79	79	
Stage 1		-	-	-	-	-	97	81		130	131	-
Stage 2	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy	4.12			4.12	-	-	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	
Critical Hdwy Stg 2	2.218			2.218		-	3.518		3.318	3.518	4.018	3.318
Follow-up Hdwy Pot Cap-1 Maneuver	1529	-	-	1545	-	-	732	4.018	1012	748	4.018	993
	1029			1040	-	-	877	791	1012	930	829	993
Stage 1	-	-	-	-	-	-	910	828	-	874	788	
Stage 2 Platoon blocked, %						-	910	020	-	0/4	700	-
	1524	-	-	15//	-	-	600	640	1011	724	666	001
Mov Cap 2 Manager	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							Α			Α		
Minor Lane/Major Mvm	nt f	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1			
Capacity (veh/h)		759	1526		-	1544			939			
HCM Lane V/C Ratio		0.012		_		0.003	-	_	0.043			
HCM Control Delay (s)		9.8	7.4	0	_	7.3	0		9			
HCM Lane LOS		7.0 A	Α.4	A	-	7.5 A	A	_	A			
HCM 95th %tile Q(veh))	0	0.1	-		0	-	_	0.1			
	1	U	0.1			U	_	_	0.1			

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	В

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	А			Α			А			В		

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	Α	Α	Α	В	
HCM 95th-tile Q	0.8	0.3	0.6	2.4	

Cumulative AM.syn
Hexagon
Synchro 10 Report
12/14/2018

Intersection				
Intersection Delay, s/v	e h39 .5			
Intersection LOS	Е			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 Le	ft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach Rig	ghtNB			SB			WB			EB			
Conflicting Lanes Right	1			1			1			1			
HCM Control Delay	15			13.5			21.4			64.8			
HCM LOS	В			В			С			F			

Lane	NBLn1	EBLn1\	VBLn1	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	С	В	В	F
HCM 95th-tile Q	5	1.8	1.3	15.7

Cumulative AM.syn
Hexagon
Synchro 10 Report
12/14/2018

Intersection												
Int Delay, s/veh	5.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	LUL	4	LDIN	VVDL	₩	44DI(NDL	4	NUI	JDL	4	JUIN
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 N	Major1			Major2		1	Minor1		1	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							Α			Α		
Minor Lane/Major Mvm	nt ſ	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		913	1606	_	_	1493	-	-	-			
HCM Lane V/C Ratio			0.001	-	-	0.001	-	-	-			
HCM Control Delay (s)		9.7	7.2	0	-	7.4	0	_	0			
HCM Lane LOS		Α	Α	A	-	Α	A	-	A			
HCM 95th %tile Q(veh))	0.6	0	-	-	0	-	-	-			

Cumulative AM.syn
Hexagon
Synchro 10 Report
12/14/2018

Intersection						
Int Delay, s/veh	0.8					
		EDD	NDI	NDT	CDT	CDD
Movement	EBL Y	EBR	NBL	NBT	SBT	SBR
Lane Configurations		00	0	4	†	7
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		-	-	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 I	Minor2		Major1	١	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	0.22	7.12	_	_	_
Critical Hdwy Stg 2	5.42					
Follow-up Hdwy		3.318	2.218	_	_	_
Pot Cap-1 Maneuver	109	405	752		_	
Stage 1	461	403	132	_		_
Stage 2	401	_			_	
Platoon blocked, %	401	-	-			-
	106	404	750	-	-	-
Mov Cap-1 Maneuver	106					
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	С					
NA'		NDI	NDT	EDL1	CDT	CDD
Minor Lane/Major Mvm	11	NBL		EBLn1	SBT	SBR
Capacity (veh/h)		750	-	0_0	-	-
		0.012	-	0.22	-	-
HCM Lane V/C Ratio			_			
HCM Lane V/C Ratio HCM Control Delay (s)		9.9	0	19	-	-
HCM Lane V/C Ratio			0 A		-	-

Movement WBL WBR NBT NBR SBL SBT
Lane Configurations Y ↑↑ 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 (Ob), veh 0 0 0 0 0 0 Ped-Bike Adj(A_pbT) 1.00 1.00 1.00 1.00 1.00 1.00 Parking Bus, Adj 1.00 1.00 1.00 1.00 1.00 1.00 1.00 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 1.00 Peak Hour Factor 1.00 1.00 1.00
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 0 0 0 Ped-Bike Adj(A_pbT) 1.00 1.00 1.00 1.00 1.00 Parking Bus, Adj 1.00 1.00 1.00 1.00 1.00 1.00 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 0 2 0 0 2 Peak Hour Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Parrive 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 836 0 1525 0 0 1525 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 Upstream Filter(I) 1.00 0.00 1.00 0.0 0.0 9.8 Incr Delay (d2), s/veh 12.7 0.0 0.2 0.0 0.0 9.8 Incr Delay (d2), s/veh 12.7 0.0 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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 0 0 Ped-Bike Adj(A_pbT) 1.00 1.00 1.00 1.00 1.00 Parking Bus, Adj 1.00 1.00 1.00 1.00 1.00 1.00 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 Parrive 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 836 0 1525 0 0 1329 V/C Ratio(X) 0.91 0.00 0.30 0.00 0.00 Lane Grp Cap(c), veh/h 836 0 1525 0 0 1525 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 Upstream Filter(I) 1.00 0.00 1.00 0.00 0.00 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 0.0
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 1.00 Parking Bus, Adj 1.00 1.00 1.00 1.00 1.00 Adj Sat Flow, veh/h/n 1863 1900 1863 1900 0 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 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
Initial Q (Qb), veh
Ped-Bike Adj(A_pbT) 1.00 </td
Parking Bus, Adj 1.00
Adj Saf 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 1.00 Peak Hour Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Peak Hour Factor 1.00
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
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 0.0 8.8 Prop In Lane 0.97 0.03 0.00
Peak Hour Factor 1.00 2 2 0 2 2 0 2 2 0 2 2 0 2 2 0 2 2 0 2 2 0 2 2 0 2 2 0 0 1329 0 0 1329 0 0 3725 0 0 3725 0 0 3725 0 0 3725 0 0 3725 0 0 3725 0 0 3725 0 0 3725 0 0 1770 0 0 0 0 0 0 0 <t< td=""></t<>
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 0.0 8.8 Prop In Lane 0.97 0.03 0.00 0.0 0.0 Lane Grp Cap(c), veh/h 736 0 1329 0 0 1329 V/C Ratio(X) 0.91 0.00 0.30 0.00 </td
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 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 8.8 Prop In Lane 0.97 0.03 0.00 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 0.00 0.75 Avail Cap(c_a), veh/h 836 0
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/In 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 8.8 Prop In Lane 0.97 0.03 0.00 0.00 8.8 Prop In Lane 0.97 0.03 0.00 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 0.00 0.75 Avail Cap(c_a), veh/h 836 0 <td< td=""></td<>
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/In 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 8.8 Prop In Lane 0.97 0.03 0.00 0.00 8.8 Prop In Lane 0.97 0.03 0.00 0.00 0.00 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 0 0 1525 HCM 0 0 0 0 0 0 0 0 0
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 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 1.00 Upstream Filter(I) 1.00 0.00 1.00 0.00 0.0 0.0 9.8 Incr Delay (d2), s/veh 12.7 0.0 0.2 0.0 0.0 2.0 <
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 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 1.00 Upstream Filter(I) 1.00 0.00 1.00 0.00 0.0 0.0 9.8 Incr Delay (d2), s/veh 9.9 0.0 7.9 0.0 0.0 9.8 Initial Q Delay(d3),s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 </td
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 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 1.00 Upstream Filter(I) 1.00 0.00 1.00 0.00 0.0 0.0 9.8 Incr Delay (d2), s/veh 9.9 0.0 7.9 0.0 0.0 9.8 Initial Q Delay(d3),s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 </td
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 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 0.0 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 0.0 0
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 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 1.00 1.00 Upstream Filter(I) 1.00 0.00 1.00 0.00 0.00 0.0 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 0.0 0.0 4.5 LnGrp Delay(d), s/veh 22.6 0.0
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
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 1.00 Upstream Filter(I) 1.00 0.00 1.00 0.00 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 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
V/C Ratio(X) 0.91 0.00 0.30 0.00 0.05 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 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
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 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 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
HCM Platoon Ratio 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
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 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
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 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.5 1.4 0.0 0.0 4.5 1.7
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.
%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
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
LnGrp LOS C A B Approach Vol, veh/h 673 398 999
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
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+l1), 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

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		41∱	7		4T)			4	7		4	7
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(q_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
·0= /	22.1	14.1	25.8	19.1	0.0	19.1	25.5	0.0	1.2	27.0	0.0	0.9
Cycle Q Clear(g_c), s		14.1			0.0			0.0			0.0	
Prop In Lane	0.25	F20	1.00	0.10	0	0.44	0.37	0	1.00	0.16	0	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	С	С	В	D		D	D		С	D		<u>C</u>
Approach Vol, veh/h		948			651			466			494	
Approach Delay, s/veh		23.8			36.2			48.3			47.5	
Approach LOS		С			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									

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	ሻ	†	†	7	ሻ	7	
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	
2 Serve(q_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	12.7		1.00	1.00	1.00	
_ane 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	
Jpstream 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	В	С	В	E	В	
Approach Vol, veh/h		765	680		819		
Approach Delay, s/veh		37.2	17.7		41.0		
Approach LOS		D	В		D T1.0		
<u> </u>							
imer	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	
ntersection Summary							
HCM 2010 Ctrl Delay			32.7				
HCM 2010 LOS			С				
Votes							
HCM 2010 computational en	aine rea	uires equa	al clearan	ce times f	or the nh	ases cros	ssing the barrier.
TIOM 2010 computational chi	gino roqu	an oo oque	ar Giodi di i	00 111103 1	or the pri	4303 0100	Joing the bullion

Cumulative AM.syn Hexagon

Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h	193 193 7 0 1.00 1.00 193 0 1.00 2 277 0.29	## 132	12 12 14 0 0.98 1.00 1900	45 45 3 0 1.00 1.00	WBT 19 19 8 0	WBR 173 173 18	NBL 1 1	NBT 41- 803 803	NBR 82 82	SBL ** 289 289	SBT †1 - 933 933	SBR 33
Traffic Volume (veh/h) Future Volume (veh/h) Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	193 7 0 1.00 1.00 1900 193 0 1.00 2 277	132 132 4 0 1.00 1863 132	12 14 0 0.98 1.00	45 3 0 1.00	19 19 8	173 173 18	1	803 803	82	289	933	33
Future Volume (veh/h) Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	193 7 0 1.00 1.00 1900 193 0 1.00 2 277	132 4 0 1.00 1863 132 1	12 14 0 0.98 1.00	45 3 0 1.00	19 8	173 18	1	803	82			33
Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	7 0 1.00 1.00 1900 193 0 1.00 2	1.00 1863 132	14 0 0.98 1.00 1900	3 0 1.00	8	18				289	വാവ	
Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	0 1.00 1.00 1900 193 0 1.00 2 277	1.00 1863 132	0 0.98 1.00 1900	0 1.00			1			207	733	33
Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	1.00 1.00 1900 193 0 1.00 2	1.00 1863 132	0.98 1.00 1900	1.00	0			6	16	5	2	12
Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	1.00 1900 193 0 1.00 2 277	1863 132 1	1.00 1900			0	0	0	0	0	0	C
Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	1900 193 0 1.00 2 277	1863 132 1	1900	1.00		0.98	1.00		0.98	1.00		1.00
Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	193 0 1.00 2 277	132 1			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	0 1.00 2 277	1	12	1900	1863	1863	1900	1863	1900	1863	1863	1900
Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	1.00 2 277		١Z	45	19	173	1	803	82	289	933	33
Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	2 277	1.00	0	0	1	1	0	2	0	1	2	C
Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	277		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane		2	2	2	2	2	2	2	2	2	2	2
Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	0.20	157	13	323	124	852	45	921	94	447	2071	73
Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.25	0.59	0.59
Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	708	539	46	847	425	1558	1	3167	323	1774	3487	123
Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	337	0	0	64	0	173	473	0	413	289	473	493
Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	1293	0	0	1272	0	1558	1862	0	1629	1774	1770	1841
Cycle Q Clear(g_c), s Prop In Lane	17.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.3	11.6	11.9	11.9
Prop In Lane	20.3	0.0	0.0	2.7	0.0	0.0	19.3	0.0	19.3	11.6	11.9	11.9
	0.57		0.04	0.70		1.00	0.00		0.20	1.00		0.07
Lane Gid Cadica, venin	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	С			С		Α	D		D	С	В	В
Approach Vol, veh/h		337			237			886			1255	
Approach Delay, s/veh		33.1			12.6			42.0			14.5	
Approach LOS		С			В			D			В	
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+l1), 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 Car belay			23.0 C									
Notes * HCM 2010 computational engi												

Cumulative AM.syn Hexagon

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	1/1/1	ተተተ	^		"	77	
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	<u> </u>		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	
	1721	18.1	18.9	18.9	23.4	15.2	
Q Serve(g_s), s Cycle Q Clear(q_c), s	12.6	18.1	18.9	18.9	23.4	15.2	
, ,	1.00	10.1	10.9	0.69	1.00	1.00	
Prop In Lane	651	2742	1012	481	635	1525	
Lane Grp Cap(c), veh/h V/C Ratio(X)	0.88	2742 0.62	1013		0.89	0.55	
			0.86	0.86			
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	В	D	D	D	В	
Approach Vol, veh/h		2277	1286		1406		
Approach Delay, s/veh		21.1	38.0		21.8		
Approach LOS		С	D		С		
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+l1), 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	J						
			2F 7				
HCM 2010 Ctrl Delay			25.7				
HCM 2010 LOS			С				

Lane Configurations		۶	→	•	•	+	4	1	†	<i>></i>	\	↓	-√
Lane Configurations	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Fratfic Volume (veh/h)													1
Future Volume (veh/h)				209	29		27				28		449
Number 3 8 18 7 4 14 14 5 2 12 12 1 6 1	, ,							99					449
Initial Q (Ob), yeh						4		5					16
Parking Bus, Adj	Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0
Parking Bus, Adj	Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.98	1.00		0.97
Adj Flow Rate, veh/h 508 0 209 29 17 27 99 767 90 28 1103 44 Adj No of Lanes 2 0 1 1 0 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 2 <t< td=""><td></td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td></t<>		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 No. of Lanes 2 0 1 1 1 0 1 2 1 1 2 1 1 2 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj No. of Lanes 2 0 1 1 1 0 1 2 1 1 2 1 1 2 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Adj Flow Rate, veh/h	508	0	209	29	17	27	99	767	90	28	1103	449
Percent Heavy Veh, % 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		2	0	1	1	1	0	1	2	1	1	2	1
Cap, veh/h 580 0 257 104 37 60 522 2311 1101 36 1326 83 Arrive On Green 0.16 0.00 0.06 0.06 0.06 0.05 0.09 1.00 0.02 0.37 0.03 1572 1774 641 1017 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 1770 1545 1774 1770 1545 1774 1770 1545 1774 1770 152 174 0 1658 </td <td>Peak Hour Factor</td> <td>1.00</td>	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
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 0.3 SAI Flow, veh/h 3548 0 1572 1774 641 1017 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 1770 1770 1545 1774 1770 1545 1774 1770 1770 1770 1770 1770 1770 1770	Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Sat Flow, veh/h 3548 0 1572 1774 641 1017 1774 3539 1545 1774 3539 1545 Gry Volume(v), veh/h 508 0 209 29 0 44 99 767 90 28 1103 44 Gry Sat Flow(s), veh/h/lin 1774 0 1572 1774 0 1658 1774 1770 1545 1774 1770 1540 O 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. Cycle O Clear(g_C,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. Cycle O Clear(g_C,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. Cycle O Clear(g_C,c), s 22.4 0.0 0.6 0.6 1.0 0.0 <td>Cap, veh/h</td> <td>580</td> <td>0</td> <td>257</td> <td>104</td> <td>37</td> <td>60</td> <td>522</td> <td>2311</td> <td>1101</td> <td>36</td> <td>1326</td> <td>836</td>	Cap, veh/h	580	0	257	104	37	60	522	2311	1101	36	1326	836
Grp Volume(v), veh/h 508 0 209 29 0 44 99 767 90 28 1103 44 Grp Sat Flow(s), veh/h/ln 1774 0 1572 1774 0 1658 1774 1770 1545 1777 1770 1540 2 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. 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. 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. 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. 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. 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. Cycle Q Clear(g_c), veh/h 580 0 257 104 0 97 522 2311 1101 36 1326 83 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 0.5 Avail Cap(c_a), veh/h 820 0 363 299 0 280 522 2311 1101 67 1398 86 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 1.00 2.00 2	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
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. 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. Prop In Lane 1.00 1.00 1.00 0.61 1.00 <	Sat Flow, veh/h	3548	0	1572	1774	641	1017	1774	3539	1545	1774	3539	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. 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. Prop In Lane 1.00	Grp Volume(v), veh/h	508	0	209	29	0	44	99	767	90	28	1103	449
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. Prop In Lane 1.00 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 83 Vic Ratio(X) 0.88 0.00 0.81 0.28 0.00 0.45 0.19 0.33 0.08 0.79 0.83 0.5 Avail Cap(c_a), veh/h 820 0 363 299 0 280 522 2311 1101 67 1398 86 HCM Platoon Ratio 1.00 0.00 0.00	Grp Sat Flow(s), veh/h/ln	1774	0	1572	1774	0	1658	1774	1770	1545	1774	1770	1540
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 83 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 0.5 Avail Cap(c_a), veh/h 820 0 363 299 0 280 522 2311 1101 67 1398 86 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 2.00 2.00 2.00 1.10 1.00 1.00 1.00 1	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
Lane Grp Cap(c), veh/h 580 0 257 104 0 97 522 2311 1101 36 1326 83 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 0.5 Avail Cap(c_a), veh/h 820 0 363 299 0 280 522 2311 1101 67 1398 86 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 0.74 0.74 0.74 1.00 1.00 1.00 1.00 Upstream Filter(f) 1.00 0.00 1.00 0.00 0.00 0.074 0.74 0.74 0.74 1.00 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 74 0.74 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 0.0 0.		22.4	0.0	20.5	2.5	0.0	4.1	4.1	0.0	0.0	2.5	45.3	30.4
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 0.5 Avail Cap(c_a), veh/h 820 0 363 299 0 280 522 2311 1101 67 1398 86 HCM Platoon Ratio 1.00 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 1.00 1.00 1.00 0.00 1.00	Prop In Lane	1.00		1.00	1.00		0.61	1.00		1.00	1.00		1.00
Avail Cap(c_a), veh/h 820 0 363 299 0 280 522 2311 1101 67 1398 86 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 2.00 2.00	Lane Grp Cap(c), veh/h	580	0	257	104	0	97	522	2311	1101	36	1326	836
HCM Platoon Ratio	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
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 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. 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 2.1 Initial Q Delay(G3), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Avail Cap(c_a), veh/h	820	0	363	299		280		2311	1101	67	1398	867
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. 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 2.1 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.		1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
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 2.1 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.													1.00
Initial Q Delay(d3),s/veh													24.1
%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 18.1 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 26.2 LnGrp LOS E E E E E C A A F D 0 Approach Vol, veh/h 717 73 956 1580 Approach Delay, s/veh 72.4 74.4 2.7 45.2 Approach LOS E E E A D Timer 1 2 3 4 5 6 7 8 Assigned Phs 1 2 3 4 5 6 7 8 Assigned Phs 1 2 4 5 6 8 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													2.5
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. LnGrp LOS E E E E E C A A F D O Approach Vol, veh/h 717 73 956 1580 Approach Delay, s/veh 72.4 74.4 2.7 45.2 Approach LOS E E E A D Timer 1 2 3 4 5 6 7 8 Assigned Phs 1 2 4 5 6 8 8 Phs Duration (G+Y+Rc), s 7.2 109.1 13.6 51.7 64.6 30.2 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 (p_c), s </td <td></td> <td>0.0</td>													0.0
LnGrp LOS E E E E E C A A F D O Approach Vol, veh/h 717 73 956 1580 Approach Delay, s/veh 72.4 74.4 2.7 45.2 Approach LOS E 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													18.0
Approach Vol, veh/h 717 73 956 1580 Approach Delay, s/veh 72.4 74.4 2.7 45.2 Approach LOS E 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+l1), 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			0.0			0.0						51.6	26.5
Approach Delay, s/veh		<u>E</u>		<u>E</u>	E		E	C		A	F		<u>C</u>
Approach LOS E 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													
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													
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	Approach LOS		E			Е			А			D	
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	Timer	1	2	3	4	5	6	7	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	Assigned Phs	1	2		4	5	6		8				
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+l1), 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	Phs Duration (G+Y+Rc), s	7.2	109.1		13.6	51.7	64.6		30.2				
Max Green Setting (Gmax), s 6.0 73.2 * 27 16.0 * 63 37.0 Max Q Clear Time (g_c+l1), 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		4.0	4.6		* 4.2	4.6	* 4.6		4.0				
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	Max Green Setting (Gmax), s	6.0	73.2		* 27	16.0	* 63		37.0				
Intersection Summary HCM 2010 Ctrl Delay 39.5	Max Q Clear Time (g_c+I1), s	4.5	2.0		6.1	6.1	47.3		24.4				
HCM 2010 Ctrl Delay 39.5	Green Ext Time (p_c), s	0.0	15.2		0.2	0.1	12.7		1.7				
J .	Intersection Summary												
HCM 2010 LOS	HCM 2010 Ctrl Delay			39.5									
1000 2010 200	HCM 2010 LOS			D									
Notes	Notes												
User approved volume balancing among the lanes for turning movement.	User approved volume balanci	ng amoi	ng the lan	es for turi	ning move	ement.							

Cumulative AM.syn Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	†	7	7	f)			र्स	7		4	
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	8.0	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	8.0	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	С	В	С		В	В		В	В		
Approach Vol, veh/h		527			714			559			369	
Approach Delay, s/veh		24.4			19.9			14.9			18.6	
Approach LOS		С			В			В			В	
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 (q_c+l1), 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			19.5 B									
Notes												
User approved pedestrian inte	rval to be	e less tha	n phase r	nax greer	٦.							
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Cumulative AM.syn Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	∱ Ъ		ሻ	†	7	ň	ተተኈ		ሻ	^	7
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	10.1	0.00	1.00	01.0	1.00	1.00	00.7	0.16	1.00	01.0	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	0,0	F	E	E	0,0	F	F	F	C	0.0
Approach Vol, veh/h		322			914			2057			1706	
Approach Delay, s/veh		86.4			74.9			144.5			34.9	
Approach LOS		F			Ε			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+l1), 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	8.0	0.0	20.1	0.0	3.3				
Intersection Summary												
HCM 2010 Ctrl Delay			90.6									
HCM 2010 LOS			F									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	↑ ↑		ሻሻ	†	7	ሻ	^	7	ሻሻ	† †	7
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 17.3	0.0 18.4	0.0 18.2	0.0 22.1	0.0 29.6	0.0 13.5	0.0 9.9	0.0 68.4	0.0 15.7	0.0 11.1	0.0	0.0 2.7
%ile BackOfQ(50%),veh/ln	210.1	152.8	159.1	189.0	191.4	63.4	158.1	133.3	16.3	220.8	45.4 55.4	13.1
LnGrp Delay(d),s/veh LnGrp LOS	210.1 F	132.6 F	109.1 F	109.0 F	191.4 F	03.4 E	100.1 F	133.3 F	10.3 B	220.6 F	55.4 E	13.1 B
	г		Г	Г			г		D	Г		D
Approach Vol, veh/h		808 172.4			1407			2968 110.6			2237 76.4	
Approach Delay, s/veh Approach LOS		172.4 F			163.6 F			F			70.4 E	
Арргоасті 103		Г			Г			Г			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+l1), 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	nt turn ty	pe.										

Cumulative AM.syn Hexagon

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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	ሻሻ	77	† †			† †	
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	0.00	0.00	3725	
Grp Volume(v), veh/h	1024	619	1475	0	0	1285	
, ,			1770			1770	
Grp Sat Flow(s), veh/h/ln	1721	1393		0	0		
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	1050	0.00	0.00	1050	
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	С	С	В			В	
Approach Vol, veh/h	1643		1475			1285	
Approach Delay, s/veh	27.8		15.6			14.4	
Approach LOS	С		В			В	
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 (q_c+l1), 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 Cur belay			17.0 B				
HOW ZUTU LUG			D				

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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	ሻሻ	7	1122	^	†	0511
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	Ū	U	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	1003	320	0	847	1749	0
Adj No. of Lanes	2	320	0	2	1749	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1102	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
	0.0	0.9	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh						
%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	С		В	В	
Approach Vol, veh/h	1411			847	1749	
Approach Delay, s/veh	32.8			11.2	12.8	
Approach LOS	С			В	В	
Timer	1	2	3	4	5	6
Assigned Phs	<u> </u>	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+l1), 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			В			

HCM Control Delay

HCM Lane LOS

HCM 95th-tile Q

Movement	Intersection												
Movement		h28.3											
Movement													
Traffic Vol, veh/h 39 408 58 115 532 45 74 127 90													
Traffic Vol, veh/h 39 408 58 115 532 45 74 127 90 38 Future Vol, veh/h 39 408 58 115 532 45 74 127 90 38 Peak Hour Factor 1.00 <t< td=""><td>Movement</td><td>EBL</td><td>EBT</td><td>EBR</td><td>WBL</td><td>WBT</td><td>WBR</td><td>NBL</td><td>NBT</td><td>NBR</td><td>SB</td><td>L</td><td>L SBT</td></t<>	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SB	L	L SBT
Traffic Vol, veh/h 39 408 58 115 532 45 74 127 90 30 Future Vol, veh/h 39 408 58 115 532 45 74 127 90 30 Peak Hour Factor 1.00 <t< td=""><td>Lane Configurations</td><td></td><td>र्सीन</td><td></td><td></td><td>414</td><td></td><td></td><td>4</td><td></td><td></td><td></td><td>4</td></t<>	Lane Configurations		र्सीन			414			4				4
Peak Hour Factor		39	408	58	115	532	45	74	127	90	30		145
Heavy Vehicles, % 2 2 2 2 2 2 2 2 2	Future Vol, veh/h	39	408	58	115	532	45	74	127	90	30		145
Mvmt Flow 39 408 58 115 532 45 74 127 90 30 Number of Lanes 0 2 0 0 2 0 0 1 0 0 Approach EB WB BB SB NB SB Opposing Approach WB EB SB NB SB NB Conflicting Approach Left SB NB BB EB WB Conflicting Lanes Left 1 1 2 2 2 Conflicting Lanes Right 1 1 2 2 2 2 Conflicting Lanes Right 1 1 2	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
Number of Lanes	Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2		2
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 RighNB 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 EBLn2WBLn1WBLn2 SBLn1 VOI Left, % 25% 16% 0% 30% 0% 12% 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 Stop Stop	Mvmt Flow	39	408	58	115	532	45	74	127	90	30		145
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 RighNB 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 EBLn2WBLn1WBLn2 SBLn1 Vol Left, W 25% 16% 0% 30% 0% 12% 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 Stop Stop	Number of Lanes	0	2	0	0	2	0	0	1	0	0		1
Opposing Lanes 2 2 1 1 Conflicting Approach Left SB NB EB WB Conflicting Lanes Left 1 1 2 2 Conflicting Approach RighNB 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 EBLn2WBLn1WBLn2 SBLn1 VOI Left, W 25% 16% 0% 30% 0% 12% Vol Left, W 25% 16% 0% 30% 0% 12% Vol Thru, W 44% 84% 78% 70% 86% 56% Vol Right, W 31% 0% 22% 0% 14% 32% Sign Control Stop Stop Stop Stop Stop Stop Stop Traffic Vol by Lane 291 243 262 381 311 258 </td <td>Approach</td> <td>EB</td> <td></td> <td></td> <td>WB</td> <td></td> <td></td> <td>NB</td> <td></td> <td></td> <td>SB</td> <td></td> <td></td>	Approach	EB			WB			NB			SB		
Conflicting Approach Left SB NB EB WB Conflicting Lanes Left 1 1 2 2 2 Conflicting Approach RighNB SB WB EB Conflicting Lanes Right 1 1 1 2 2 2 HCM Control Delay 21.9 36.5 25.2 22.3 HCM LOS C E D C Lane NBLn1 EBLn1 EBLn2WBLn1WBLn2 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	Opposing Approach	WB			EB			SB			NB		
Conflicting Lanes Left 1 1 1 2 2 2 Conflicting Approach RighNB SB WB EB Conflicting Lanes Right 1 1 1 2 2 2 HCM Control Delay 21.9 36.5 25.2 22.3 HCM LOS C E D C Lane NBLn1 EBLn1 EBLn2WBLn1WBLn2 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	Opposing Lanes	2			2			1			1		
Conflicting Approach RighNB Conflicting Lanes Right 1 1 2 2 2 HCM Control Delay 21.9 36.5 25.2 22.3 HCM LOS C E D D C Lane NBLn1 EBLn1 EBLn2WBLn1WBLn2 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	Conflicting Approach Le	eft SB			NB			EB			WB		
Conflicting Lanes Right 1 1 1 2 2 2.3 HCM Control Delay 21.9 36.5 25.2 22.3 HCM LOS C E D D C Lane NBLn1 EBLn1 EBLn2WBLn1WBLn2 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 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	Conflicting Lanes Left	1			1			2			2		
HCM Control Delay 21.9 36.5 25.2 22.3 HCM LOS C E D C	Conflicting Approach Ri	ghtNB			SB			WB			EB		
Lane	Conflicting Lanes Right	1			1			2			2		
Lane NBLn1 EBLn1 EBLn2WBLn1WBLn2 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 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 2 2 Degree of Util (X) 0.653 0.566 0.592 0.866 0.684 0.588 <	HCM Control Delay	21.9			36.5			25.2			22.3		
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 2 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 8.17	HCM LOS	С			Ε			D			С		
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 8.17													
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	Lane	N	NBLn1 I	EBLn1	EBLn2V	VBLn1\	VBLn2	SBLn1					
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 2 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 Cap 448 430 443 442 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>													
Sign Control Stop 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													
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			31%	0%	22%	0%	14%	32%					
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													
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													
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													
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 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													
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 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													
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 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													
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				•		•	•						
Convergence, Y/N 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		d)											
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 Lane V/C Ratio 0.65 0.565 0.591 0.862 0.681 0.585													
HOM Control Dolor 05 0 01 / 00 1 44 0 0/ 0 00 0			0.65		0.591		0.681						

Cumulative AM.syn
Hexagon
Synchro 10 Report
12/14/2018

22.3

C

3.7

D

5.1

25.2 21.6 22.1 44.9 26.2

3.7

C E

8.8

D

4.6

С

3.4

Intersection												
Int Delay, s/veh	19											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4TÞ			4 14			4			4	
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 M	lajor1		N	Major2			/linor1		ı	Minor2		
Conflicting Flow All	593	0	0	898	0	0	1286	1624	482	1168	1600	312
Stage 1	593	-	U	070	-	-	1015	1024	462	582	582	312
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	4.14	-	_	4.14	-	-	6.54	5.54	0.94	6.54	5.54	0.94
Critical Hdwy Stg 2	-	<u>-</u>	<u>-</u>	-	-	-	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	717	-	-	132	-	-	255	314	- 550	466	497	- 004
Stage 2			_	_			712	484	-	463	313	_
Platoon blocked, %		_	_		_	_	112	707		100	313	
Mov Cap-1 Maneuver	954	_	_	742	_	_	91	85	512	112	87	666
Mov Cap-1 Maneuver	-	_	_	- 172	_	_	91	85	- 512	112	87	-
Stage 1	_	_	_	_	_	_	220	272	_	397	476	-
Stage 2	_	_	_	_	_	_	602	464	_	362	271	_
Jugo Z							002	107		502	<i>-11</i>	
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			0.2			27.4			155.5		
HCM LOS							D			F		
Minor Lane/Major Mvmt	I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1			
Capacity (veh/h)		210	954			742	-		179			
HCM Lane V/C Ratio		0.238		_		0.011	_		1.117			
HCM Control Delay (s)		27.4	9	0.5	_	9.9	0.1		155.5			
HCM Lane LOS		D	Á	Α	_	Α	A	_	F			
HCM 95th %tile Q(veh)		0.9	0.2	-	-	0	-	-	10.1			
		3.7	3,2						. 5. 1			

Intersection												
Int Delay, s/veh	3.6											
		EDT	EDD	MDI	WET	MDD	NDI	NDT	NDD	CDI	CDT	CDD
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	00	70	4		40	4	70	•	♣	•
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	e, # -	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 I	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	7.12	-		7.12	_	-	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-		2.218	-	-	3.518		3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1432	-	-	1469	-	-	563	540	948	529	530	896
•	1432	-	-	1407	-	-	901	808	940	715	670	070
Stage 1 Stage 2	-	-	-	-	-		716	670		858	797	-
Platoon blocked, %	-	-	-		-	-	/ 10	070	-	ბებ	191	-
	1/27	-	-	1//0	-	-	EDE	E00	044	462	500	000
Mov Cap-1 Maneuver	1427	-	-	1468	-	-	535	509	946			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							Α			В		
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SRI n1			
Capacity (veh/h)	r. 1	847	1427	-	LDIX	1468	-	VVDIC -	482			
HCM Lane V/C Ratio		0.11				0.049	-		0.019			
		9.8	-	-								
HCM Long LOS			0	-	-	7.6	0	-				
HCM Lane LOS	١ -	Α	A	-	-	A	А	-	В			
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		4			4			4			4	
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	e,# -	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 I	Major1		1	Major2			Minor1			Minor2		
Conflicting Flow All	108	0	0	96	0	0	426	386	87	399	395	108
Stage 1	100	-	-	70	-	-	100	100	-	285	285	100
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	- 1.12	_	_	- 1.12	_	_	6.12	5.52	- 0.22	6.12	5.52	- 0.22
Critical Hdwy Stg 2	_	-	-	_	_	-	6.12	5.52	_	6.12	5.52	_
Follow-up Hdwy	2.218	-	_	2.218	_	_	3.518		3.318		4.018	3.318
Pot Cap-1 Maneuver	1483	-	-	1498	-	-	539	548	971	561	542	946
Stage 1	00	-	-	, .	-	-	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	-
Annroach	ED			MD			MD			SB		
Approach	EB			WB			NB					
HCM LOS	0.5			3.5			10.8			12.1		
HCM LOS							В			В		
Minor Lane/Major Mvm	nt N	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		В	Α	Α	-	Α	Α	-	В			
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		4			4			4			4	
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	2,# -	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		1	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	4.12	_	_	7.12	_	_	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 2	_	_	_	_	_	_	6.12	5.52	_	6.12	5.52	_
Follow-up Hdwy	2.218	_	_	2.218	-	_	3.518		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, %		_	_		_	_	3,3			301	300	
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	-
g												
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.7			2			10.4			11.1		
HCM LOS	0.1			Z			10.4 B			В		
TIGIVI EUS							ט			ט		
Minor Lang/Major Mum	\t !	MDI 51	EDI	EDT	EDD	WDI	WDT	WBR S	CDI n1			
Minor Lane/Major Mvm	it l	NBLn1	EBL	EBT	EBR	WBL	WBT	WBK:				
Capacity (veh/h)		699	1391	-		1503	-	-	609			
HCM Control Delay (a)			0.007	-	-	0.043	-	-	0.03			
HCM Control Delay (s)		10.4	7.6	0	-	7.5	0	-	11.1			
HCM Lane LOS		В	A	Α	-	A	А	-	В			
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	1			4	¥	
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
Storage Length	_	-	_	-	0	-
Veh in Median Storage	e, # 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
IVIVIIIL I IOVV	103	2	30	UZ		130
Major/Minor	Major1	1	Major2	ľ	Vinor1	
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	_
Stage 2					000	
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.4		10.1	
HCM LOS					В	
Minor Lane/Major Mvr	nt I	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	iit i	872			1406	
			-			-
HCM Control Dolay (c	\	0.183	-		0.027	-
HCM Long LOS)	10.1	-	-		0
HCM Lane LOS	.\	В	-	-	Α 0.1	Α
HCM 95th %tile Q(veh	I)	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		4			4			4			4	
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	2,# -	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 I	Major1			Major2		ı	Minor1		1	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							В			Α		
Minor Lane/Major Mvm	nt ľ	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR :	SBLn1			
Capacity (veh/h)		587	1438	-	-	1511	-	-	820			
HCM Lane V/C Ratio		0.022		-	-	0.001	-	_	0.107			
HCM Control Delay (s)		11.3	7.7	0	-	7.4	0	-	9.9			
HCM Lane LOS		В	Α	A	-	Α	A	-	Α			
HCM 95th %tile Q(veh))	0.1	0.2	-	-	0	-	-	0.4			

Intersection		
Intersection Delay, s/veh	9.1	
Intersection LOS	А	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	LDIX	****	4	WER	NDL	4	HEIL	ODL	4	ODIN
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	Α			А			Α			Α		

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	А	Α	Α	А	
HCM 95th-tile Q	0.8	0.3	0.5	1.3	

Intersection						
Intersection Delay, s/ve	e h 38.5					
Intersection LOS	Е					

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 L	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach R	RightNB			SB			WB			EB			
Conflicting Lanes Right	t 1			1			1			1			
HCM Control Delay	16.6			22.9			24.3			64.2			
HCM LOS	С			С			С			F			

Lane	NBLn1	EBLn1V	VBLn1	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	С	С	С	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		4			4			4			4	
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	e, # -	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 N	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							Α			Α		
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBI n1			
Capacity (veh/h)	1		1595	-		1499		**************************************				
HCM Lane V/C Ratio		0.107		-		0.003	-		-			
HCM Control Delay (s)		9.5	7.3	0	-	7.4	0	-	0			
HCM Lane LOS		7.5 A	7.3 A	A	-	7.4 A	A	-	A			
HCM 95th %tile Q(veh))	0.4	0	-	_	0	-	_	-			
HOW 75th 70the Q(VeH)		0.4	0			0						

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥	LDIX	IVDL	4	<u> </u>	7
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	e,# 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	N	/lajor2	
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		3.318	2 218	_	_	_
Pot Cap-1 Maneuver	81	363	751	-	_	-
•	422	303	751	-		-
Stage 1			-	-	-	-
Stage 2	350	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver		362	749	-	-	-
Mov Cap-2 Maneuver	258	-	-	-	-	-
Stage 1	395	-	-		-	-
Stage 2	349	-	-	-	-	-
Annragah	ГР		MD		CD	
Approach	EB		NB		SB	
HCM Control Delay, s	21.7		0.2		0	
HCM LOS	С					
Minor Lanc/Major Mun	ot	NBL	MDT	EBLn1	SBT	SBR
Minor Lane/Major Mvn	III					SDK
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		Α	Α	С	-	-
HCM 95th %tile Q(veh	1)	0.1	-	1	-	-
,						

	•	•	<u></u>	<u> </u>	<u> </u>	1
Movement	₩BL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	WDL	WDI	† ↑	NUIL	JUL	<u>361</u>
Traffic Volume (veh/h)	536	41	453	624	0	721
Future Volume (veh/h)	536	41	453	624	0	721
Number	7	14	453	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	4.00	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
	8.6		2.7			
Q Serve(g_s), s		0.0		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	10/0	0.00	0.00	10/0
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	12.0 B	0.0	Α	0.0	0.0	7.0 A
Approach Vol, veh/h	578		453			721
Approach LOS	12.0		6.9			7.8
Approach LOS	В		А			А
Timer	1	2	3	4	5	6
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+l1), s		4.7		10.6		6.6
Green Ext Time (p_c), s		2.7		0.1		3.4
		Z.1		U. I		3.4
Intersection Summary						
HCM 2010 Ctrl Delay			9.0			
HCM 2010 LOS			Α			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		41∱	7		4î			4	7		4	7
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	.,.0	1.00	0.05	0.0	0.36	0.51	0.0	1.00	0.18	0.0	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	С	В	С	0.0	D	D	0.0	C	D	0.0	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			C 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		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									

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	"	<u> </u>	↑	7	ኝ	7	
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	
nitial 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	
2 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	4054	000	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	
Jpstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Jniform Delay (d), s/veh	51.4	8.2	27.5	27.0	46.7	25.5	
ncr Delay (d2), s/veh	18.5	0.4	3.3	3.5	15.5	0.5	
nitial 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	
_nGrp Delay(d),s/veh	69.9	8.7	30.7	30.4	62.2	25.9	
_nGrp LOS	E	Α	С	С	E	С	
Approach Vol, veh/h		612	895		825		
Approach Delay, s/veh		41.1	30.6		44.7		
Approach LOS		D	С		D		
imer	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	
Wax Q Clear Time (g_c+l1), s		9.8		32.4	25.4	28.7	
Green Ext Time (p_c), s		1.2		1.8	0.3	2.9	
u = <i>i</i>		1.2		1.0	0.5	۷.7	
ntersection Summary			20.0				
HCM 2010 Ctrl Delay			38.3				
HCM 2010 LOS			D				
Notes							
HCM 2010 computational en	gine requ	ires equa	al clearan	ce times t	or the ph	ases cros	ssing the barrier.

Cumulative PM.syn Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4	7		4T }		۲	∱ 1≽	
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	Е			D		В	Е		Е	С	Α	А
Approach Vol, veh/h		138			252			791			1089	
Approach Delay, s/veh		62.6			27.8			63.6			9.2	
Approach LOS		Е			С			Е			А	
•	1		ว	1		4	7					
Timer		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		8.0				
Intersection Summary												
HCM 2010 Ctrl Delay			33.5									
HCM 2010 LOS			С									
Notes												
* HCM 2010 computational en	gine req	uires equa	al clearan	ce times	for the ph	ases cros	ssing the	barrier.				

Cumulative PM.syn Hexagon

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Movement		— >	WDT			CDD	
Movement Lang Configurations	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	١٦٦	↑ ↑↑	↑↑	227	<u>ነ</u>	77 7	
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	5.5	23.3	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	Α	С	D	D	В	
Approach Vol, veh/h		1652	1781		992		
Approach Delay, s/veh		18.8	36.4		21.5		
Approach LOS		В	D		С		
Timer	1	2	3	4	5	6	
Assigned Phs	1	2				6	
Phs Duration (G+Y+Rc), s	19.7	30.3				50.0	
Change Period (Y+Rc), s	4.0	4.0				4.0	
Max Green Setting (Gmax), s	16.0	26.0				4.0	
Max Q Clear Time (g_c+l1), s	15.5	25.5				7.3	
Green Ext Time (p_c), s	0.2	0.4				7.9	
Intersection Summary							
HCM 2010 Ctrl Delay			26.5				_
HCM 2010 LOS			С				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ř	र्स	7	ሻ	4î		ሻ	† †	7	۲	† †	7
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	C
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	В	А	E	В	В
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			В	
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 balance	ing amon	g the lan	es for turi	ning move	ement.							

Cumulative PM.syn Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	Ŋ	†	7	ሻ	f)			4	7		4	
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(q_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	С	В	В	С		Α	В		В	В		
Approach Vol, veh/h		527			525			477			212	
Approach Delay, s/veh		14.0			13.2			13.4			12.5	
Approach LOS		В			В			В			В	
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+l1), 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			В									

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Movement	EBL	EBT	EBR	₩BL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	↑ ↑		ነ	†	7	ሻ	ተተጉ		ሻ	^	7
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+l1), 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									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	∱ 1>		ሻሻ	†	7	ሻ	^	7	ሻሻ	† †	7
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	С	F	D	В	E	F	В
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 rigi	nt turn ty	pe.										

Cumulative PM.syn Hexagon

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Movement	₩BL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	ሻሻ	777	† †	NDIX	JDL	1	
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	Ü	1.00	1.00	0	
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	0.00	0.00	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(q_s), s	11.9	6.5	44.2	0.0	0.0	8.1	
, 0 _ ,	11.9	6.5	44.2	0.0	0.0	8.1	
Cycle Q Clear(g_c), s	1.00	1.00	44.2	0.00	0.00	Ö. I	
Prop In Lane	707	573	2445	0.00	0.00	2445	
Lane Grp Cap(c), veh/h V/C Ratio(X)	0.77	0.45	0.93	0.00	0.00	0.36	
	1076	871	2445	0.00	0.00	2445	
Avail Cap(c_a), veh/h 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	<u>C</u>	С	В			A	
Approach Vol, veh/h	802		2269			869	
Approach Delay, s/veh	30.7		14.5			5.5	
Approach LOS	С		В			А	
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 (q_c+l1), 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			В				

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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	1,4	7		^	† †	
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	0.00	3725	3725	0.00
	1567			984	944	
Grp Volume(v), veh/h		401	0			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	4 4 4 -	4 4 4 -	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	С	В		С	Α	
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
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			В			
HOW ZOTO LOS			D			

Intersection					
Intersection Delay, s/v	eh14.1				
Intersection LOS	В				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		414			47>			4			4		
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 L	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			2			2			
Conflicting Approach R	igh N B			SB			WB			EB			
Conflicting Lanes Right	t 1			1			2			2			
HCM Control Delay	15.5			13.3			12.9			12.6			
HCM LOS	С			В			В			В			

Lane	NBLn1	EBLn1	EBLn ₂ V	VBLn ₁ V	VBLn2	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)			0.505	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	В	С	С	В	В	В	
HCM 95th-tile Q	1.5	3	2.8	1.9	1.4	1.2	

Intersection												
Intersection Int Delay, s/veh	5.7											
ini Delay, S/Ven												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		€1 }			€ 1₽			4			4	
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 Major/Minor	ajor1		_ N	Major2		N	/linor1		_ \	/linor2		
Conflicting Flow All	765	0	0	897	0	0	1484	1909	482	1452	1891	398
Stage 1	705	-	U	077	-	-	1104	1104	402	778	778	370
Stage 2		-			-	-	380	805	-	674	1113	-
	4.14	-		4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	T. (**	-		7.14	-	-	6.54	5.54	0.74	6.54	5.54	0.74
Critical Hdwy Stg 2	-			_	-	-	6.54	5.54	_	6.54	5.54	
	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	-			700	_	_	225	285	-	355	405	- 001
Stage 2	-			_	_	_	614	393	_	410	282	_
Platoon blocked, %		_	_		_	_	017	070		110	202	
Mov Cap-1 Maneuver	822	_		743	_	_	56	46	512	64	47	585
Mov Cap-1 Maneuver	-			- 773	_		56	46	J 1 Z	64	47	J0J -
Stage 1	_			_	_	_	165	209	_	257	376	_
Stage 2				_	_	_	498	365	_	285	206	
Jugo Z							770	303		200	200	
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2			0.4			34.7			62.7		
HCM LOS							D			F		
Minor Lane/Major Mvmt	N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1			
Capacity (veh/h)		145	822	-		743	-	-	176			
HCM Lane V/C Ratio		0.166		_	_	0.027	_		0.699			
HCM Control Delay (s)		34.7	10	1	_	10	0.2	-				
HCM Lane LOS		D	В	A	_	A	Α	_	62.7 F			
HCM 95th %tile Q(veh)		0.6	0.5	-	_	0.1	-	_	4.2			
		3.0	3.0			3.1			1.2			

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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		
	107	0			0			217			าาา	107
Conflicting Flow All		0	0	96	0	0	214	217	91	225	222	
Stage 1	-	-	-	-	-	-	92	92	-	124	124	-
Stage 2	- / 1 1 2	-	-	112	-	-	122	125	- 4 22	101	98	4.22
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	2 210	-	-	2 210	-	-	6.12	5.52	2 210	6.12	5.52	2 210
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, %	1.470	-	-	1407	-	-	727	(71	0/5	710	(70	0.42
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			Α		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SRI n1			
	it l											
Capacity (veh/h)		824	1479	-		1497	-	-	740			
HCM Cantral Dalay (a)		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	Α	-	A	А	-	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		4			4			4			4	
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 1	Major1		1	Major2		ı	Minor1		1	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	- 1.12	_	_	- 1.12	_	_	6.12	5.52	- 0.22	6.12	5.52	- 0,22
Critical Hdwy Stg 2	_	_	_	_	_	_	6.12	5.52	_	6.12	5.52	_
Follow-up Hdwy	2.218	_	_	2.218	_	_	3.518	4.018		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, %		-	_		_	-				3	50.	
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	-
y= -												
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			0.9			9.8			10.1		
HCM LOS	•						A			В		
Minor Lane/Major Mvm	nt N	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		Α.	Α	A	_	Α.	A	_	В			
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		4			4			4			4	
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	2,# -	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 I	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							Α			Α		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		846	1537	-	-	1553	-	-	862			
HCM Lane V/C Ratio			0.001	-	-	0.01	-	_	0.013			
HCM Control Delay (s)		9.4	7.3	0	-	7.3	0	_	9.2			
HCM Lane LOS		Α	А	A	-	А	A	-	Α			
HCM 95th %tile Q(veh))	0.1	0	-	-	0	-	-	0			

Intersection						
Int Delay, s/veh	3.4					
	CDT	EDD	\\/DI	\M/DT	NDI	NIDD
	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	}		.04	€ 10	Y	
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
	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
Mymt Flow	65	0	21	49	3	54
WWITH TOW	00	U	21	77	3	01
Major/Minor Ma	ajor1	ľ	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	
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	-
J						
Annroach	ED		MD		ND	
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.2		8.9	
HCM LOS					Α	
Minor Lane/Major Mvmt	N	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	<u> </u>	982			1529	1101
Capacity (VEII/II)			-		0.014	-
		V VE V				-
HCM Lane V/C Ratio		0.058	-			
HCM Lane V/C Ratio HCM Control Delay (s)		8.9	-	-	7.4	0
HCM Lane V/C Ratio						

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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 I	Major1			Major2		<u> </u>	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							В			Α		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		735	1515	-	-	1537	-	-	931			
HCM Lane V/C Ratio		0.012		-	-	0.003	-	_	0.049			
HCM Control Delay (s)		10	7.4	0	-	7.3	0	-	9.1			
HCM Lane LOS		В	Α	A	-	А	A	-	Α			
HCM 95th %tile Q(veh))	0	0.1	-	-	0	-	-	0.2			

Intersection		
Intersection Delay, s/veh	10.3	
Intersection LOS	В	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					4			4			4	
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	А			Α			Α			В		

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	А	Α	Α	В	
HCM 95th-tile Q	0.8	0.3	0.6	2.4	

Intersection						
Intersection Delay, s/v	e h 45.5					
Intersection LOS	Е					

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 L	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach R	igh N B			SB			WB			EB			
Conflicting Lanes Right	t 1			1			1			1			
HCM Control Delay	15.6			14.4			22.9			78			
HCM LOS	С			В			С			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	С	С	В	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		4			4			4			4	
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	e,# -	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 I	Major1		[Major2		ľ	Minor1		1	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 Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		904	1606	_	_	1478	_	_	_			
HCM Lane V/C Ratio			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	₩ W	LDI	NDL	ND1 €	<u>301</u>	JDK ř
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	e, # 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
D. 4. 1. 1D. 41	N4' 0				4 ' 0	
	Minor2		Major1		/lajor2	
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, %	0,,			_	_	_
Mov Cap-1 Maneuver	104	404	745	_	_	_
Mov Cap-1 Maneuver	298	404	743	-	-	
Stage 1	446	-	-	-	-	-
		-	-	-		•
Stage 2	398	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	19.5		0.1		0	
HCM LOS	C		5.1			
.13111 200						
				EDI 1	05=	055
Minor Lane/Major Mvn	nt	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		Α	Α	С	-	-
HCM 95th %tile Q(veh)	0	-	0.9	-	-

	•	•	†	<u> </u>		
Movement	₩BL	WBR	NBT	NBR	SBL	▼ SBT
Lane Configurations	WDL	WDR	ND ↑ }	NDK	JDL	<u>361</u>
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
. ,	1.00	1.00	U	1.00	1.00	U
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj						
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(q_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	۷. /	0.00	0.00	7.0
Lane Grp Cap(c), veh/h	735	0.03	1333	0.00	0.00	1333
V/C Ratio(X)	0.92	0.00	0.31	0.00	0.00	0.76
	832	0.00	1518	0.00	0.00	1518
Avail Cap(c_a), veh/h						
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	С		Α			В
Approach Vol, veh/h	673		409			1009
Approach Delay, s/veh	22.8		8.1			11.9
Approach LOS	C		A			В
Timer	1	2	3	4	5	6
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+l1), 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			В			

	•	_	_	_	—	•	•	<u></u>	<u> </u>	<u> </u>	1	1
Movement EE	31	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<i>)</i>	44	Į,	VVDL	413	WDIX	NDL	4	T T	JDL	4	7
	42	379	529	33	482	136	166	288	23	76	410	19
, ,	42 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
· /·		U	0.90	1.00	U	0.90	1.00	U	0.97	1.00	U	0.97
, _, ,		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj 1.0									1863			
Adj Sat Flow, veh/h/ln 190		1863	1863 529	1900 33	1863 482	1900 136	1900	1863 288	23	1900 76	1863	1863 19
	42	379					166				410	
Adj No. of Lanes	0	2	1	0	2	1.00	0	1	1	0	1	1
Peak Hour Factor 1.0		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
	95	752	897	63	743	212	186	322	425	85	457	450
Arrive On Green 0.3		0.32	0.32	0.32	0.32	0.32	0.28	0.28	0.28	0.29	0.29	0.29
·	69	2335	1421	87	2308	659	669	1160	1533	289	1559	1535
. , ,	54	267	529	343	0	308	454	0	23	486	0	19
Grp Sat Flow(s), veh/h/ln 89		1610	1421	1559	0	1494	1829	0	1533	1848	0	1535
\ 0 — /·	.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	3.7	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 0.2			1.00	0.10		0.44	0.37		1.00	0.16		1.00
Lane Grp Cap(c), veh/h 32	29	518	897	537	0	481	508	0	425	542	0	450
V/C Ratio(X) 0.4	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 32	29	518	897	537	0	481	654	0	548	694	0	576
HCM Platoon Ratio 1.0	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) 1.0	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
•	.7	3.6	2.8	5.7	0.0	6.4	12.4	0.0	0.1	12.1	0.0	0.0
	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/ln4		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		34.5	17.1	37.9	0.0	38.8	51.2	0.0	29.7	50.0	0.0	28.3
1 317	D	С	В	D		D	D		С	D		С
Approach Vol, veh/h	_	950			651			477			505	
Approach Delay, s/veh		25.1			38.3			50.2			49.2	
Approach LOS		23.1 C			30.3 D			D			47.2 D	
•		U			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+l1)		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 CIT Delay			37.8 D									
HOW ZUTU LUS			D									

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Movement	EBL	EBT	WBT	WBR	SBL	SBR						
Lane Configurations	*	†	†	7		7						
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						
nitial 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/lr		1863	1863	1533	1774	1583						
2 Serve(g_s), s	26.9	13.0	11.4	18.1	36.6	14.7						
Cycle Q Clear(q_c), s	26.9	13.0	11.4	18.1	36.6	14.7						
Prop In Lane	1.00	10.0	11.7	1.00	1.00	1.00						
_ane Grp Cap(c), veh/h		1165	681	1052	551	855						
//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						
Jpstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00						
Uniform Delay (d), s/vel		11.6	30.0	9.8	43.7	17.2						
ncr Delay (d2), s/veh	14.3	0.8	1.3	1.3	11.9	0.2						
nitial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),vel		6.9	6.1	15.4	19.7	16.4						
_nGrp Delay(d),s/veh	63.5	12.4	31.3	11.1	55.6	17.4						
nGrp LOS	E	В	C	В	E	В						
Approach Vol, veh/h	<u> </u>	765	683		822							
Approach Delay, s/veh		37.4	17.7		41.2							
Approach LOS		37.4 D	В		41.2 D							
•		U			U							
Timer	1	2	3	4	5	6	7 8					
Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc)		86.0		44.8	34.0	52.0						
Change Period (Y+Rc),		* 4.2		* 4.2	4.0	* 4.2						
Max Green Setting (Gm		* 82		* 60	45.0	* 33						
Max Q Clear Time (g_c		15.0		38.6	28.9	20.1						
Green Ext Time (p_c), s	S	1.6		2.0	1.0	1.6						
ntersection Summary												
HCM 2010 Ctrl Delay			32.9									
HCM 2010 LOS			С									
Notes												
HCM 2010 computation	onal en	gine red	quires e	equal cle	earance	times f	or the phases of	crossing t	he barrie	r.		

Cumulative+P AM.syn Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4	7		414		ሻ	∱ 1≽	
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/l		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/ł	า 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/ve	h 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/ve	h 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%),ve	h/ln7.9	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	С			С		Α	D		D	С	В	В
Approach Vol, veh/h		341			237			890			1265	
Approach Delay, s/veh		33.2			12.6			42.1			14.7	
Approach LOS		С			В			D			В	
Гimer	1	2	3	4	5	6	7	8				
Assigned Phs	<u>'</u>	2	<u> </u>	4	5	6	<u>'</u>	8				
Assigned Firs Phs Duration (G+Y+Ro	1 0	51.9		28.1	24.4	27.4		28.1				
Change Period (Y+Rc)		4.6		4.6	4.6	* 4.1		4.6				
Max Green Setting (Gr		43.8		27.0	14.9	* 25		27.0				
Max Q Clear Time (g_c		14.1		22.6	13.7	21.4		4.6				
Green Ext Time (p_c),		7.4		0.8	0.1	1.9		0.7				
4 – <i>7</i>	J	7.7		0.0	0.1	1.7		0.7				
Intersection Summary			25.7									
HCM 2010 Ctrl Delay			25.7									
HCM 2010 LOS			С									
Notes												
* HCM 2010 computati	onal en	gine red	quires e	qual cle	earance	times f	or the p	hases	crossin	g the ba	arrier.	

Cumulative+P AM.syn Hexagon

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Movement	EBL	EBT	WBT	WBR	SBL	SBR				
Lane Configurations	ሻሻ	† ††	†††		ሻ	777				
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/lr		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	10.2	17.1	0.70	1.00	1.00				
		2735	1006	477	638	1532				
Lane Grp Cap(c), veh/h V/C Ratio(X)	0.88	0.62	0.87	0.87	0.89	0.55				
, ,		2735	1006	477	682	1600				
Avail Cap(c_a), veh/h	661									
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		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				
%ile BackOfQ(50%),vel		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	В	D	D	D	В				
Approach Vol, veh/h		2282	1292		1416					
Approach Delay, s/veh		21.4	39.2		22.0					
Approach LOS		С	D		С					
Timer	1	2	3	4	5	6	7	8		
Assigned Phs	1	2				6		8		
Phs Duration (G+Y+Rc)	•	27.2				46.0		32.1		
Change Period (Y+Rc),		4.0				4.0		4.0		
Max Green Setting (Gm		23.0				42.0		30.0		
Max Q Clear Time (g_c		21.2				20.2		25.7		
Green Ext Time (p_c), s		1.3				13.1		2.4		
	, 0.1	1.5				10.1		۷.٦		
Intersection Summary			01.0							
HCM 2010 Ctrl Delay			26.2							
HCM 2010 LOS			С							

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	*	4	7	*	1→		*	^	7	*	^	7	
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/lr		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		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		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 9.5	0.0	0.0	0.0	0.0 2.0	0.0	0.0	1.4	23.6	18.0	
%ile BackOfQ(50%),vel LnGrp Delay(d),s/veh	72.3	0.0	72.5	73.2	0.0	75.3	24.3	0.1	0.0	91.1	51.8	26.4	
LnGrp LOS	72.3 E	0.0	72.5 E	73.2 E	0.0	75.5 E	24.3 C	0.5 A	Α	91.1 F	D D	20.4 C	
Approach Vol, veh/h	<u> </u>	717	<u> </u>	<u> </u>	73	<u> </u>		964	<u> </u>	ı	1589		
Approach Delay, s/veh		72.4			74.4			2.7			45.3		
Approach LOS		72.4 E			74.4 E			2. <i>1</i>			40.5 D		
Approach LOS											D		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2		4	5	6		8					
Phs Duration (G+Y+Rc)				13.6	51.5	64.8		30.2					
Change Period (Y+Rc),		4.6		* 4.2	4.6	* 4.6		4.0					
Max Green Setting (Gm		73.2		* 27	16.0	* 63		37.0					
Max Q Clear Time (g_c-		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 I	balanci	ing amo	ng the	lanes fo	or turnir	ng move	ement.						

Cumulative+P AM.syn Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		†	7	ሻ	î,			सी	7		4		
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/li		1863	1526	1774	0	1836	1168	0	1530	1245	0	0	
Q Serve(q_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		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/vel		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	
%ile BackOfQ(50%),vel		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	С	В	С		В	В		В	В			
Approach Vol, veh/h		532			714			563			369		
Approach Delay, s/veh		25.5			20.7			15.1			19.4		
Approach LOS		С			С			В			В		
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),		4.0	4.0	4.0		4.0	4.0	4.0					
Max Green Setting (Gm		21.0	11.0	16.0		21.0	4.0	23.0					
Max Q Clear Time (g_c		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 pedestri	an inte	rval to b	oe less	than ph	ase ma	x greer	١.						
	2 11110		. 5 . 5 . 5	a pi	200 1110	g. 001							

Cumulative+P AM.syn Hexagon

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Movement	EBL	EBT	€BR	₩BL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	LDL Ŋ	↑ Ъ	LDK	VVDL	VVD1 ↑	WDK	NDL	↑ ↑	NDK	JDL N	<u>361</u>	JDK 7
		320	Λ					1942	115			13
Traffic Volume (veh/h)	2	320	0	321 321	365 365	233 233	0	1942	115 115	173 173	1538 1538	13
Future Volume (veh/h) Number	7	320	14	321	8	18	5	1942	12	1/3	1036	16
Initial Q (Qb), veh	0	0	0	0	5	20	0	118	0	0	0	0
	1.00	U	1.00	1.00	3	0.98	1.00	110	0.99	1.00	U	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00		1900	1863	1863		1863	1863	1900	1863	1863	1863
•	1863	1863 320		321	365	1863 233		1942	115	173	1538	
Adj Flow Rate, veh/h	2		0	321			0	1942		1/3	1038	0
Adj No. of Lanes 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	2/1	555	2 473	2	2 2450	55 55	2 191	2 2192	981
Cap, veh/h	4	444	0	341	555							
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
	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/lr		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	4	0.00	1.00		1.00	1.00	4/01	0.16	1.00	0400	1.00
Lane Grp Cap(c), veh/h		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		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	1.7	25.4	0.0	96.4	76.7	0.0	0.0	0.0
%ile BackOfQ(50%),veh		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		86.3	0.0	101.1	61.5	61.4	0.0	152.7	135.6	112.5	26.6	0.0
LnGrp LOS	<u> </u>	F		F	E	<u>E</u>		F	F	F	С	
Approach Vol, veh/h		322			919			2057			1711	
Approach Delay, s/veh		86.9			75.3			146.7			35.2	
Approach LOS		F			Е			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)	, 24.1	98.0	39.7	23.3	0.0	122.1	4.4	58.6				
Change Period (Y+Rc),		4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gm		94.0	46.0	23.0	4.0		4.0	65.0				
Max Q Clear Time (g_c-		62.0	35.0	18.5	0.0	53.5	2.2	33.8				
Green Ext Time (p_c), s		20.6	0.7	0.8	0.0	20.1	0.0	3.3				
Intersection Summary				,,,								
			91.7									
HCM 2010 Ctrl Delay			91.7 F									
HCM 2010 LOS			Г									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	1	ħβ		ሻሻ	†	7	*	^	7	ሻሻ	^	7	
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/li		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		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/vel		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		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/vel %ile BackOfQ(50%),vel		0.0	0.0	0.0 22.4	0.0 29.9	0.0	0.0 9.9	0.0 68.4	15.8	11.1	45.4	2.7	
LnGrp Delay(d),s/veh		154.0	160.2	192.0	193.6	63.4	158.1	133.3	16.4	220.8	55.4	13.1	
LnGrp LOS	210.1 F	154.0 F	100.2 F	192.0 F	193.0 F	03.4 E	136.1 F	133.3 F	10.4 B	220.6 F	55.4 E	13.1 B	
Approach Vol, veh/h	<u> </u>	810	<u> </u>	<u> </u>	1413		<u> </u>	2973	D	<u> </u>	2237	D	
Approach Delay, s/veh		173.2			165.8			110.4			76.4		
Approach LOS		173.2 F			F			F			70.4 E		
Appluacii LU3					- 1						L		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2	3	4	5	6	7	8					
Phs Duration (G+Y+Rc)		96.0	32.0	30.0	18.0	95.0	24.0	38.0					
Change Period (Y+Rc),		4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Max Green Setting (Gm		92.0	28.0	26.0	14.0	91.0	20.0	34.0					
Max Q Clear Time (g_c		94.0	30.0	28.0	16.0	87.3	22.0	36.0					
Green Ext Time (p_c), s	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	s to riat	nt turn t	vne										
osor approved changes	o to rigi	it turri t	JPC.										

Cumulative+P AM.syn Hexagon

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Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	ሻሻ	77	^			^			
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	0.00	0.00	3725			
	1033	619	1476	0	0	1286			
Grp Volume(v), veh/h Grp Sat Flow(s), veh/h/li		1393	1770	0	0	1770			
1 7.						20.5			
Q Serve(g_s), s	22.4	14.9	25.8	0.0	0.0				
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	1047	0.00	0.00	104/			
Lane Grp Cap(c), veh/h		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/vel		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/vel		0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),vel		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	С	С	В			В			
Approach Vol, veh/h	1652		1476			1286			
Approach Delay, s/veh	27.8		15.7			14.5			
Approach LOS	С		В			В			
	1	2		1	Г		7	0	
Timer		2	3	4	5	6	1	8	
Assigned Phs		2				6		8	
Phs Duration (G+Y+Rc)		48.1				48.1		31.9	
Change Period (Y+Rc),		4.1				4.1		4.2	
Max Green Setting (Gm		41.9				41.9		29.8	
Max Q Clear Time (g_c		27.8				22.5		24.4	
Green Ext Time (p_c), s	5	9.1				9.6		3.3	
Intersection Summary									
HCM 2010 Ctrl Delay			19.9						
HCM 2010 LOS			В						

	•	•	•	†		4	
Movement E	EBL	EBR	NBL	NBT	SBT	SBR	
	ሻሻ	T.	HUL	† †	† †	ODIT	
J	091	320	0	848	1758	0	
, ,	091	320	0	848	1758	0	
Number	7	14	5	2	6	16	
	0	0	0	0	0	0	
Initial Q (Qb), veh			-	U	U		
,	.00	1.00	1.00	1.00	1.00	1.00	
	.00	1.00	1.00	1.00	1.00	1.00	
•	863	1863	0	1863	1863	0	
	091	320	0	848	1758	0	
Adj No. of Lanes	2	1	0	2	2	0	
	.00	1.00	1.00	1.00	1.00	1.00	
Percent Heavy Veh, %	2	2	0	2	2	0	
Cap, veh/h 11	183	544	0	1960	1960	0	
	.34	0.34	0.00	0.55	0.74	0.00	
Sat Flow, veh/h 34	442	1583	0	3725	3725	0	
	091	320	0	848	1758	0	
Grp Sat Flow(s), veh/h/ln17		1583	0	1770	1770	0	
	24.4	13.3	0.0	11.2	30.8	0.0	
·0— ,	4.4	13.3	0.0	11.2	30.8	0.0	
	.00	1.00	0.00	11.2	30.0	0.00	
•		544	0.00	1960	1960	0.00	
Lane Grp Cap(c), veh/h 11							
` ,	0.92	0.59	0.00	0.43	0.90	0.00	
	248	574	0	1960	1960	0	
	.00	1.00	1.00	1.00	1.33	1.00	
1 ,	.00	1.00	0.00	1.00	0.58	0.00	
Uniform Delay (d), s/veh 2	5.2	21.6	0.0	10.5	8.8	0.0	
Incr Delay (d2), s/veh 10	0.7	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/1/		5.9	0.0	5.6	15.5	0.0	
` ′	5.9	22.5	0.0	11.2	13.0	0.0	
LnGrp LOS	D	С	0.0	В	В	0.0	
	411			848	1758		
_ I I	2.8			11.2	13.0		
Approach LOS	С			В	В		
Timer	1	2	3	4	5	6	
Assigned Phs		2		4		6	
Phs Duration (G+Y+Rc), s	5	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+l1		13.2		26.4		32.8	
Green Ext Time (p_c), s	1), 3	4.4		1.1		6.5	
		4.4		1.1		0.5	
Intersection Summary							
HCM 2010 Ctrl Delay			19.6				
HCM 2010 LOS			В				

Convergence, Y/N

HCM Lane V/C Ratio

HCM Control Delay

HCM Lane LOS

HCM 95th-tile Q

Service Time

Cap

Intersection													
Intersection Delay, s/ve	h28.7												
Intersection LOS	D												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		414			414			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			2			2			
Conflicting Approach Ri	ightNB			SB			WB			EB			
Conflicting Lanes Right	1			1			2			2			
HCM Control Delay	22.1			37.2			25.3			22.4			
HCM LOS	С			Ε			D			С			
Lane	N	IBLn1	EBLn1	EBLn2V	VBLn1V	VBLn2	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 (Ho	d)	8.103	8.395	8.153	8.198	7.938	8.222						
0 1/11				٠,	٠,								

Synchro 10 Report Cumulative+P AM.syn 01/28/2019 Hexagon

0.654 0.572 0.597 0.863 0.685 0.588

22.4 45.9

C E

Yes

444

Yes

457

26.6

D

5.2

5.9 5.945 5.685 6.269

9

Yes

439

22.4

C

3.7

Yes

442

3.8

Yes

445

6.146 6.142

25.3 21.8

D

4.6

Yes

430

С

3.5

Intersection												
Int Delay, s/veh	20.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		414			414			4			4	
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
<u> </u>	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 M	ajor1		N	Major2		N	Minor1			Minor2		
Conflicting Flow All	594	0	0	900	0	0	1299	1637	483	1180	1613	313
Stage 1	394	-	-	700	-	-	1027	1037	403	583	583	313
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	-	_	_	- 1.17	_	_	6.54	5.54	- 0.74	6.54	5.54	- 0.74
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	-
J .												
Annroach	EB			WB			NB			SB		
Approach												
HCM Control Delay, s HCM LOS	1.1			0.2			28.3			167.3 F		
HOIVI LUS							D			F		
Minor Lane/Major Mvmt		NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	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	А	Α	-	Α	Α	-	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		4			4		.,,,,	4		002	4	02.1
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		ı	Major2		ı	Minor1		1	Minor2		
Conflicting Flow All	162	0	0	131	0	0	422	423	118	463	437	163
Stage 1	102	-	U	131	-	-	117	117	110	306	306	103
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	7.12	_	_	7.12	_	_	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 2	_	_	_	_	_	_	6.12	5.52	_	6.12	5.52	_
Follow-up Hdwy	2.218	_	_	2.218	_	_	3.518			3.518	4.018	3.318
Pot Cap-1 Maneuver	1417	_	_	1454	-	-	542	522	934	509	513	882
Stage 1		_	_	- 101	_	_	888	799	-	704	662	- 002
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							Α			В		
							,,					
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SRI n1			
Capacity (veh/h)	n I	830	1412	LDT	LDI	1453	WDI	WDK.	465			
HCM Lane V/C Ratio		0.112	1412	-	-	0.05	-	-	0.019			
HCM Control Delay (s)		9.9	0	-	-	7.6	0	-	12.9			
HCM Lane LOS		9.9 A	A	-	-	7.0 A	A	-	12.9 B			
HCM 95th %tile Q(veh)	0.4	0		_	0.2	- A	-	0.1			
HOW FOUT FOUTE Q(VEIT)	0.4	U	-	-	0.2	_	_	0.1			

latana atta												
Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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		1	Major2		1	Minor1		1	Minor2		
Conflicting Flow All	119	0	0	103	0	0	444	404	94	417	413	119
Stage 1	117	-	-	100	-	-	107	107	-	296	296	117
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	- 0.22	6.12	5.52	- 0.22
Critical Hdwy Stg 2	_	_	_	_	_	_	6.12	5.52	_	6.12	5.52	_
Follow-up Hdwy	2.218	_	_	2.218	_	_	3.518		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, %		_	_		-	_		500		200		
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		
	0.5			3.3			11			12.3		
HCM Control Delay, s HCM LOS	0.3			3.3			В			12.3 B		
TIGIVI LUS							Ď			Ď		
Minor Lane/Major Mvm	nt 1	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR				
Capacity (veh/h)		639	1467	-	-	1487	-	-	581			
HCM Lane V/C Ratio		0.053		-	-	0.06	-	-	0.153			
HCM Control Delay (s)		11	7.5	0	-	7.6	0	-	12.3			
HCM Lane LOS		В	Α	Α	-	Α	Α	-	В			
HCM 95th %tile Q(veh)	0.2	0	-	-	0.2	-	-	0.5			

Intersection												
Int Delay, s/veh	2.6											
		EDT	EDD	WDL	WDT	WDD	NDI	NDT	NDD	CDI	CDT	CDD
Movement Configurations	EBL	EBT ♣	EBR	WBL	WBT	WBR	NBL	NBT ♣	NBR	SBL	SBT ♣	SBR
Lane Configurations	10	89	10	<i>L</i> 1	192	1	10	3	18	2	7	8
Traffic Vol, veh/h Future Vol, veh/h	10	89	10	64 64	192	1	10	3	18	3	7	8
Conflicting Peds, #/hr	10	09	0	04	0	1	10	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	- -	Jiop -	None	- -	Jiop -	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 I	Major1			Major2		1	Minor1		1	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							В			В		
Minor Lane/Major Mvm	nt N	VBLn1	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		В	Α	Α	-	Α	Α	-	В			
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	<u>₽</u>	LDIN	WDL	₩ <u>₩</u>	₩ W	NDIX
		2	20			150
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
	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
WWW.CT IOW	107	_	00	01	_	100
Major/Minor Ma	ajor1	N	Major2		Vinor1	
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	
Pot Cap-1 Maneuver	-		1405	-	663	873
Stage 1	_	_	1405	_	859	- 075
Stage 2		-		-	868	-
	-	-	-		000	-
Platoon blocked, %	-	-	1 401	-	(10	071
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					В	
Minor Lane/Major Mvmt	N	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	<u> </u>	867	-		1401	11.01
HCM Lane V/C Ratio						-
		0.185	-	-	0.027	-
HCM Long LOS		10.1	-	-	7.6	0
HCM Lane LOS		В	-	-	A	Α
HCM 95th %tile Q(veh)		0.7	-	-	0.1	-
		3.7			3.1	

Movement EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL SBR SBR SBR Traffic Vol, veh/h 96 90 1 2 149 3 3 5 5 6 5 79	Intersection												
Movement		4.1											
Traffic Vol, veh/h			EDT	EDD	MDI	MOT	14/00	NDI	NDT	NDD	001	ODT	000
Traffic Vol, Veh/h		FBL		EBR	WBL		WBR	NBL		NBR	SBL		SBR
Future Vol, veh/h 96 90		0/		4	0		0	0		-	,		70
Conflicting Peds, #/hr 2				-									
Sign Control Free Free Free Free Free Free Free Free Free None	·												
RT Channelized None					•			-					
Storage Length			Free						•		•		
Veh in Median Storage, # - 0		-	•			-	None		-		•		None
Grade, % - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - 0 - 0 - 0 0 100			0			0	-		0		-		-
Peak Hour Factor													
Heavy Vehicles, % 2 2 2 2 2 2 2 2 2													
Mymit Flow 96 90 1 2 149 3 3 5 5 6 5 79 Major/Minor Major1 Major2 Minor1 Minor2 Minor2 Minor2 Conflicting Flow All 154 0 0 92 0 482 442 92 445 441 154 Stage 1 - - - - - 284 284 - 157 157 - Stage 2 - - - 4.12 - 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.62 </td <td></td>													
Major/Minor Major1 Major2 Minor1 Minor2 Conflicting Flow All 154 0 0 92 0 0 482 442 92 445 441 157 Stage 1 - - - - - 284 284 - 157 157 - Stage 2 - - - - 284 284 - 157 157 - - 288 284 - 157 157 - - 288 284 - 157 157 - - 288 284 - - 288 284 - - 288 284 - - 280 284 - - 280 284 - - 280 284 -													
Conflicting Flow All	IVIVIIII I IOW	70	70		2	17/	J	J	J	J	U	J	17
Conflicting Flow All	Major/Mino-	Moler1			Malera			\ line=1			Miner?		
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 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.52 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 5.10 8.8 8									4.40			444	154
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 5.10 8.12 8.12 6.12 5.23			U	U			U						
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 - - - - 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 - - - - - 804 767 - 720 676 - Platoon blocked, % - - - - 422 472 964 487 472 890 Mov Cap-1 Maneuver 1424 - 1502 - 422 472 964 487 472 - 842 -	O .		-	-	-		-						-
Critical Hdwy Stg 1 - - - - 6.12 5.52 - 6.12 8.2 Stage 1 - - - - - - - - - -<			-	-	112		-						4.22
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, % - - - - - 422 472 964 487 472 890 Mov Cap-1 Maneuver - - - - 422 472 - 487 472 - 84 - - 518 88 8 - - </td <td>J</td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	J			-			-						
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 - 7 - 845 510 965 523 510 892 Stage 2 - 7 - 7 - 7 - 804 767 - 720 676 - 845 768 7 - 720 676 7 - 720 676 7 - 845 768 7 - 720 676 7 - 720 67			-	-	-	-	-						
Pot Cap-1 Maneuver 1426 - 1503 - 495 510 965 523 510 892 Stage 1 - - - - - 723 676 - 845 768 - Stage 2 - - - - 804 767 - 720 676 - Plation blocked, % - - - - - 804 767 - 720 676 - Mov Cap-1 Maneuver 1424 - 1502 - 422 472 964 487 472 890 Mov Cap-1 Maneuver - - - - 422 472 964 487 472 890 Mov Cap-1 Maneuver - - - - 671 627 - 783 766 - Stage 1 - - - - 727 765 - 660 627 -			-	-	2 21Q	-	-						
Stage 1 - - - - 723 676 - 845 768 - Stage 2 - - - - 804 767 - 720 676 - Plation blocked, % -<			-	-		-	-						
Stage 2 - - - - 804 767 - 720 676 - Platoon blocked, % - <t< td=""><td></td><td></td><td></td><td></td><td>1303</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>					1303								
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 SB HCM Control Delay, s 4 0.1 11.5 10 HCM 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			_	_		_	_	- 00-r	101		, 20	070	
Mov Cap-2 Maneuver - - - - 422 472 - 487 472 - Stage 1 - - - - - 671 627 - 783 766 - Stage 2 - - - - 727 765 - 660 627 - Approach EB WB NB NB SB HCM Control Delay, s 4 0.1 11.5 10 HCM 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 <t< td=""><td></td><td>1424</td><td>_</td><td>_</td><td>1502</td><td>-</td><td></td><td>422</td><td>472</td><td>964</td><td>487</td><td>472</td><td>890</td></t<>		1424	_	_	1502	-		422	472	964	487	472	890
Stage 1 - - - - 671 627 - 783 766 - Stage 2 - - - - - 727 765 - 660 627 - Approach EB WB NB NB SB HCM Control Delay, s 4 0.1 11.5 10 HCM LOS B 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			_	_		_	_						
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 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		-	_	_	-	-	-						-
Approach EB WB NB SB HCM Control Delay, s 4 0.1 11.5 10 HCM LOS B 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	9	-	-	-	-	-	-			-			-
HCM Control Delay, s 4 0.1 11.5 10 HCM LOS B B B Minor Lane/Major Mvmt NBLn1 EBL 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	<u> </u>												
HCM Control Delay, s 4 0.1 11.5 10 HCM LOS B B B Minor Lane/Major Mvmt NBLn1 EBL 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	Annroach	FR			WR			MR			SB		
Minor Lane/Major Mvmt NBLn1 EBL 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													
Minor Lane/Major Mvmt NBLn1 EBL 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		4			U. I								
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	TOW LOS							D			ט		
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	N. 61		IDI 4	EDI	EDT	EDD	14/51	MOT	14/55	0DL 4			
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		nt 1			EBT			WBT	WBR:				
HCM Control Delay (s) 11.5 7.7 0 - 7.4 0 - 10 HCM Lane LOS B A A - A A - B					-			-					
HCM Lane LOS B A A - A A - B						-			-				
						-							
HCM 95th %tile Q(veh) 0.1 0.2 0.4													
	HCM 95th %tile Q(veh))	0.1	0.2	-	-	0	-	-	0.4			

Intersection		
Intersection Delay, s/veh	9.1	
Intersection LOS	Α	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		₩			4			₩			4	
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	Α			Α			Α			Α		

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	А	Α	Α	А	
HCM 95th-tile Q	8.0	0.3	0.5	1.3	

Intersection						
Intersection Delay, s/v Intersection LOS	eh40.3					
Intersection LOS	Е					

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach R	ightNB			SB			WB			EB			
Conflicting Lanes Right	1			1			1			1			
HCM Control Delay	16.8			24.1			24.8			68.1			
HCM LOS	С			С			С			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	С	С	С	F
HCM 95th-tile Q	5.1	2	4.9	14.4

Intersection												
Int Delay, s/veh	4.5											
										001		000
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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 N	Major1		1	Major2		ľ	Vinor1			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	- 0.22	6.12	5.52	- 0.22
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	-	_	_	, 0	_	-	950	844	-	986	869	-
Stage 2	-	-	-	_	-	-	986	869	-	950	812	-
Platoon blocked, %		_	_		_	-		50,				
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	_
- · · · · · · ·												
Annroach	ΓВ			MD			ND			CD		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			1.4			9.6			0		
HCM LOS							А			A		
Minor Lane/Major Mvm	ıt [VBLn1	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		Α	Α	Α	-	Α	Α	-	Α			
HCM 95th %tile Q(veh)		0.4	0	-	-	0	-	-	-			

Intersection						
Int Delay, s/veh	0.9					
		EDD	NDL	NDT	CDT	CDD
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	₩	0.5	00	4	↑	7
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
WWW. TOW	70	20	22	773	UTI	O-T
Major/Minor N	/linor2	- 1	Major1	Λ	/lajor2	
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	_	_	_	_	_
		3.318	2.218	_	_	_
Pot Cap-1 Maneuver	80	363	750	_	_	_
Stage 1	422	303	750		_	_
	349	-	-	-	-	-
Stage 2	349	-	-	-		
Platoon blocked, %	75	0.40	7.40	-	-	-
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	
			0.2		U	
HCM LOS	С					
Minor Lane/Major Mvm	t	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	А	C 1	-	-
HCM 95th %tile Q(veh)		0.1	-	1	-	-

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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W M	WDI	†	Holt	ODL	†
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	U	1.00	1.00	0
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	450	0	0	724
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	0.00	6.7	0.00	0.0	7.3
Incr Delay (d2), s/veh	3.9	0.0	0.7	0.0	0.0	0.5
	0.0					0.0
Initial Q Delay(d3),s/veh		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	В		A			A
Approach Vol, veh/h	578		456			724
Approach Delay, s/veh	12.1		6.9			7.8
Approach LOS	В		А			Α
Timer	1	2	3	4	5	6
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+l1), 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			А			

	•	→	•	•	←	•	•	†	<u></u>	<u> </u>	 	→
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4₽	7		4î.			र्स	7		4	7
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	0.0	0.36	0.51	0.0	1.00	0.18	0.0	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	В	C	0.0	D	D	0.0	C	D	0.0	C
Approach Vol, veh/h		886			716			456			538	
Approach Delay, s/veh		26.6			34.7			52.5			49.2	
Approach LOS		20.0 C			C			D			T7.2	
•			_				_					
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									

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FBI	FBT	WBT	WBR	SBI	SBR	
		, ,				
	1 00	1 00				
	7.0	20.7				
	1252	820				
<u> </u>					<u> </u>	
	D	C		D.		
1	2	3	4	5	6	7 8
	2		4	5	6	
	92.0		38.5	29.7	62.3	
	* 4.2		* 4.2	4.0	* 4.2	
	* 88		* 44	34.0	* 50	
	9.8		32.5	25.4	28.7	
	1.2		1.8	0.3	2.9	
		38.4				
		D				
					ases cros	
	88L 324 324 5 0 1.00 1.00 1863 324 1 1.00 2 350 0.20 1774 23.4 23.4 1.00 350 0.93 462 1.00 1.00 51.4 18.5 0.0 13.2 69.9 E	324 288 324 288 5 2 0 0 1.00 1.00 1.00 1.00 1863 1863 324 288 1 1 1.00 1.00 2 2 350 1253 0.20 0.67 1774 1863 324 288 1774 1863 324 7.8 23.4 7.8 1.00 350 1253 0.93 0.23 462 1253 1.00 1.00 1.00 1.00 1.00 51.4 8.3 18.5 0.4 0.0 0.0 13.2 4.1 69.9 8.7 E A 612 41.1 D 1 2 92.0 *4.2 *88 9.8	\$\begin{array}{c c c c c c c c c c c c c c c c c c c	\$\begin{array}{c c c c c c c c c c c c c c c c c c c	1	324 288 502 394 427 399 324 288 502 394 427 399 5 2 6 16 7 14 0 0 0 0 0 0 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1863 1863 1863 1863 1863 324 288 502 394 427 399 1<

Cumulative+P PM.syn Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			र्स	7		4î		7	ተኈ	
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	Е			D		В	Е		Е	С	А	Α
Approach Vol, veh/h		139			252			792			1091	
Approach Delay, s/veh		62.6			27.8			63.6			9.2	
Approach LOS		E			С			E			А	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	<u> </u>	2	J	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 (q_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			33.5 C									
Notes												
* HCM 2010 computational end	nine rea	uires eaus	al clearan	ce times	for the nh	ases cros	ssina the	harrier				
110W 2010 computational crig	gine req	an os eque	ai Giodi di i	55 111103	or the pri	4303 6100	Jonny tine	varrior.				

Cumulative+P PM.syn Hexagon

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Marraman		→	WDT		-	4	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	١٦	↑ ↑↑	^	220	ነ	777	
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	J.4	23.4	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	Α	С	D	D	В	
Approach Vol, veh/h		1653	1783		996		
Approach Delay, s/veh		18.9	36.7		21.6		
Approach LOS		В	D		С		
Timer	1	2	3	4	5	6	
Assigned Phs	1	2				6	
Phs Duration (G+Y+Rc), s	19.7	30.3				50.0	
Change Period (Y+Rc), s	4.0	4.0				4.0	
Max Green Setting (Gmax), s	16.0	26.0				46.0	
Max Q Clear Time (g_c+l1), s	15.6	25.6				7.4	
Green Ext Time (p_c), s	0.2	0.4				7.9	
Intersection Summary							
HCM 2010 Ctrl Delay			26.7				
HCM 2010 LOS			С				

	•	→	•	•	—	•	•	†	<i>></i>	\	↓	-√
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	र्स	7	ň	f.		ħ	† †	7	ħ	† †	7
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	8.0	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	В	A	E	В	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			Е			В	
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 (q_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 balanci	ing amor	g the land	es for turr	nina move	ement.							

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	†	7	Ŋ	1>			4	7			
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	С	В	В	С		Α	В		В	В		
Approach Vol, veh/h		528			525			478			212	
Approach Delay, s/veh		14.0			13.2			13.4			12.5	
Approach LOS		В			В			В			В	
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 HCM 2010 LOS			13.4 B									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	∱ 1≽		ሻ	†	7	ሻ	ተተ _ጉ		ň	† †	7
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(q_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	20.2	0.00	1.00		1.00	1.00		0.22	1.00	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	0.0	F	0.0	F	F	F	F	F	F	F	D	0.0
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					7					
9	1		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			105 -									
HCM 2010 Ctrl Delay			122.9									
HCM 2010 LOS			F									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	75	ተ ኈ		1/4	†	7	7	† †	7	الوالو	^	7
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	С	F	D	В	E	F	В
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		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												

	•	•	†	<i>></i>	\		
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	ሻሻ	77	† †			† †	
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	<u> </u>	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	0.00	0.00	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	0.440	0.00	0.00	0.4.40	
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	С	С	В			А	
Approach Vol, veh/h	804		2269			869	
Approach Delay, s/veh	30.7		14.6			5.5	
Approach LOS	С		В			Α	
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+l1), s		46.3				10.1	14.0
Green Ext Time (p_c), s		0.4				7.4	2.5
		0.4				7.4	2.3
Intersection Summary			15.0				
HCM 2010 Ctrl Delay			15.9				
HCM 2010 LOS			В				

	•		•	<u>†</u>	1	4
Movement	EBL	▼	NBL		▼	CDD
Movement Lang Configurations	FBL	EBR *	INRL	NBT ↑↑	SBT ↑↑	SBR
Lane Configurations			0			0
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	0.00	3725	3725	0.00
	1567	401	0	984	947	0
Grp Volume(v), veh/h						
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
			0.0			0.0
LnGrp LOS	C	В		C	A	
Approach Vol, veh/h	1968			984	947	
Approach Delay, s/veh	24.4			22.1	7.2	
Approach LOS	С			С	Α	
Timer	1	2	3	4	5	6
Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		36.7		43.3		36.7
Change Period (Y+Rc), s		4.1		43.3		4.1
Max Green Setting (Gmax), s		28.9		4.1		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			В			

Intersection														
Intersection Delay, s/v	eh14.2													
Intersection LOS	В													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations		414			414			4			4			
Tueffie Mal	/ F	455	70	ГГ	214	٦F	47	/0	/7	4.4	00	21		

MOVERNORM	LDL	LDI	LDI	VVDL	WDI	WDI	INDL	1101	INDIX	ODL	001	ODIN	
Lane Configurations		414			414			4			4		
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 L	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			2			2			
Conflicting Approach R	ighNB			SB			WB			EB			
Conflicting Lanes Right	t 1			1			2			2			
HCM Control Delay	15.6			13.3			12.9			12.6			
HCM LOS	С			В			В			В			

Lane	NBLn1	EBLn1	EBLn2V	VBLn1V	VBLn2	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	В	С	С	В	В	В			
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		414			414			4			4	
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 N	1ajor1		N	Major2		N	Minor1		Λ	/linor2		
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			0.134	-	_	0.027	_	_	0.71			
HCM Control Delay (s)		35.4	10.1	1.1	_	10	0.2	_	64.1			
HCM Lane LOS		55.4 E	В	A	_	A	Α	_	F			
HCM 95th %tile Q(veh)		0.6	0.5	-	-	0.1	-	_	4.4			
		0.0	0.0			J. 1			1. 1			

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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		ı	Major2			Minor1		ı	Minor2		
Conflicting Flow All	111	0	0	100	0	0	222	225	95	233	230	111
Stage 1	- 111	-	U	100	-	-	96	96	95	128	128	- 111
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	4.12	_		4.12	-	-	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 2		-	_	_	-		6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-		2.218	_	-	3.518		3.318	3.518	4.018	
Pot Cap-1 Maneuver	1479	_		1493	_	_	734	674	962	722	670	942
Stage 1	- 1 (7 /	_	_	- 1170	_	_	911	815	702	876	790	- /
Stage 2	_	_	_	_	_	-	878	789	_	901	811	-
Platoon blocked, %		_	_		_	_	010	107		701	011	
Mov Cap-1 Maneuver	1474	_	_	1492	_	-	728	667	960	702	663	938
Mov Cap-2 Maneuver	-	_	_	- 1 1 / 2	_	_	728	667	-	702	663	-
Stage 1	-	_	_	-	-	-	909	813	-	872	783	-
Stage 2	-	_	_	_	_	_	871	782	_	882	809	-
Stago Z							371	, 02		302	307	
	FF) A / E			NE			0.5		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.6			9.6			10		
HCM LOS							Α			В		
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		816			_	1492			733			
HCM Lane V/C Ratio		0.042		_		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	-	В			
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0			
	,											

Note Note
Movement
Traffic Vol, veh/h
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 Stop Sto
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 Free Stop
Conflicting Peds, #/hr 2 0 2 2 0 2 1 0 1 1 0 1 Sign Control Free Free Free Free Free Free Free Stop RT Channelized - None - - None - - None - - None - - 0 - - 0 - - 0 - - 0 - - 0 -
Sign Control Free Free Free Free Free Free Free Free Stop
RT Channelized - None - None - None - None Storage Length -
Storage Length - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - 2
Veh in Median Storage, # - 0
Grade, % - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 0 100
Peak Hour Factor 100 20 20 20 <
Heavy Vehicles, % 2 3 3 8 4 7 11 6 7 11 8 10 2 2 16 17 17 54 183 169 76 16 16 18 <
Mvmt Flow 8 47 7 11 67 11 19 16 21 6 37 8 Major/Minor Major1 Major2 Minor1 Minor2 Minor2 Minor2 Minor3 Minor3 Minor3 Minor4 Minor3 Minor4 Minor3 Minor4 Minor3 Minor4 Minor3 Minor4 Minor4 Minor4 Minor3 Minor4 Minor3 Minor4 Minor3 Minor4 Minor4 </td
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 -
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 -
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 -
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 -
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 -
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 -
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 -
Critical Hdwy Stg 1 6.12 5.52 - 6.12 5.52 - Critical Hdwy Stg 2 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 Long Major Muset NDI n1 FDI FDT FDD MIDL MIDT MIDD CDI n1
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 SB
Lane Configurations \clubsuit \clubsuit
Traffic Vol, veh/h 1 54 2 15 64 2 8 13 15 1 4
Future Vol, veh/h 1 54 2 15 64 2 8 13 15 1 4
Conflicting Peds, #/hr 1 0 0 0 0 1 1 0 2 2 0
Sign Control Free Free Free Free Free Stop Stop Stop Stop Stop Stop Stop Stop
RT Channelized None None None
Storage Length
Veh in Median Storage, # - 0 0 0
Grade, % - 0 0 0
Peak Hour Factor 100 100 100 100 100 100 100 100 100 10
Heavy Vehicles, % 2 2 2 2 2 2 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
Major/Minor Major1 Major2 Minor1 Minor2
Conflicting Flow All 67 0 0 56 0 0 158 154 57 169 154 6
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 6.2
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 3.31
Pot Cap-1 Maneuver 1535 1549 808 738 1009 795 738 99
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 99
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
HOW EGG 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

Intersection						
Int Delay, s/veh	3.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<u>₽</u>	LDIN	WDL	₩ <u>₩</u>	M	NDIX
Traffic Vol, veh/h	66	٥	21			Ε./
		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
WWW.CTIOW	00	U	21	17	J	01
Major/Minor M	lajor1	ľ	Major2		Vinor1	
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	-	_	7.12	_	5.42	-
	-			-	5.42	
Critical Hdwy Stg 2	-	-	2.218			2 210
Follow-up Hdwy	-	-		-	3.518	
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	_
5.ago 2					,00	
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.2		8.9	
HCM LOS					Α	
NA'		IDI 4	EDT.	EDD	MDI	MPT
Minor Lane/Major Mvmt	<u> </u>	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		Α	-	-	Α	Α
HCM 95th %tile Q(veh)		0.2	-	-	0	-
		J.E				

Intersection												
Int Delay, s/veh	3.4											
		EDT	EDD.	MDI	MOT	14/00	NDI	NDT	NDD	001	ODT	000
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4		_	4	_		4			4	
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 N	Major1			Major2			Vinor1			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	-
<u> </u>												
Approach	EB			WB			NB			SB		
HCM LOS	2.9			0.4			10 B			9.1		
HCM LOS							B			A		
Minor Lane/Major Mvm	nt	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		В	Α	Α	-	Α	Α	-	Α			
HCM 95th %tile Q(veh))	0	0.1	-	-	0	-	-	0.2			

County of San Mateo - Planning and Building Department

PLACHMENT

COUNTY OF SAN MATEO PLANNING AND BUILDING

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.



455 County Center, 2nd Floor

Redwood City, CA 94063

www.planning.smcgov.org

650-599-7310 T

PROJECTELLE

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

Adopted By: Planning Commission

Project Planner

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.

- 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. <u>Mitigation Measure 1</u>: 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. <u>Mitigation Measure 2</u>: All staff members who drive to the school shall be required to park in the school's on-site parking lot.
- 13. <u>Mitigation Measure 3</u>: 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. <u>Mitigation Measure 4</u>: 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. <u>Mitigation Measure 5</u>: 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 <u>and picked up</u> 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. <u>Mitigation Measure 7</u>: The applicant shall <u>apply for an encroachment permit to</u> install a left-turn refuge lane on Marsh Road, within the current roadway width, to improve the intersection operation. <u>Plans shall be submitted to the Department of Public Works</u>
 Traffic Services for review and approval.
- 18. <u>Mitigation Measure 8</u>: 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. <u>Mitigation Measure 9</u>: 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

PLACHMENT

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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1001 LAUREL STREET, SUITE A SAN CARLOS, CALIFORNIA 94070 PHONE: 650-593-3117 FAX: 650-453-3911 www.adcl.com MICHAEL AARONSON (1910-1998) 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:

Building	Use	Measuring Units	Parking Factor	Required Spaces
	Office Areas	269 sq. ft.	1 / 200 sq. ft.	2
3345 Edison Way	Classrooms	2	1 / classroom	2
SO TO Edison Way	Extended Classroom/Lab Space	13,002 sq. ft.	1 / 2,000 sq. ft.	7
	Subtot	al:		11
	Office Areas	1,641 sq. ft.	1 / 200 sq. ft.	8
	Classrooms	4	1 / classroom	4
3355 Edison Way	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
	Subtot	al:		65
	Office Areas	1,159 sq. ft.	1 / 200 sq. ft.	6
	Classrooms	19	1 / classroom	19
3375 Edison Way	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
	Subtot	al:	•	35
	Office Areas	1,913 sq. ft.	1 / 200 sq. ft.	10
3425 Edison Way	Classrooms	9	1 / classroom	9
	Multi-Use Space	1,340 sq. ft.	1 / 100 sq. ft.	14
	33			
Total Parking Req	144			
Total Parking Provi	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.

ΑII	Use	s N	ot En	umer	ate	ed Al	oove
Wh	iich	Are	Perm	itted	in	"M"	
Dis	tric	ts					

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. County Parking Calculations – Proposed Use Permit Amendment

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:

(MIXED-USE INDUSTRIAL/EDISON/ NORTH FAIR OAKS DISTRICT)

SECTION 6277.7. PARKING. 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.

 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 offstreet 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.	INS	TITUTIONAL AND OTHER	<u> </u>
	1.	All uses listed under the "Institutional Use Classification" in Section 6576.3, Uses	1 space per 400 sq. ft.
	0	A I 4!44! I O4! I I	4 4 000 #

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.

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. <u>Hexagon Parking Demand Study</u>

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 preschool 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. Conclusion

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

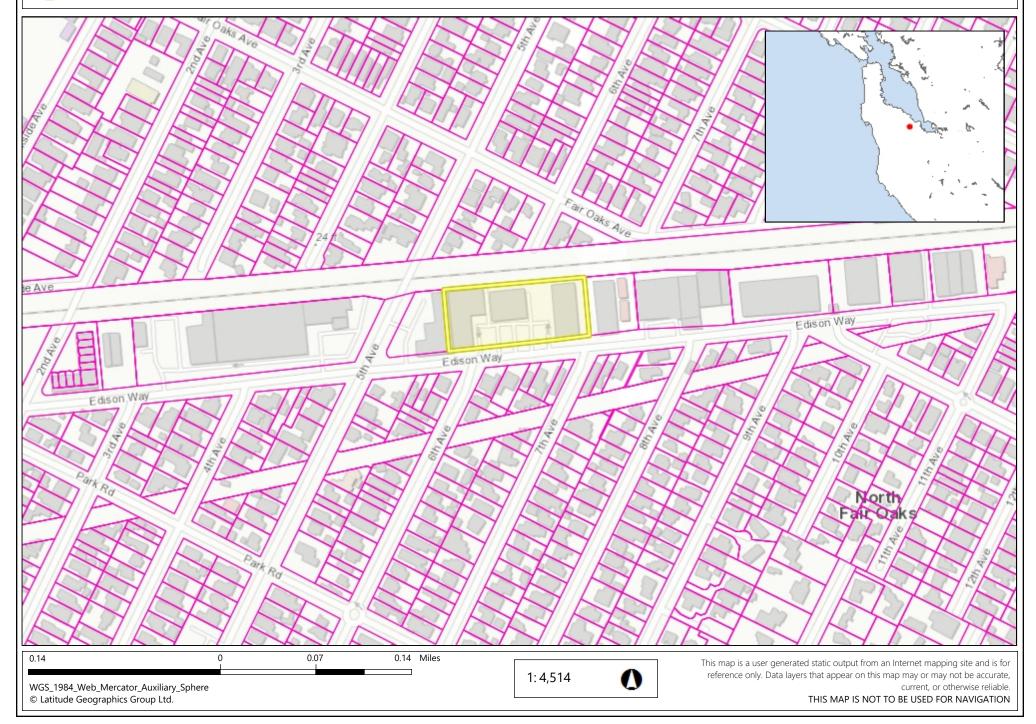
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County of San Mateo - Planning and Building Department

PLACHMENT



County San Mateo, CA



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County San Mateo, CA

current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION



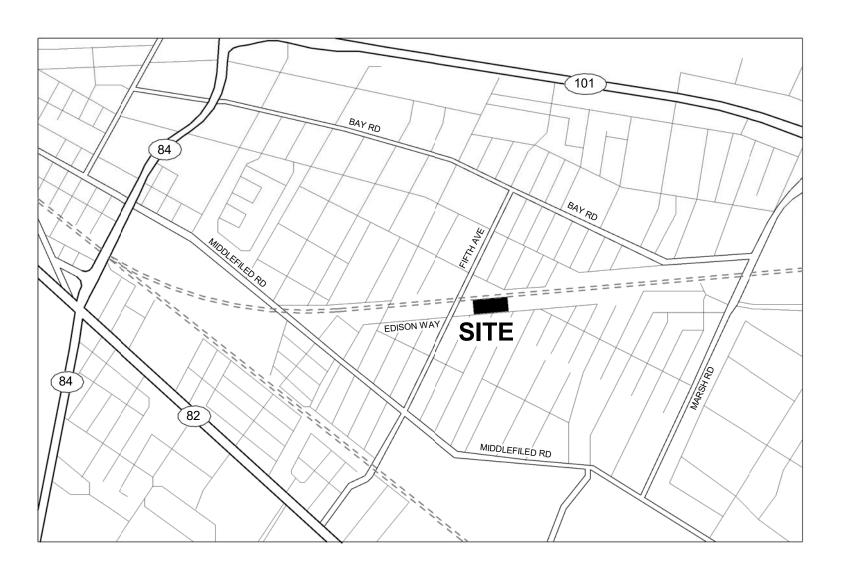
County of San Mateo - Planning and Building Department

U PLACHMENT

SYNAPSE SCHOOL RENOVATION

3375 EDISON WAY, MENLO PARK USE PERMIT AMENDMENT APPLICATION





1 LOCATION MAP

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

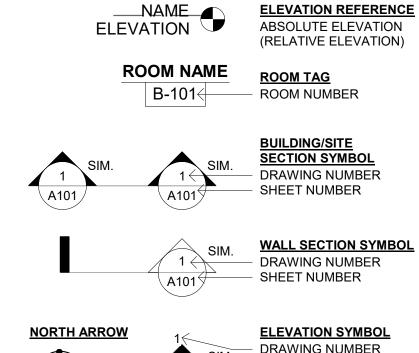
[BUILDING 3]
- CONSTRUCTION OF NEW INTERIOR WALLS AND DOORS TO CREATE PRE-KINDERGARTEN CLASSROOMS

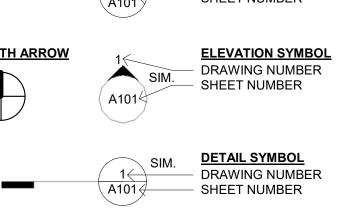
PROJECT LOCATION 3375 EDISON WAY

SYMBOLS

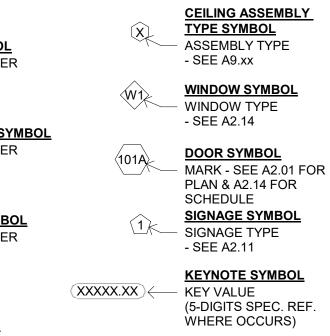
3375 EDISON WAY MENLO PARK, CA 94025

BUILDING INFORMATION





EQUIPMENT TYPE



SIGNAGE SYMBOL
SIGNAGE TYPE
- SEE A2.11

KEYNOTE SYMBOL
KEY VALUE
(5-DIGITS SPEC. REF.
WHERE OCCURS)

FINISH SYMBOL
FINISH CODE - SEE A2.11

FLOOR FINISH SYMBOL

FINISH CODE - SEE A2.11

PARTITION TYPE SYMBOL

STUD MARK - SEE A9.01

SEE A9.01

PARTITION CATEGORY - SEE

DETAIL NUMBER - SEE A9.01

- 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
- ALL MATERIALS TO BE INSTALLED ARE TO BE NEW. DO NOT REUSE REMOVED OR OTHERWISE DEMOLISHED MATERIALS UNLESS DIRECTED BY THE
- DIMENSIONS ARE TO FACE OF GWB OR GRID, U.O.N. GRID LINES CORRESPOND TO CENTER OF STUD OR COLUMN, U.O.N.

GENERAL NOTES



555 DeHaro Street, Suite 380

+ INTERIORS

- San Francisco, CA 94107 tel 415.487.6900
- fax **415.487.6909**

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

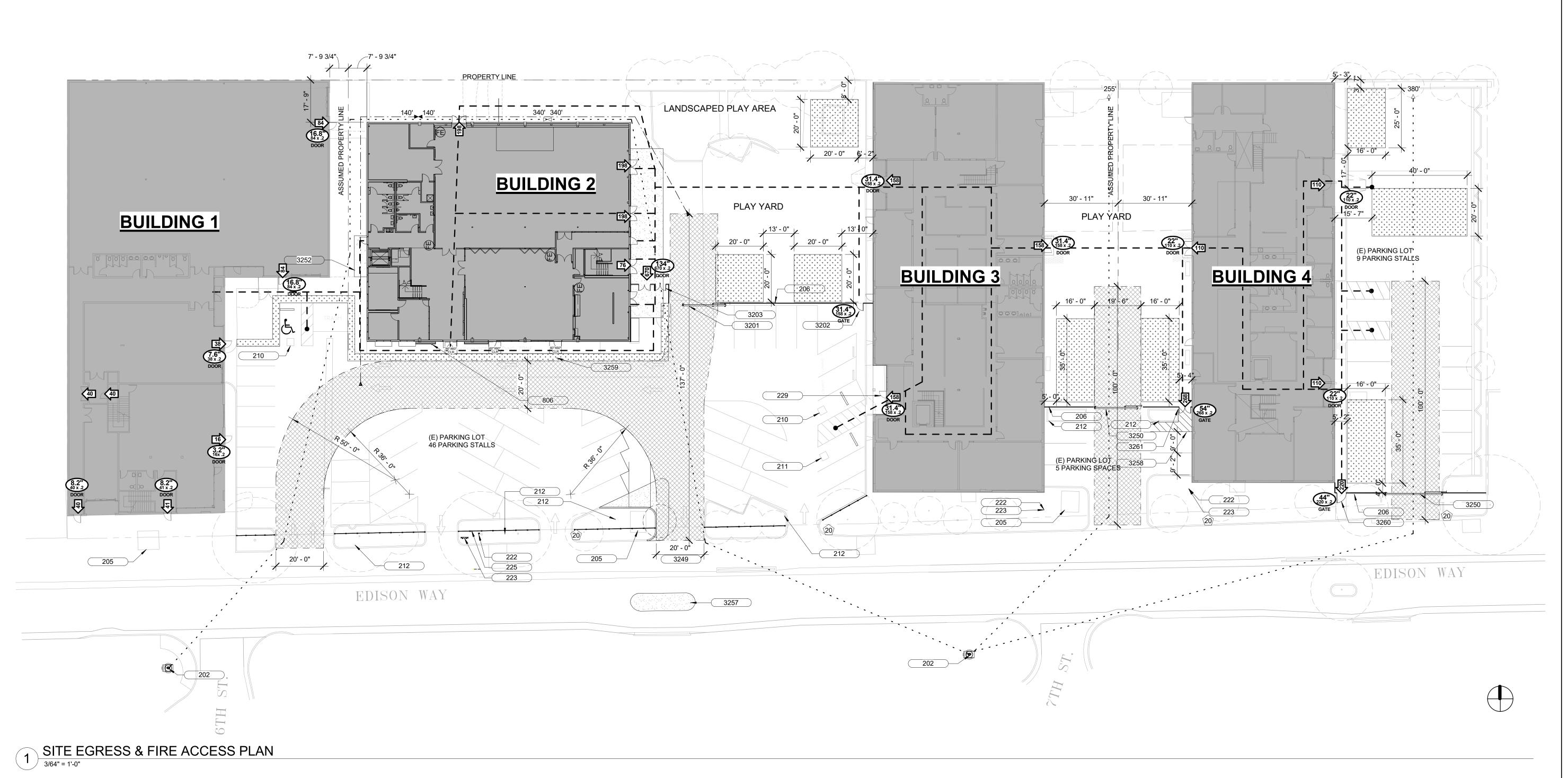
Date: 4/21/2021

Status: USE PERMIT APPL.

Project Number:

■ Sheet

A01





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■ Client

SYNAPSE SCHOOL

■ Project Name SYNAPSE SCHOOL RENOVATION

3355 EDISON WAY, MENLO PARK CA 94025

Consultants

Sheet Name

SITE EGRESS & FIRE **ACCESS PLAN**

SHEET NOTES KEYNOTE VALUE DESCRIPTION PARKING DEMAND SUMMARY (E) FIRE HYDRANT Parking demand as observed by Hexagon in November 2019: 37 - 50 stalls Student enrollment in 2019: 260 students (E) TRANSFORMER Revised student enrollment capacity: 310 students (19.2% increase) (E) CHAIN LINK FENCE Parking demand for revised student enrollment capacity: 44 - 60 stalls (E) VAN ACCESSIBLE PARKING SPACE (E) ACCESIBLE PARKING PARKING PROPOSED Building 1 & 2 parking lot: 46 stalls (E) PLANTER W 6" CURB Building 3 parking lot: 5 stalls (E) PIV Building 4 parking lot: 9 stalls (E) FDC Total parking stalls proposed: 60 stalls (E) CHECK VALVE (E) MAIN ACCESS/ ENTRANCE TO CAMPUS. EMERGENCY ACCESS KEY LOCK BOX, KNOX OR OTHER FIRE DEPARTMENT APPRO VERIFY LOCATION WITH FIRE MARSHAL 20" CLEAR WIDTH SLIDING CHAINLINK FIRE ACCESSS GATE W/ FD APPROVED LOCK / 3'-0" ACCESSIBLE CHAIN LINK GATE. PANIC HARDWARE. 6'-0" ACCESSIBLE CHAIN LINK GATE. PANIC HARDWARE. (N) 20'-0" MIN CLR FIRE ACCESS (E) CHAIN LINK SLIDING GATE (N) ELEVATED WALKWAY, S.C.D. (N) AC PAVING WHERE CONCRETE CURB AND PLANTER HAVE BEEN REMOVED IN F PARKING DEMAND SUMMARY (N) PAVEMENT STRIPING

(N) TRUNCATED DOME WARNING STRIP. 3'-0" MIN.

(N) 4'-0" ACCESSIBLE CHAIN LINK GATE. PANIC HARDWARE

(N) 5'-0" ACCESSIBLE CHAIN LINK GATE. PANIC HARDWARE

		FIRE HYDRANTS
	<+400'	DISTANCE FROM HYDR BUILDING PERIMETER; CFC 507.5.1
	▼ - 150'	HOSE DISTANCE FROM ACCESS ROAD OR LAN BUILDING PERIMETER; CFC 503.1.1
OVED EQUAL. K AND KNOX BOX.	(50	OCCUPANT LOAD AT POPATH
PUBLIC RIGHT OF	(XX') 99 x 2	MIN. EGRESS WIDTH: 32" MIN. @ DOORS 72" MIN. @ CORRID EGRESS WIDTH FACTO STAIRWAYS & (.2) AT O
		COMPONENTS OCCUPANT LOAD AT

LEGEND PROPERTY LINE FIRE HYDRANTS DISTANCE FROM HYDRANT TO - BUILDING PERIMETER; 600' MAX., CFC 507.5.1 CLR. CFC 503.2.1. HOSE DISTANCE FROM FIRE ACCESS ROAD OR LANE TO BUILDING PERIMETER;150' MAX., CFC 503.1.1 OCCUPANT LOAD AT POINT OF EGRESS PATH

32" MIN. @ DOORS (CBC 1010.1.1) 72" MIN. @ CORRIDORS (CBC 1020.2)

EGRESS WIDTH FACTOR: (.3) FOR

POINT OF EGRESS PATH

STAIRWAYS & (.2) AT OTHER EGRESS

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 ENTRANCE SIGN "B", PER THE MENLO PARK FIRE PROTECTION DISTRICT APPROVED FIRE LANE

ACCESSIBLE CLEARANCE - DIMENSIONS AS INDICATED . 2% MAX SLOPE ANY

(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: <u>3</u>
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.

Revisions

Revision 1

Revison 2

■ Sheet Information

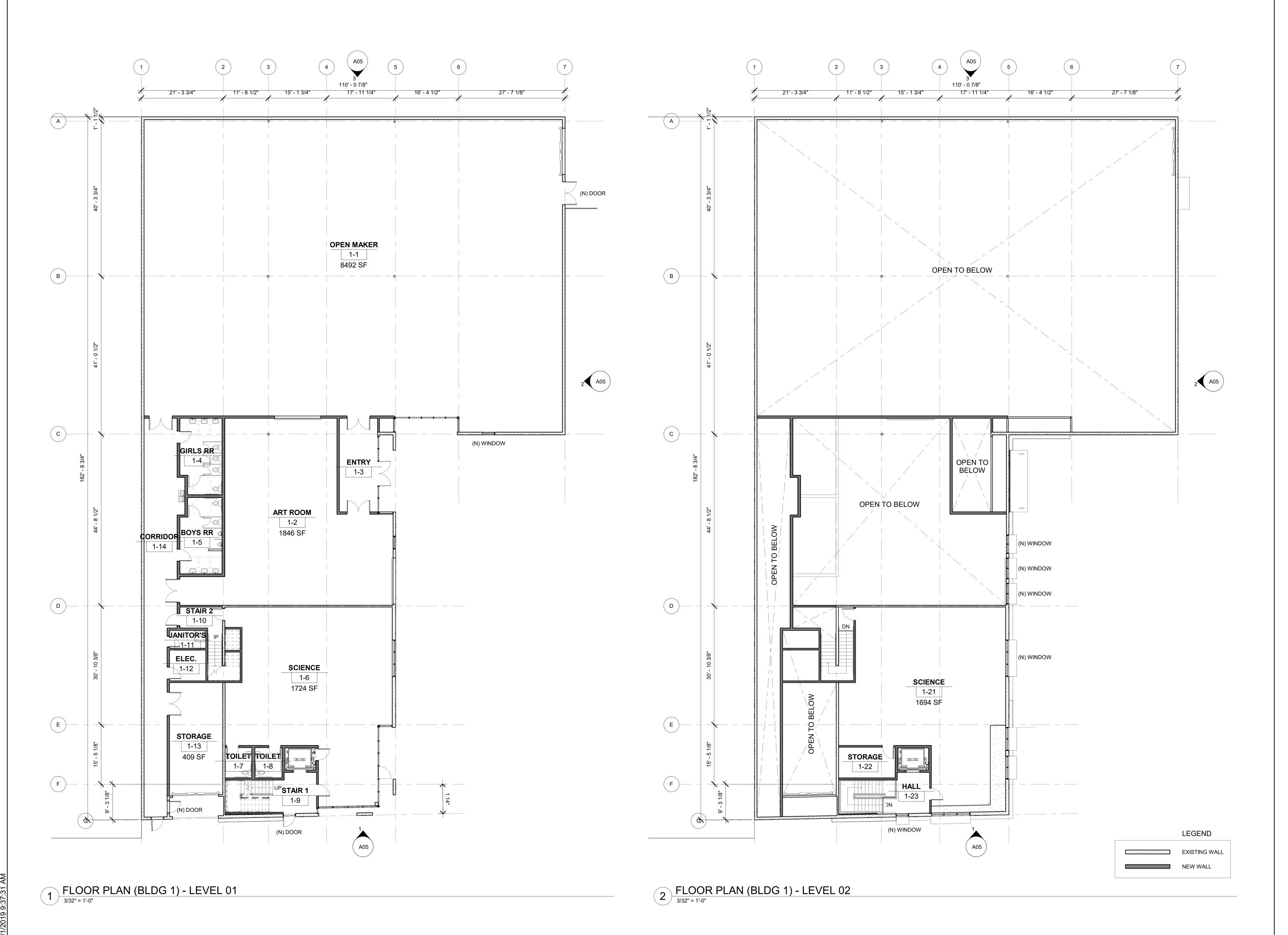
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■ Project Information 4/21/2021 Status: USE PERMIT APPL Project Number:

6/8/2020

10/22/2020

Sheet





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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

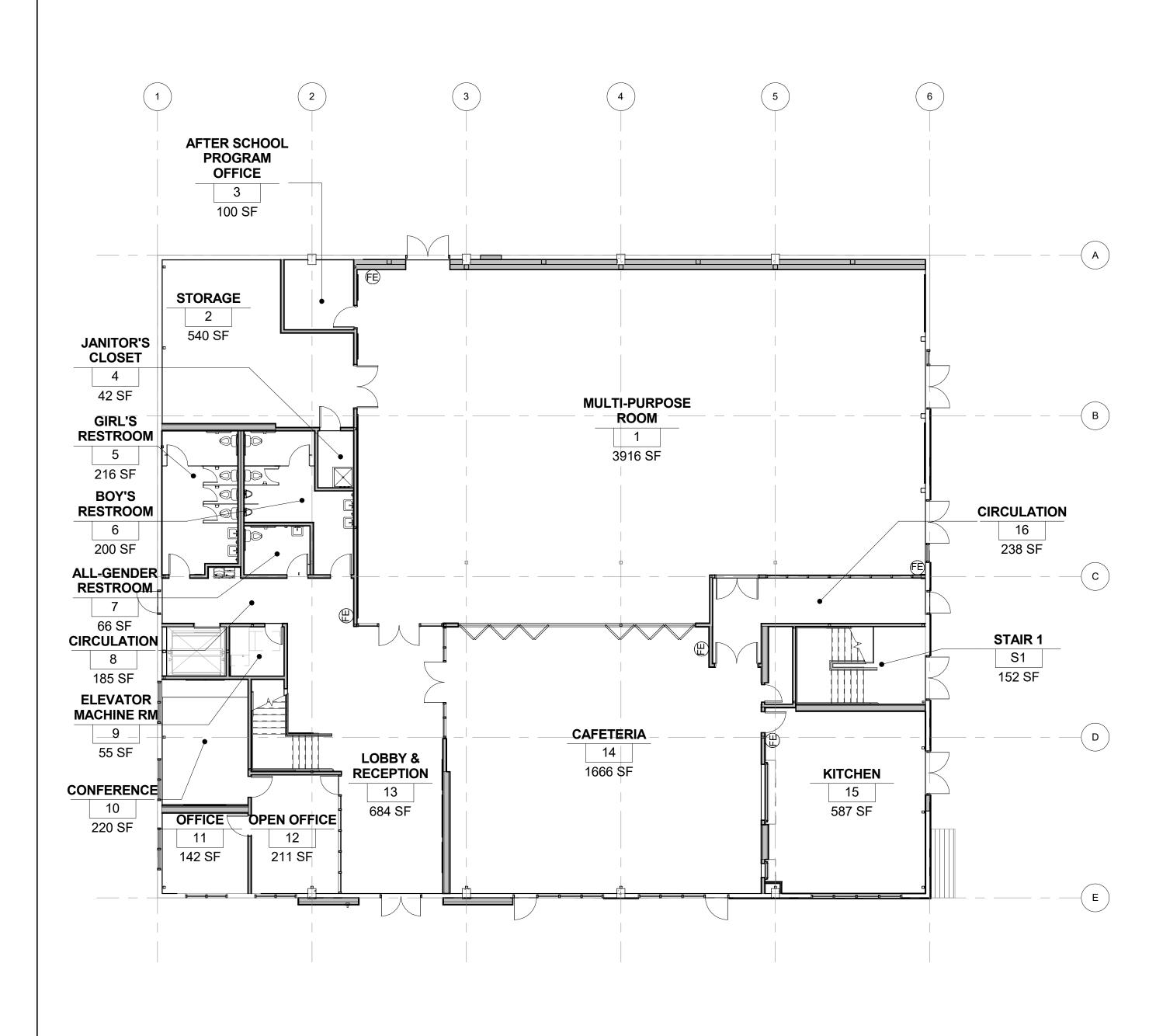
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■ Project Information
Date:

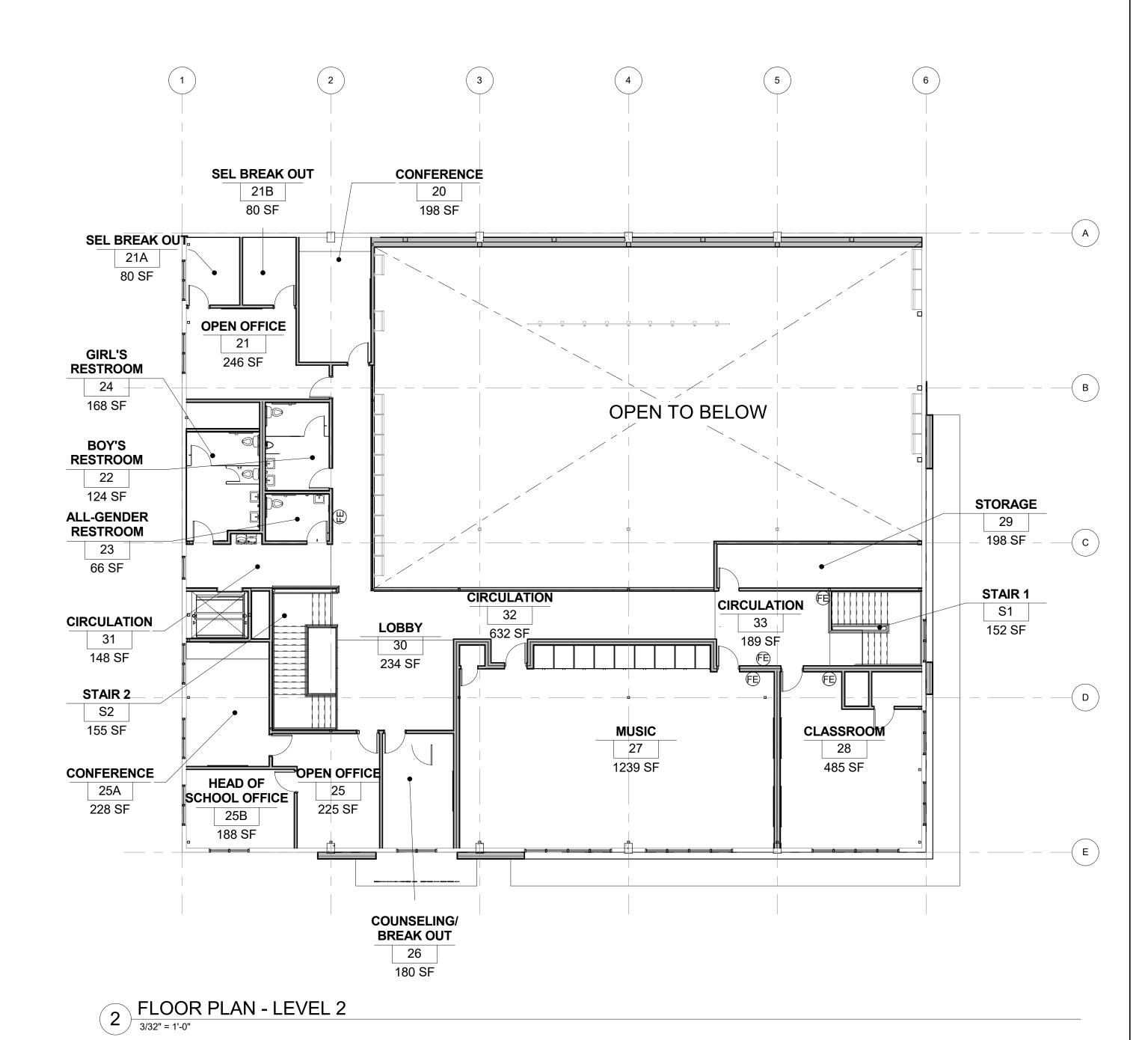
Date: 4/21/2021
Status: USE PERMIT APPL.
Project Number: 1902

Sheet

A03



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



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ARCHITECTURE

+ INTERIORS

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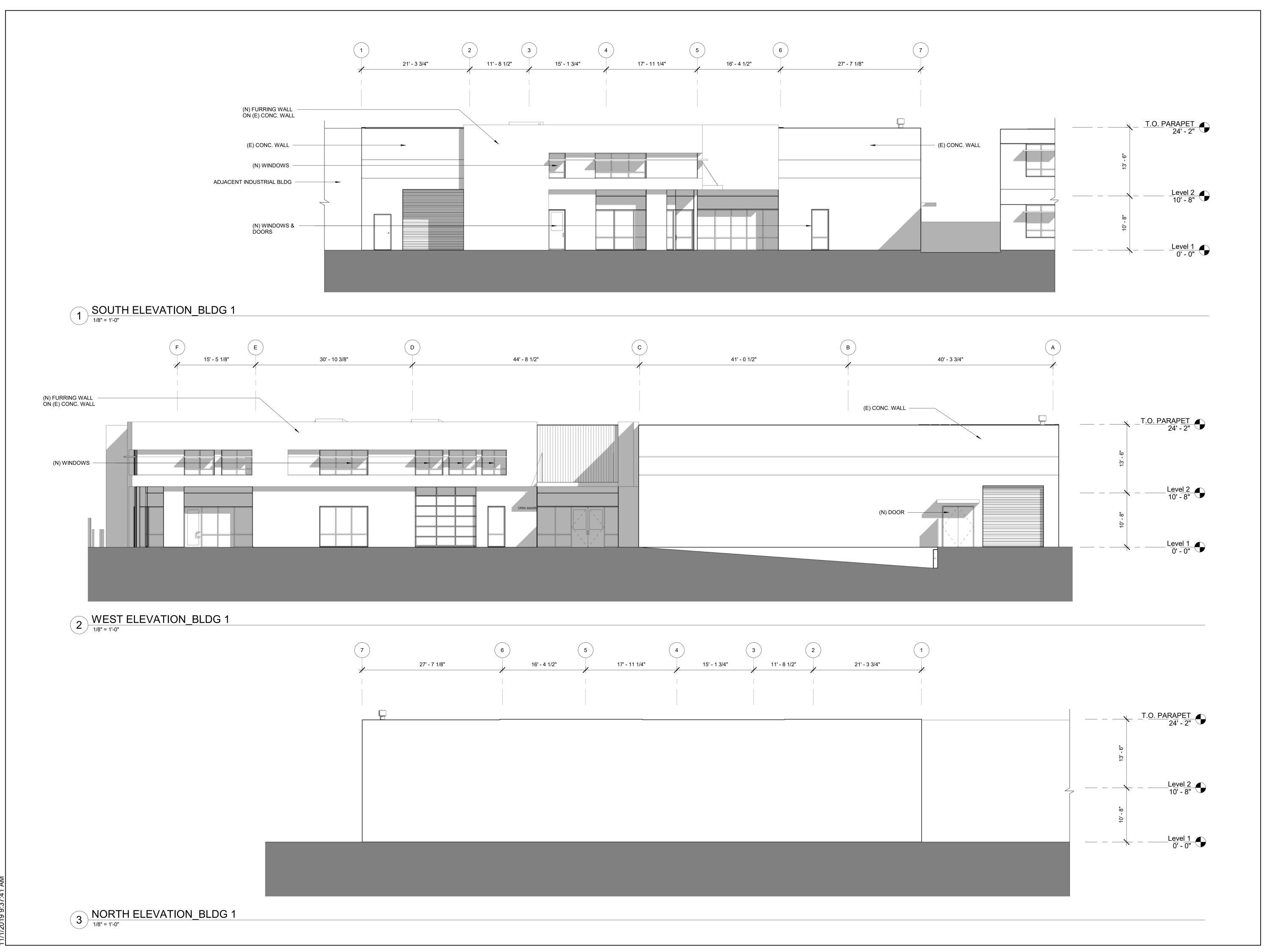
■ Project Information
Date: 1/30/2020
Status: USE PERMIT APPL.

Project Number:

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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

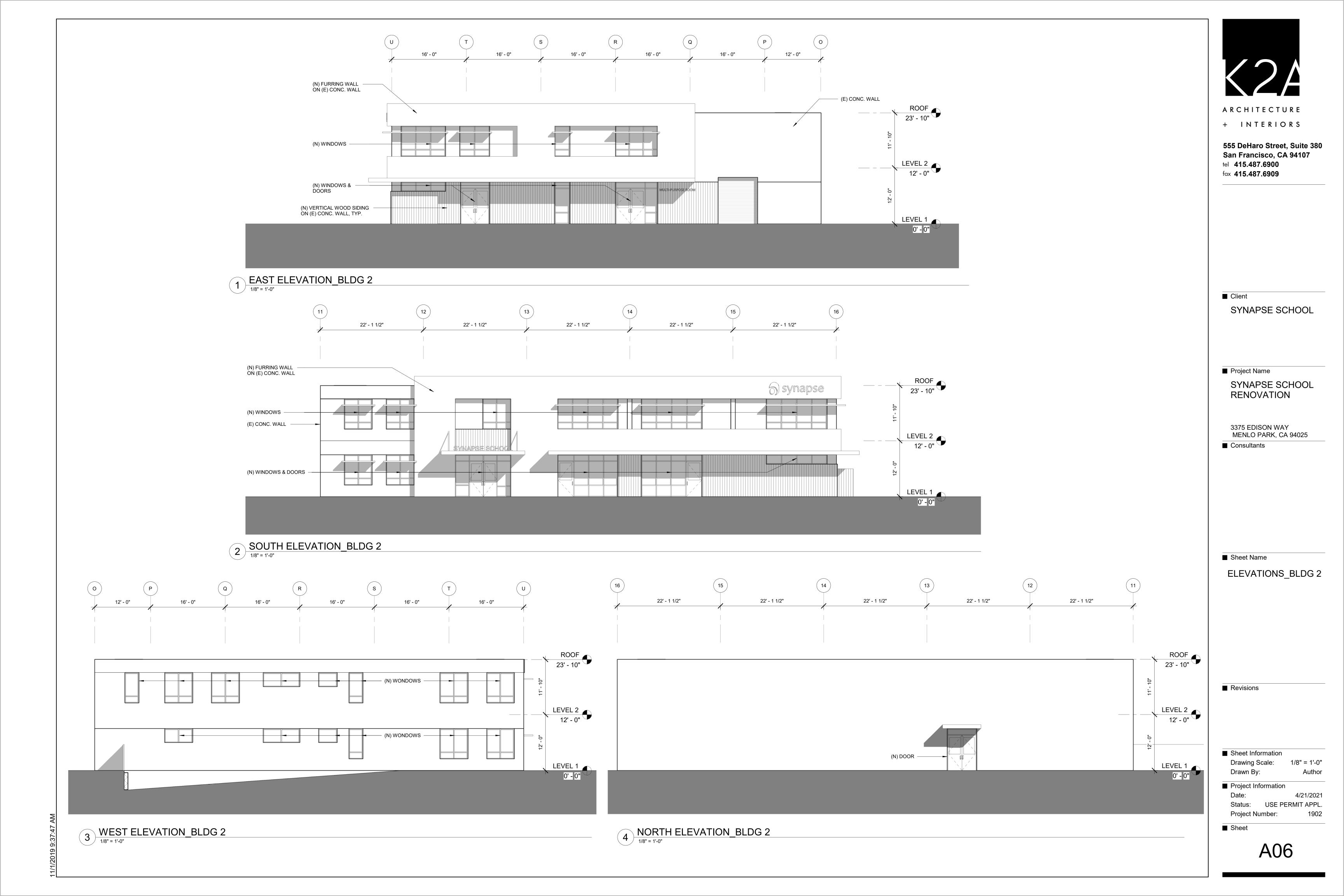
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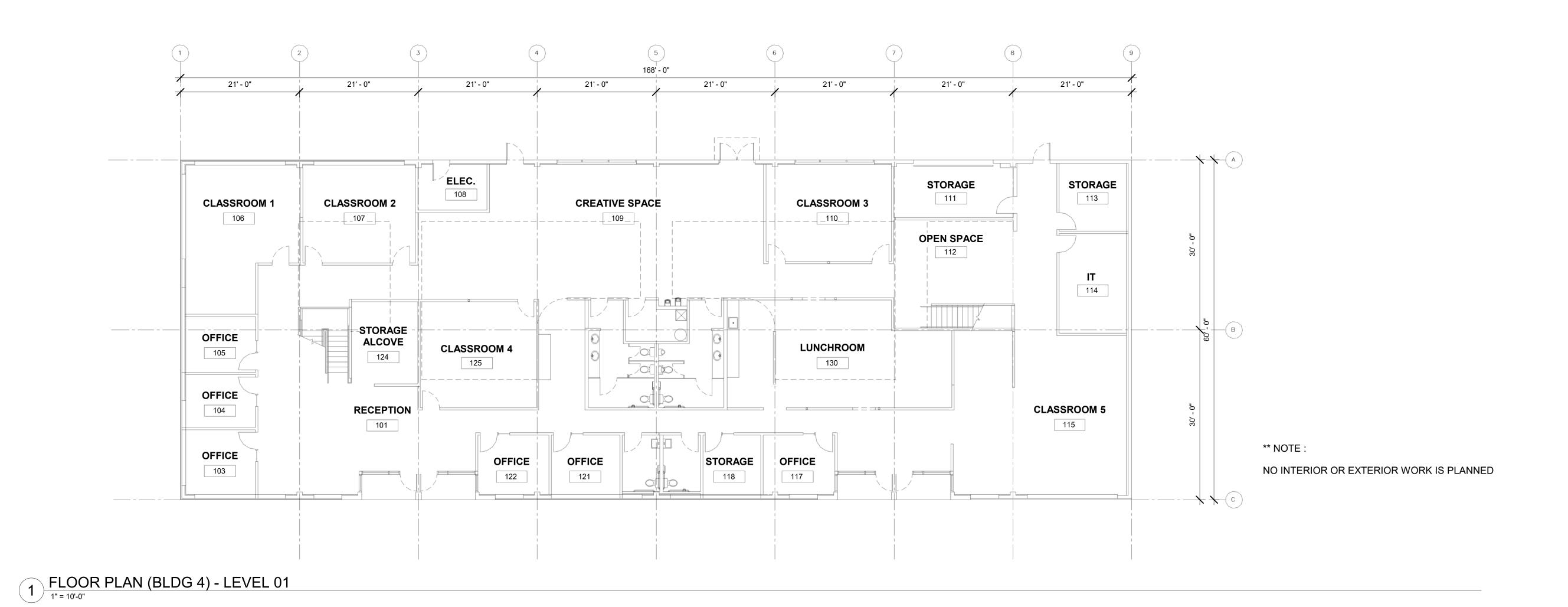
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 Project Number: 1902

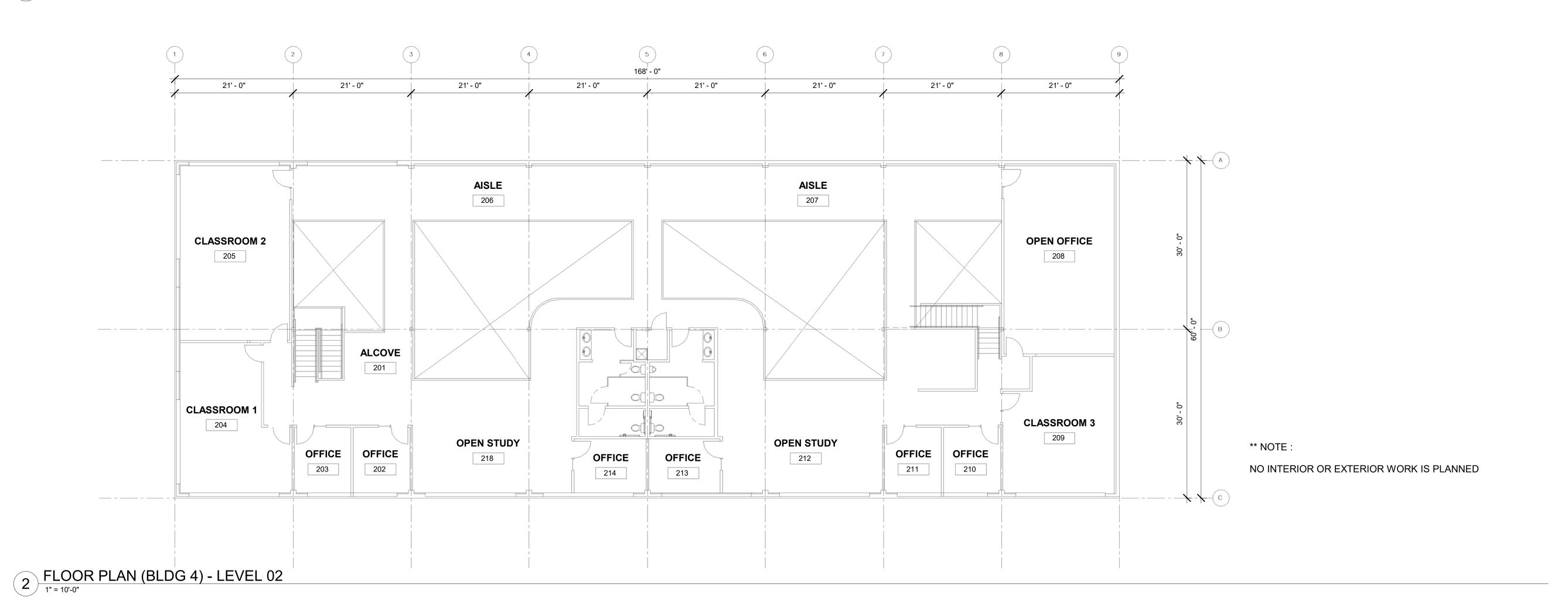
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A05









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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 InformationDrawing Scale: 1"

Drawn By: Author

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

Project Number:

Sheet

80A

County of San Mateo - Planning and Building Department

PLACHMENT

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:

- 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;
 - 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 3 0 2017

OWNER: Anthony and Johnny Zanette; 3355 Edison Partners

APPLICANT: Synapse School, Attention: Karen McCown

POSTING

BESZ DE LA VEGA

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:

<u>Mitigation Measure 1:</u> 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.

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

<u>Mitigation Measure 3:</u> 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.

<u>Mitigation Measure 4:</u> 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. Noncompliance evidenced by the subsequent monitoring may also result in review of the use permit by the Planning Commission.

<u>Mitigation Measure 5:</u> 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.

<u>Mitigation Measure 6:</u> 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.

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

<u>Mitigation Measure 8:</u> 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.

<u>Mitigation Measure 9:</u> 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

SSB:jlh – SSBBB0135_WJH.DOCX FRM00013(click).docx (2/2015)

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 facade 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
Χ	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 onsite, 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?				Х	

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		X
	resources, including, but not limited to,		
	trees, rock outcroppings, and historic		
	buildings within a state scenic highway?		

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.

c c r	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.								
C	Create a new source of significant light or glare that would adversely affect day or nighttime views in the area?		,	Х				
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.								
F	Be adjacent to a designated Scenic Highway or within a State or County Scenic Corridor?				Х			
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.								
٧	f 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.								
-	/isually intrude into an area having natural scenic qualities?				Х			
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		
urban	ssion: The project site is located in a light in a area and therefore does not involve farmlar e: Project Location; County of San Mateo,	ıd.	d district of the	e densely dev	eloped		
2.b.	Conflict with existing zoning for agricultural use, an existing Open Space Easement, or a Williamson Act contract?				Х		
urban contra		red by an oper					
Sourc	e: Project Location; County of San Mateo, 2	Zoning Iviap.					
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		
Discus	ssion: The project site is located in a light i	ndustrial zone	d district of the	e densely deve	eloped		

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		
	ussion: The project site is not located within ce: Project Location; County of San Mateo,		one.				
2.e.	Result in damage to soil capability or loss of agricultural land?				Х		
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.							
Sour	rce: Project Plans.						

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?			Х	

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	Χ	
	contribute significantly to an existing or projected air quality violation?		
	projected all quality violation:		

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 1999¹ 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:

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

¹Thresholds 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.

or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	(including releasing emissions which exceed quantitative thresholds for ozone	X		
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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	
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²On 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 redesignation.

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
	72		E

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?		
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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?				Х	

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. X Have a significant adverse effect on any 4.b. 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? 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. X Have a significant adverse effect on 4.C. 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? 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. X 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? 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)?				Х
Discussion: The project site is located in a den resources as the entire project parcels contain dedevelopment on the project parcels and does not source: Project Location; Project Plans.	evelopment. Th	he project prop	ooses to utilize	
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?				Х
Discussion: There are no adopted Habitat Consellans, or other approved local, regional, or State nearby vicinity.	habitat conser	vation plans fo	r the project s	ite or
Source: California Department of Fish and Wild Regional Conservation Plans Map.	ire, Habitat Col	nservation Pla	nning, Califori	าเล
4.g. Be located inside or within 200 feet of a marine or wildlife reserve?				Х
Discussion: The project is not located inside or	within 200 feet	of a marine o	r wildlife reser	ve.
Source: U.S. Fish and Wildlife Services, National	ıl Wildlife Refu	ge System Lo	cator.	
4.h. Result in loss of oak woodlands or other non-timber woodlands?				Х
Discussion: The project site does not support of the project site is located in a densely developed			mber woodlan	ds as
Source: Project Location; Project Plans.				

		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?				Х
propo Furtheregist Soure and Is	ussion: The project will not cause an adverses to utilize existing on-site development the ermore, the project sites and existing buildingers. ce: Project Location; Project Plans; San Massues, Chapter 5: Historical and Archaeologic Preservation.	nat was constr gs are not liste ateo County Ge	ucted within thed on any loca eneral Plan, O	ne last 25 year I or state histo verview Backo	s. prical ground
5.b.	Cause a significant adverse change in the significance of an archaeological resource pursuant to CEQA Section 15064.5?				Х
orojed Furth Sour e	ession: The project will not cause an adver of proposes to utilize existing on-site develop ermore, no new ground disturbance is neces ce: Project Location; Project Plans; San Ma ssues, Chapter 5: Historical and Archaeolog	oment that was ssary to impler ateo County Ge	s constructed venent or operateneral Plan, O	within the last e the propose	25 years d project
projed Furth Sour	et proposes to utilize existing on-site develor ermore, no new ground disturbance is neces ce: Project Location; Project Plans; San Ma	oment that was ssary to impler ateo County Ge	s constructed venent or operateneral Plan, O	within the last e the propose	25 years d project
Source and Is 5.c. Discu	ct proposes to utilize existing on-site development proposes to utilize existing on-site development of the property of the pr	oment that was ssary to impler ateo County Geoglical Resource reloped urban lag activities that	s constructed went or operateneral Plan, Oss.	within the last e the propose verview Backg	25 years d project ground X
Source and Is 5.c. Discu	ct proposes to utilize existing on-site development on new ground disturbance is necessarily project Location; Project Plans; San Massues, Chapter 5: Historical and Archaeolog Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? Ission: The project parcels are entirely developed to the project does not include any ground disturbing the project resource or site or unique geological resource or site	oment that was ssary to impler ateo County Geoglical Resource reloped urban lag activities that	s constructed went or operateneral Plan, Oss.	within the last e the propose verview Backg	25 years d project ground X

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	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. X iv. Landslides? 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. X 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). Discussion: The project site is not located on a coastal cliff or bluff. Source: Project Location. X Result in significant soil erosion or the 6 b loss of topsoil? 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. X Be located on a geologic unit or soil 6.c. 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? 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	X
	in the 2010 California Building Code,	
	creating significant risks to life or	
	property?	

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	=		Х
	supporting the use of septic tanks or alternative wastewater disposal systems			
	where sewers are not available for the disposal of wastewater?			

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
provid Energ Renev Susta the proffice, lab sp manda project vehicle	ession: The County of San Mateo's adopted les strategies for reducing GHG emissions to y Efficiency, Commercial and Industrial Enewable Energy, Transportation, Alternative Fulinable Agriculture Practices, Off-Road Technoject includes reuse of the existing buildings storage, and child recreation to uses in suppace, administrative offices). Building renovatory California Green Building Standards and proposes to continue and expand the use e miles traveled and to continue encouragin	o eleven areas ergy Efficiency, uels, Waste Div nology, and Se s by renovating oport of the sch ations will reque nd California E of school shutted g carpooling.	of focus including Green Building Version, Water equestration. On the food in the food in the food of	ding Resident of Ordinance, of Efficiency, of these categories former uses on (i.e., classrompliance with Additionally, ts and staff to number of on-se	ories, s as coms, the reduce site
Count availa and st the pr emiss	ng spaces (127) relative to the number of party's Parking Regulations (Chapter 3 of the Chapter 3 of the Cha	county's Zoning ring business h on, such as sch dopted for the	g Regulations) nours indirectly nool shuttles of purpose of red	, and the limite y encourage s r carpool. The ducing GHG	ed tudents
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
North	resion: The project site is located in a light Fair Oaks community and therefore will not ce: Project Location.	industrial zone have any impa	ed district of the act on forestla	e densely deve nds.	eloped
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
baysh	ussion: The project site is not located near nore inundation maps prepared as part of the ders the potential for both shoreline overtopp	e County of Sa	n Mateo Sea	Change Progra	am that

affected by, or have any impact on, sea level rise.

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

				CA
7.e.	Expose people or structures to a significant risk of loss, injury or death involving sea level rise?			X
Disc	ussion: See staff's discussion in Section 7.0	d. above.		
Sour	ce: 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
Discu	ussion: The project site is not located within	a 100-year flo	ood hazard ar	ea.
	ce: Federal Emergency Management Agend 1C0302E, effective October 16, 2012.	cy, Flood Insu	rance Rate Ma	ap, Community Panel
7.g.	Place within an anticipated 100-year flood hazard area structures that would impede or redirect flood flows?			X
Discu	ussion: See staff's discussion in Section 7.f	. above.		
Sour	ce: See referenced source in Section 7.f. ab	oove.		

		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	ce: Project Plans; County of San Mateo Per	mit 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 = =		Х		
	ssion: See staff's discussion in Section 8.a						
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			
	ssion: Despite the project site's existing ar			, the school w	ill not		
	ny hazardous emissions. See staff's discus ee: Project Plans.	sion in Section	n o.a. above.				
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?				Х		
Hazar Contro State Leakir as Sp potent over 1 hazard	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?				Х		
public	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?				Х			
	ssion: The project site is not located within	the vicinity of	any known pr	ivate airstrip.				
Source	e: Project Location.							
8.g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		X					
with the not pro expans impact reduce physica signific measu	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.							
	Project Plans; Final Traffic Impact Analyston Transportation Consultants, Inc., dated Consultants			ansion, prepar	ed by			
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			
in close	sion: The project site is in the densely urbe proximity to any wildlands. Project Location.	anized area o	f North Fair O	aks and theref	ore not			
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?				Х			
	sion: The project area is not located within any housing.	n a 100-year fl	ood hazard ar	ea and does r	not			
Manage	e: County of San Mateo General Plan, Natu ement Agency, Flood Insurance Rate Map, r 16, 2012.				е			

8.j.	Place within an existing 100-year flood hazard area structures that would impede or redirect flood flows?		=		X
	ussion: See staff's discussion in Section 8.i. ace: See referenced sources in Section 8.i. a				
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
the pr	ission: According to FEMA flood maps and oject parcels are not within an area that cou am or levee.				
Emer	ce: Project Location; County of San Mateo (gency Management Agency, Flood Insurancive October 16, 2012.	General Plan, e Rate Map, C	Natural Hazar Community Pa	ds Map; Fede nel 06081C03	ral 02E,
8.1.	Inundation by seiche, tsunami, or mudflow?				X
parce locate	Ission: According to the San Mateo County Is are not located in a tsunami or seiche inured in a flat, densely developed urban area who do not concern.	ndation area.	Furthermore,	the project par	cels are

9.	HYDROLOGY AND WATER QUALITY.	Would the proj	ect:		
		Potentially Significant Impacts	Significant Unless Mitigated	Less Than Significant Impact	No Impact
9.a.	Violate any water quality standards or waste discharge requirements				Х

Source: San Mateo County General Plan, Natural Hazards Map; Project Location.

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))?

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 X 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)? 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 X 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? 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 X 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 onor off-site? 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
to the	ussion: The project proposes no changes to e existing drainage patterns. ce: Project Plans.	the existing o	development c	conditions of th	e site or
9.f.	Significantly degrade surface or ground-water water quality?				Χ
the vi	ussion: The project proposed no changes to icinity. Furthermore, the project will utilize exed by the California Water Service Company.	isting develop	ment which w	rill continue to	be
Sour	ce: Project Plans.				
9.g.	Result in increased impervious surfaces and associated increased runoff?				Х
	ussion: See staff's discussions in Section 9.				

10.	LAND USE AND PLANNING. Would the project:							
	927	Potentially Significant Impacts	Significant Unless Mitigated	Less Than Significant Impact	No Impact			
10.a.	Physically divide an established community?				Х			

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.

	i saver ar				THE CANADA STATE OF THE CA	
	10.b.	Conflict with any applicable land use	X	(
	2 1000 CO 1000 CO	plan, policy or regulation of an agency				
			1			
		with jurisdiction over the project				
		(including, but not limited to, the general				
1		plan, specific plan, local coastal				
		program, or zoning ordinance) adopted				
1						
		for the purpose of avoiding or mitigating				
		an environmental effect?				
1		539111124-4 COLUMNOS - 1247-4140-4149-4140-41400 - COUNT-COTO 175-175-175-175-175-175-175-175-175-175-				

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 use³ 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 nonconforming 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 parttime 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.							
	<u>Mitigation Measure 3</u> : 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.							
Count	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?				Х			
	ssion: The project would not conflict with a rvation plan.	ny habitat con	servation plar	or natural co	mmunity			
	e: California Department of Fish and Wildlit nal Conservation Plans Map.	fe, Habitat Coi	nservation Pla	nning, Califorr	nia			
10.d.	Result in the congregating of more than 50 people on a regular basis?		Х					
during enrollr projec institut schoo Sectio recom projec	ssion: The project will result in the congregative school year (August through June) as the school year (August through June) as the ment to 260; current student enrollment is apply the parcels is Industrial Mixed Use which allow the parcels is Industrial Mixed Use which allow the parcels such as schools/training and specifically the potential to generate parking and the parcel section 16. Which includes further mended mitigation measures related to increase. The project Plans; See referenced sources in the school of the project Plans; See referenced sources in the school of the sch	he project is p oproximately 2 vs a medium to orts facilities. raffic impacts her discussion eased parking	roposed to inc 20. The land high density The intensity of to the area. S on the potenti and traffic as	rease student use designation of land uses, if use for the kee staff's discal impacts and sociated with the	on for the including (-8 ussion in			
10.e.	Result in the introduction of activities not currently found within the community?				Х			
Edisor projec	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		X
	housing?		

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?				Х			
	ission: The project parcel does not contain al Resources Map of the County's General F		neral resource	es, according	to the			
Sourc	ce: San Mateo County General Plan, Minera	al Resources N	Лар.					
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?				Х			

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			Х				
	established in the local general plan or noise ordinance, or applicable standards of other agencies?							

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?			

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?				Х		
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)?				Х		

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
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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?				Х
14.b.	Police protection?				Х
14.c.	Schools?				Х
14.d.	Parks?				Х

14.e.	Other public facilities or utilities (e.g., hospitals, or electrical/natural gas supply systems)?		X
Discu	ssion: The project proposes to expand an	existing K-8 private school into existing	

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
and the	ission: The project will provide on-site (independent of the project will provide on-site (independent of the project Plans). Project Plans.	of any neighbo	rhood or regio	l areas for stu onal parks or c	dents other
15.b.	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				Х

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?				Х		
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,							

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:

<u>Mitigation Measure 4</u>: 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.

<u>Mitigation Measure 5</u>: 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.

<u>Mitigation Measure 6</u>: 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:

<u>Mitigation Measure 7</u>: 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:

<u>Mitigation Measure 9</u>: 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		X
	access?		

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.							
Sourc	e: 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?		Х				
Discussion: See staff's discussion in Section 10.b. above.							
Source	e: 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?				Х	

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.

		U-12-16-16-16-16-16-16-16-16-16-16-16-16-16-			
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?			Х	
District Comp Depart evaluation the no exp signification Source	ssion: The project parcels will continue to at (via the County of San Mateo Department any, both of which have provided (condition the timent of Public Works has indicated that the sted to determine if there is sufficient capacite proposed project, such evaluation would be pectation that any potential upgrades to the cant environmental effects given that the secunity. e: Project Plans; California Water Service (aks Sewer Maintenance District.	of Public Worl al) approval of e existing down ty to accommo e required at the sewer district's rvice district ar	ks) and the Ca the project. V nstream sewer odate any addi ne building per s facilities wou rea consists of	nlifornia Water While the Cour mains must to tional sewage mit stage, and ld result in any a densely urb	Service nty be demand d there is / banized
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?				Х
	ssion: See staff's discussion in Section 9.a.				
17.d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				Х
Compa	ssion: The project parcels will continue to bany, who has provided approval of the projee: Project Plans; California Water Service (ct with no con		Vater Service	
17.e.	Result in a determination by the waste- water 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	
	ssion: See staff's discussion in Section 17. See referenced sources in Section 17.b.				

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.							
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.							
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		X	
	projects, and the effects of probable future projects.)			

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	X		
	adverse effects on human beings, either directly or indirectly?			

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		Х	
State Department of Public Health		X	

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

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

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

<u>Mitigation Measure 1</u>: 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.

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

<u>Mitigation Measure 3</u>: 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.

<u>Mitigation Measure 4</u>: 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.

<u>Mitigation Measure 5</u>: 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.

<u>Mitigation Measure 6</u>: 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.

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

<u>Mitigation Measure 8</u>: 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.

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

On the	basis of this initial evaluation:	
3		OT have a significant effect on the environment, and prepared by the Planning Department.
X	ment, there WILL NOT be a significa	ect could have a significant effect on the environ- nt effect in this case because of the mitigation en included as part of the proposed project. A repared.
\$2.500 miles	I find that the proposed project MAY ENVIRONMENTAL IMPACT REPOR	have a significant effect on the environment, and an RT is required.
		Sumban ban
		(Signature)
-	3/30/17	Project Planner
Date	8	(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)

DETERMINATION (to be completed by the Lead Agency).

- 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)

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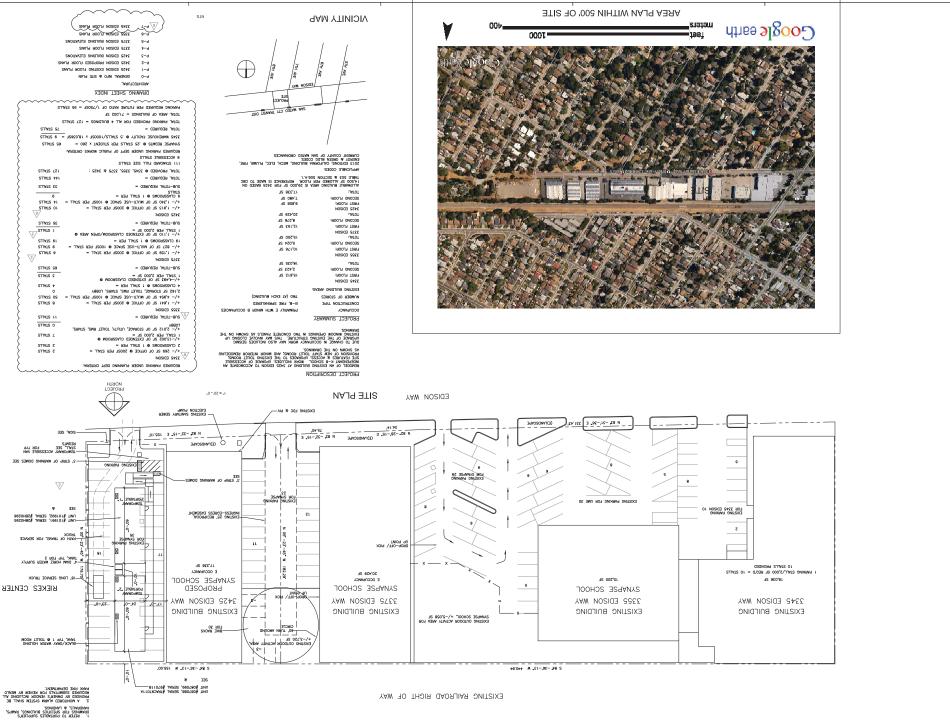
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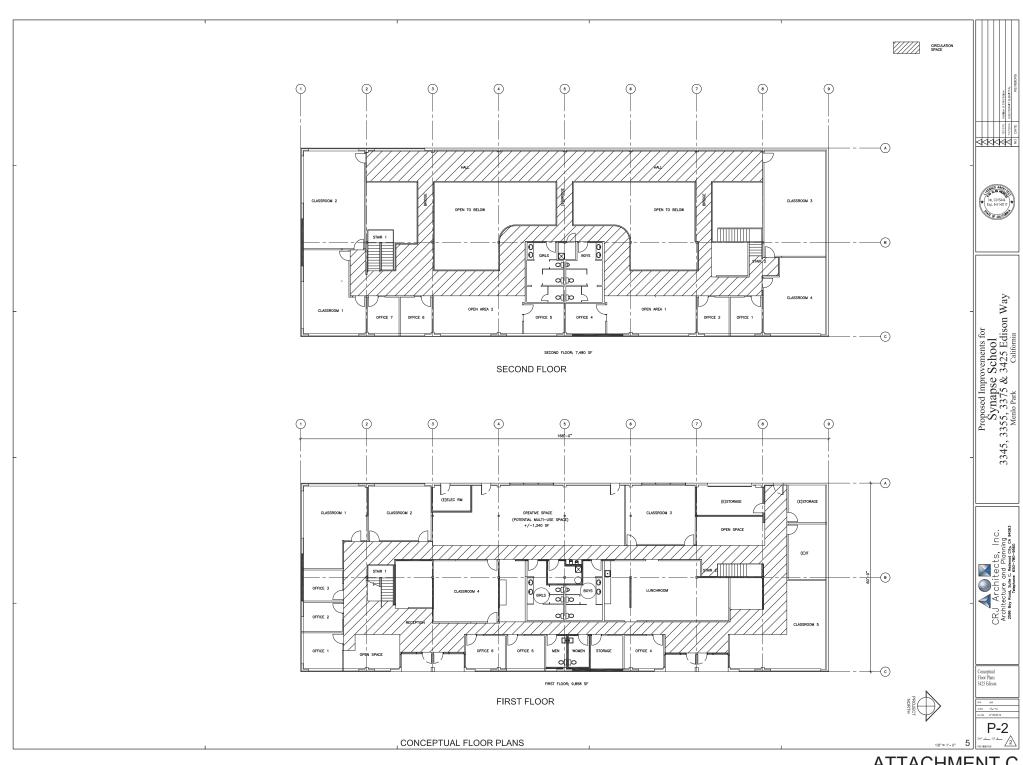
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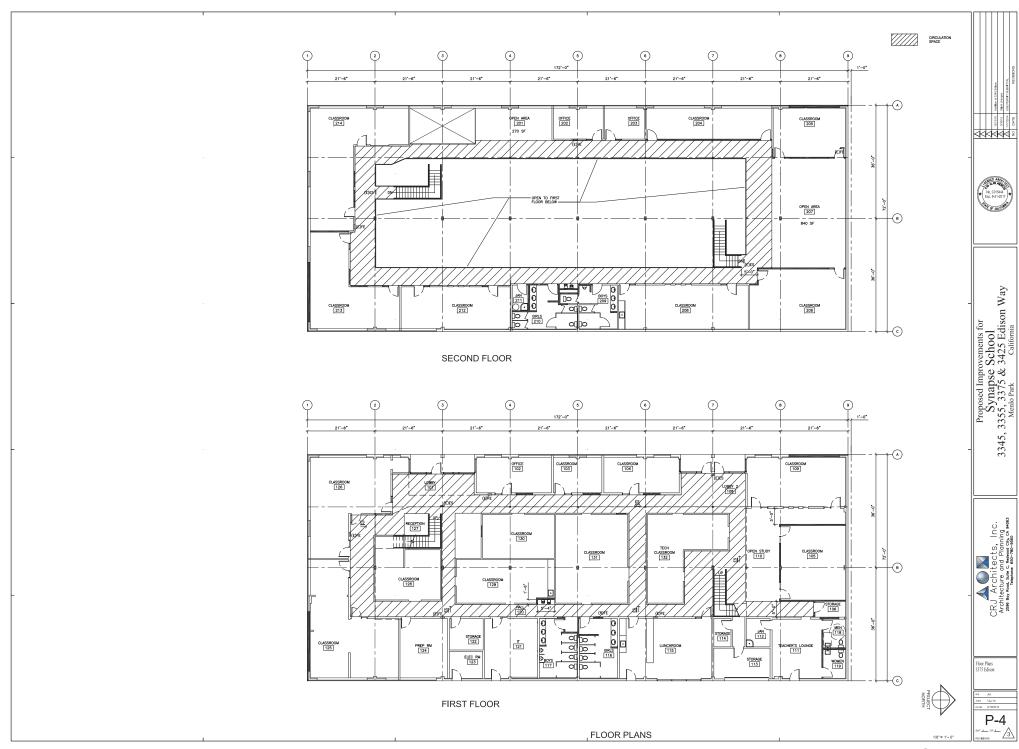
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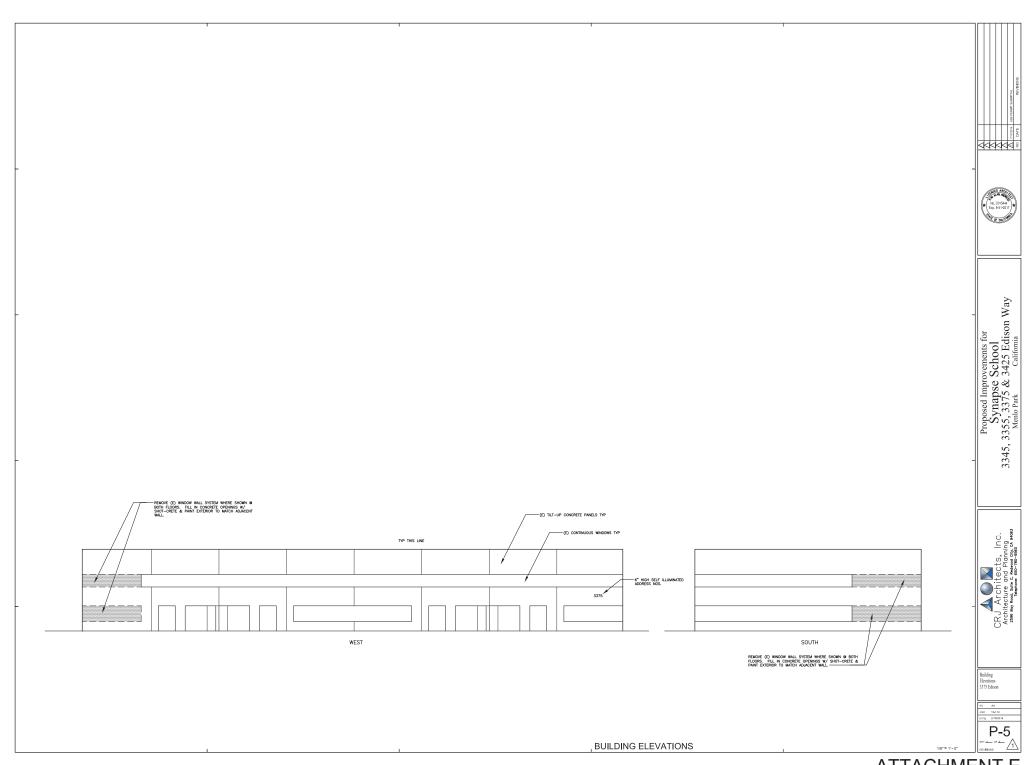
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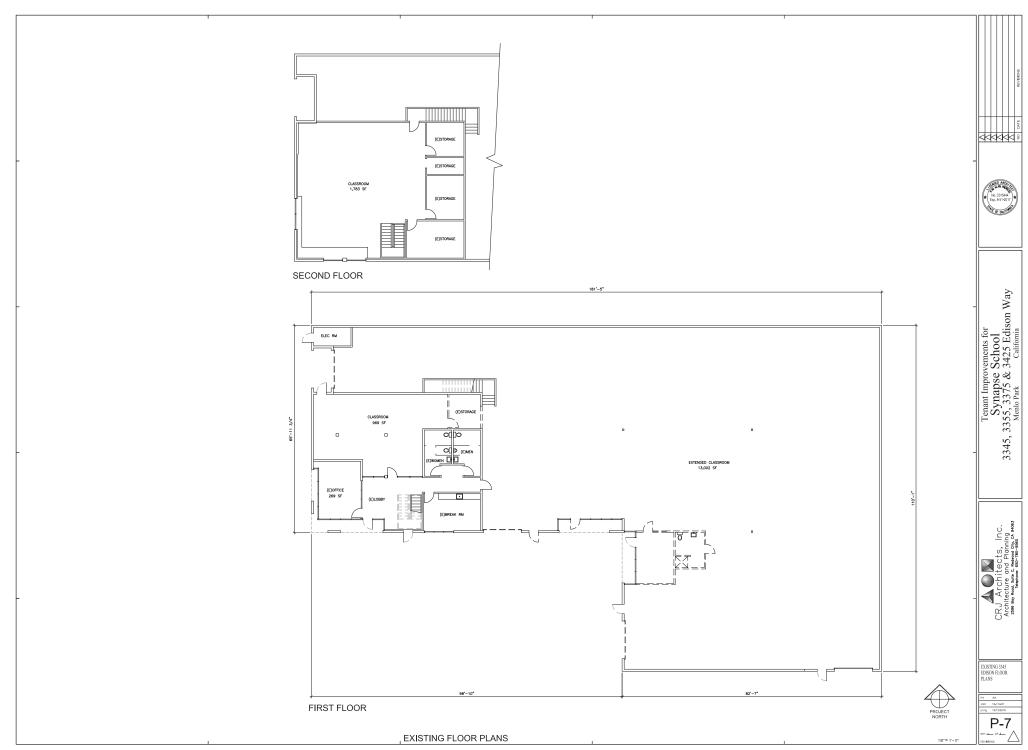












ATTACHMENT G

County of San Mateo - Planning and Building Department

PLACHMENT





HEXAGON TRANSPORTATION CONSULTANTS, INC.



Synapse School Expansion Project II

Trafic Impact Analysis



Prepared for:

Synapse School

April 21, 2021











Hexagon Transportation Consultants, Inc.

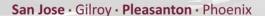
Hexagon Office: 4 N. Second Street, Suite 400

San Jose, CA 95113

Phone: 408.971.6100

Hexagon Job Number: 18GB41

Client Name: Jim Eagen, Synapse School



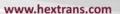




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Executive Summary

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 queuing 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

					Exis	ting		Exi	isting	+ Proje	ct	Ba	ckgrou	ınd		Back	groun	d + Proj	ect	Cu	ımulati	ive		Cun	nulativ	+ Proje	ct
				Avera	ige ¹	Wor	st ²	Avera	age ¹	Wor	st²	Avera	ge ¹	Wor	st²	Avera	ge ¹	Wor	st ²	Avera	ige ¹	Wor	st ²	Avera	ige ¹	Wor	st ²
ı.	Intersection (Jurisdiction)	Control	Peak Hour	Delay (sec.)	106	Delay (sec.)	100	Delay (sec.)		Delay (sec.)	100	Delay (sec.)	LOS	Delay (sec.)	100	Delay (sec.)	100	Delay (sec.)	106	Delay (sec.)	100	Delay (sec.)	100	Delay (sec.)	100	Delay (sec.)	1.09
יטו	intersection (Jurisdiction)	Control	noui	(360.)	LUJ	(566.)	LUJ	(360.)	LUJ	(566.)	LUJ	(560.)	LUJ	(566.)	LUJ	(566.)	LUJ	(560.)	LUJ	(560.)	LU3	(560.)	LOS	(566.)	LUJ	(566.)	LOG
1	2nd Ave and Edison Wy (San Mateo County)	AWSC	AM PM	9.1 8.5	A A	9.8 8.9	A A	9.2 8.5	A A	9.9 8.9	A A	9.3 8.8	A A	9.9 9.4	A A	9.3 8.9	A A	10.0 9.4	A A	10.3 9.1	B A	11.4 9.6	B A	10.3 9.1	B A	11.4 9.7	B A
2	5th Ave and Edison Wy	AWSC I	AM Vitigated AM ⁵	18.3	С	24.9	С	20.1	С	28.1	D	18.3	С	24.9	С	20.1	С	28.1	D	39.5	E	64.8	F	45.5 41.0	E E	78.0 68.4	E <i>E</i>
	(San Mateo County)		PM	18.8	С	25.0	С	19.3	С	25.8	D	18.8	С	25.0	С	19.3	С	25.8	D	38.5	Е	64.2	F	40.3	E	68.1	F
3	Fair Oaks Ave and Edison Wy (San Mateo County)	owsc	AM PM			9.5 9.4	A A			9.6 9.4	A A			9.5 9.4	A A			9.6 9.4	A A			9.7 9.5	A A			9.8 9.6	A A
4	Fair Oaks Ave and Marsh Rd (San Mateo County)	owsc	AM PM			16.9 18.8	C C			17.3 18.9	C C			18.0 20.4	C C			18.4 20.5	C C			19.0 21.7	C C			19.5 21.9	C C
5	5th Ave and Semicircle Rd (San Mateo County)	Signal	AM PM	7.3 5.4	A A	10.1 8.7	A A	7.3 5.4	A A	10.2 8.7	B A	7.2 5.4	A A	10.1 8.8	B A	7.3 5.4	A A	10.2 8.8	B A	14.6 9.0	B A	22.6 12.0	C B	14.7 9.0	B A	22.8 12.1	C B
6	5th Ave and Middlefield Rd (San Mateo County)	Signal	AM PM	24.9 26.2	C C	36.8 37.4	D D	25.5 26.4	C C	37.0 37.6	D D	25.4 26.4	C C	36.7 38.2	D D	26.1 26.6	C C	37.2 38.3	D D	36.0 37.6	D D	49.3 52.8	D D	37.8 38.1	D D	51.2 53.3	D D
7	Marsh Rd and Middlefield Rd (Atherton)	Signal	AM PM	29.3 32.1	C C			29.5 32.2	C C			32.6 34.0	C C			32.8 34.0	C C			32.7 38.3	C D			32.9 38.4	C D		
8	Marsh Rd and Bay Rd (Menlo Park)	Signal	AM PM	24.1 33.2	C C			24.2 33.2	C C			25.2 32.2	C C			25.3 32.2	C C			25.6 33.5	C C			25.7 33.5	C C		
9	5th Ave and El Camino Real (San Mateo County)	Signal	AM PM	19.2 19.7	B B	34.3 31.9	C C	19.4 19.8	B B	34.6 32.0	C C	19.4 19.9	B B	34.3 32.2	C C	19.6 20.0	B B	34.6 32.5	C C	25.7 26.5	C C	43.9 43.0	D D	26.2 26.7	C C	45.4 43.4	D D
10	Marsh Rd and Florence St (Menlo Park)	Signal	AM PM	37.9 39.0	D D			37.8 39.0	D D			36.4 39.0	D D			36.5 39.0	D D			39.5 41.6	D D			39.5 41.6	D D		
11	5th Ave and Bay Rd (Redwood City)	AWSC	AM PM	30.6 29.1	D D			30.9 29.2	D D			34.3 36.1	D E			34.7 36.3	D E										
		Signal ⁴	AM PM																	19.5 13.4	B B			20.2 13.4	C B		
12	Woodside Rd and Bay Rd (Redwood City)	Signal	AM PM	81.2 47.1	F D			81.7 47.2	F D			124.7 95.1	F F			125.2 95.2	F F			90.6 122.7	F F			91.7 122.9	F F		
13	Woodside Rd and Middlefield Rd (Redwood City/CMP)	Signal	AM PM	41.9 35.3	D D			42.2 35.3	D D			43.9 35.0	D D			44.1 35.1	D D			117.1 127.3	F F			117.6 127.6	F F		
14	Marsh Rd and US 101 NB Off-ramp (Menlo Park)	Signal	AM PM	17.6 13.5	B B			17.6 13.5	B B			25.0 13.8	C B			25.1 13.9	C B			19.8 15.8	B B			19.9 15.9	B B		
15	Marsh Rd and US 101 SB Off-ramp (Menlo Park)	Signal	AM PM	17.4 17.8	B B			17.4 17.8	B B			19.0 17.9	B B			19.1 17.9	B B			19.5 19.7	B B			19.6 19.7	B B		
16	2nd Ave and Bay Rd (Redwood City)	AWSC	AM PM	12.7 12.6	B B			12.8 12.6	B B			13.7 14.2	B B			13.8 14.3	B B			28.3 14.1	D B			28.7 14.2	D B		
17	2nd Ave and Middlefield Rd	TWSC I	AM Vitigated AM ⁵			40.9	E			43.2	E			46.0	E			48.9	E			155.5	F			167.3 159.1	F F
	(San Mateo County)		PM			26.3	D			26.3	D			57.9	F			58.5	F			62.7	F			64.1	F
	San Benito Ave and Fair Oaks Ave (San Mateo County)	TWSC	AM PM			11.9 9.7	B A			12.2 9.7	B A			11.9 9.7	B A			12.2 9.7	B A			12.6 9.9	B A			12.9 10.0	B B
19	Palmer Ln and Fair Oaks Ave (San Mateo County)	TWSC	AM PM			11.5 9.9	B A			11.6 9.9	B A			11.5 9.9	B A			11.6 9.9	B A			12.1 10.1	B B			12.3 10.2	B B
20	Holbrook Ln and Fair Oaks Ave (San Mateo County)	TWSC	AM PM			10.7 9.3	B A			10.8 9.3	B A			10.7 9.3	B A			10.8 9.3	B A			11.1 9.4	B A			11.2 9.5	B A



				Exis	Existing		Existing + Project		Background		Background + Project		:t	Cumulative			Cumulative + Proje		ct				
				Average ¹	Wors	st ²	Average ¹	Wor	st ²	Avera	ge ¹	Wors	st ²	Average ¹	Worst	2	Average ¹	Wors	st ²	Avera	ige ¹	Wors	st ²
			Peak	Delay	Delay		Delay	Delay		Delay		Delay		Delay	Delay	D	elay	Delay		Delay		Delay	
ID	Intersection (Jurisdiction)	Control	Hour	(sec.) LOS	(sec.)	LOS	(sec.) LOS	(sec.)	LOS	(sec.)	LOS	(sec.)	LOS	(sec.) LOS	(sec.) L	OS (s	sec.) LOS	(sec.)	LOS	(sec.)	LOS	(sec.)	LOS
21	18th Ave and Bay Rd	OWSC ³	АМ		9.3	Α		9.3	Α			9.3	Α		9.3	A		10.1	В			10.1	В
	(San Mateo County)	OWSC	PM		8.7	Α		8.7	Α			8.7	Α		8.7	Α		8.9	Α			8.9	Α
22	14th Avee and Fair Oaks Ave	TWSC	AM		10.8	В		11.0	В			10.8	В		11.0	В		11.3	В			11.5	В
	(San Mateo County)	10030	PM		9.8	Α		9.8	Α			9.8	Α		9.8	Α		10.0	В			10.0	В

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

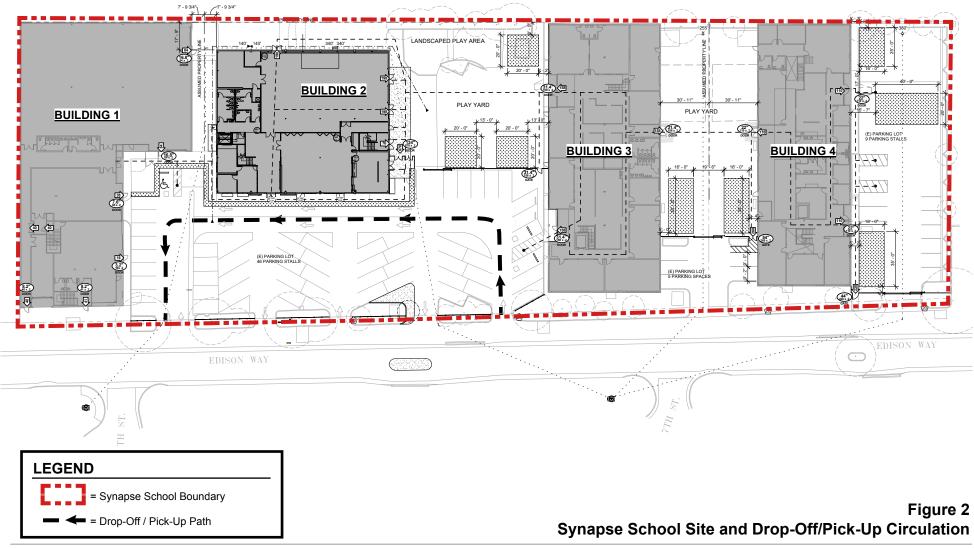
The traffic study was conducted for the purpose of identifying potential transportation impacts related to the project. The potential impacts of the project were evaluated in accordance with the standards set forth by the County of San Mateo, Redwood City, City of Menlo Park, and Town of Atherton. The 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.















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.)
А	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
В	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
С	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
Е	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: Tra	ansportation 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.)									
А	Little or no traffic delay	10.0 or less									
В	Short traffic delays	10.1 to 15.0									
С	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	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.
- 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; <u>and</u> traffic volumes at the intersection satisfy the Caltrans peakhour 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.

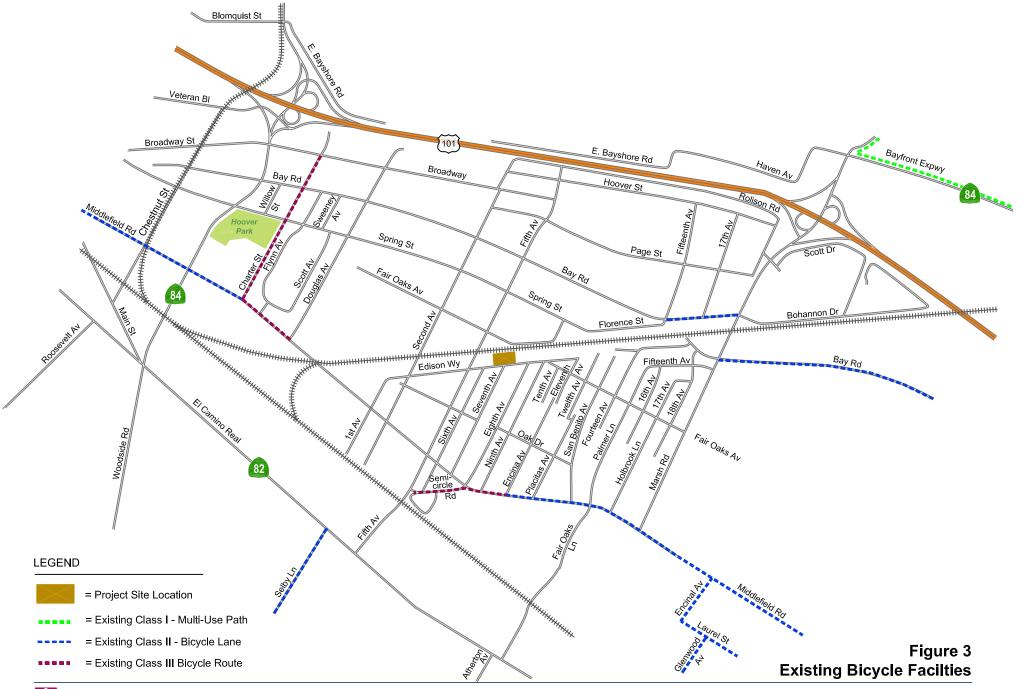
The San Mateo County Comprehensive Bicycle and Pedestrian Plan (September 2011) proposes future designation of 5th Avenue (between Middlefield road and Bay Road) and Bay Road (between Charter Street and 5th Avenue) as Class III bike routes within the study area. Based on the Redwood City General Plan, 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.















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

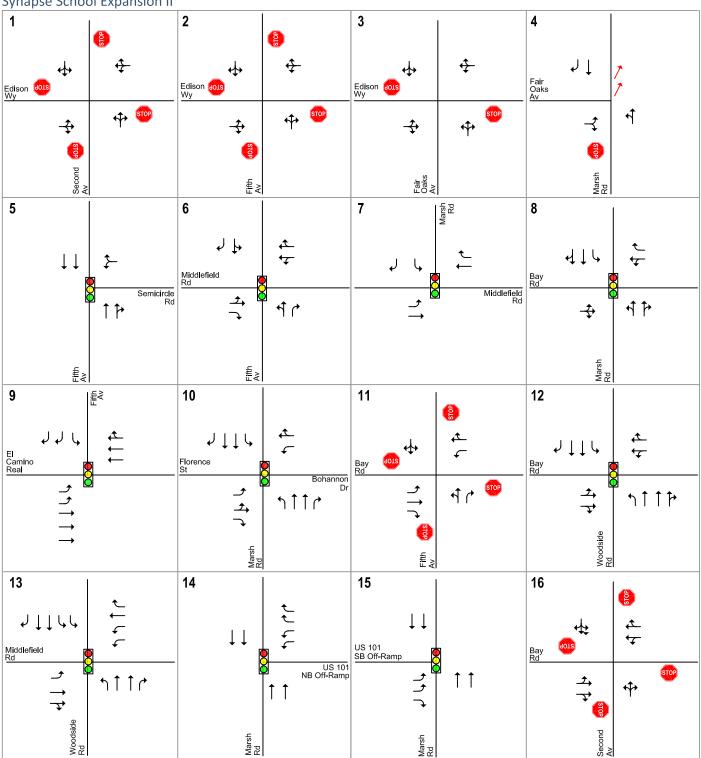
The results of the intersection level of service analysis (Table 3) show that under the existing conditions, all study intersections are operating within applicable level of service standards, with the following exceptions:

- 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





		40		40		00	
17		18		19		20	47th Av
Middlefield	4	Fair Oaks dols	‡	Fair dols +	\\	Fair Oaks Av	\$
<i>→</i> →	♦	‡	STOP	-	₹	→	₹ STOP
Second		San Benito Av		Palmer Ln		Holbrook	
21		22	\$				
Bay Rd	\	Fair Oaks Av	~				
7,	**	‡	₹				
18th Av		14th Av					

LEGEND



= Stop Controlled Intersection



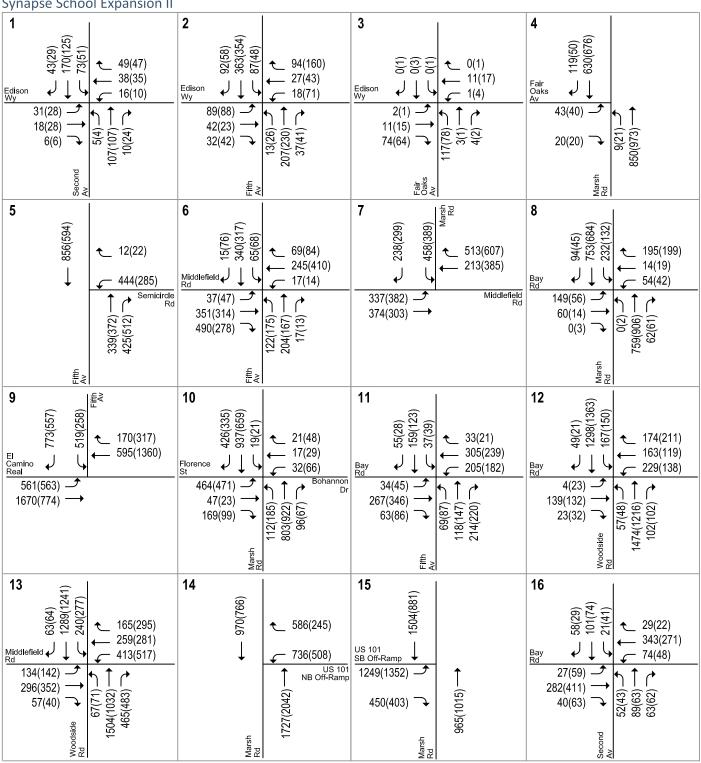
= Signalized Intersection



Figure 5 **Existing Lane Configurations**







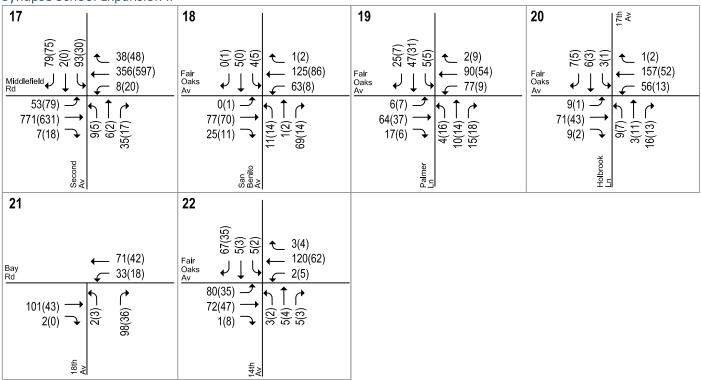
LEGEND

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

Figure 6 **Existing Traffic Volumes**







LEGEND

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







Table 3
Existing Intersection Levels of Service

-2	sting intersection Levels of Service			Aver	age ¹	Woi	rst ²
			Peak	Delay	ugo	Delay	31
ID	Intersection (Jurisdiction)	Control	Hour	(sec.)	LOS	(sec.)	LOS
1	2nd Ave and Edison Wy	AWSC	AM	9.1	Α	9.8	Α
	(San Mateo County)		PM	8.5	Α	8.9	Α
2	5th Ave and Edison Wy	AWSC	AM	18.3	С	24.9	С
	(San Mateo County)		PM	18.8	С	25.0	С
3	Fair Oaks Ave and Edison Wy	OWSC	AM			9.5	Α
	(San Mateo County)		PM			9.4	Α
4	Fair Oaks Ave and Marsh Rd	OWSC	AM			16.9	С
	(San Mateo County)		PM			18.8	С
5	5th Ave and Semicircle Rd	Signal	AM	7.3	Α	10.1	Α
	(San Mateo County)		PM	5.4	Α	8.7	Α
6	5th Ave and Middlefield Rd	Signal	AM	24.9	С	36.8	D
	(San Mateo County)		PM	26.2	С	37.4	D
7	Marsh Rd and Middlefield Rd	Signal	AM	29.3	С		
	(Atherton)		PM	32.1	С		
8	Marsh Rd and Bay Rd	Signal	AM	24.1	С		
	(Menlo Park)		PM	33.2	С		
9	5th Ave and El Camino Real	Signal	AM	19.2	В	34.3	С
	(San Mateo County)		PM	19.7	В	31.9	С
10	Marsh Rd and Florence St	Signal	AM	37.9	D		
	(Menlo Park)		PM	39.0	D		
11	,	AWSC	AM	30.6	D		
	(Redwood City)	<u> </u>	PM	29.1	D		
12	Woodside Rd and Bay Rd	Signal	AM	81.2	F		
40	(Redwood City)	0: 1	PM	47.1	D		
13	Woodside Rd and Middlefield Rd	Signal	AM	41.9	D		
11	(Redwood City/CMP)	Ciava al	PM	35.3	D		
14	Marsh Rd and US 101 NB Off-ramp	Signal	AM	17.6	В		
15	(Menlo Park)	Cianal	PM AM	13.5	В		
15	Marsh Rd and US 101 SB Off-ramp	Signal	PM	17.4	B B		
16	(Menlo Park) 2nd Ave and Bay Rd	AWSC	AM	17.8 12.7	В		
10	(Redwood City)	AVVSC	PM	12.7	В		
17	2nd Ave and Middlefield Rd	TWSC	AM	12.0	Ь	40.9	E
''	(San Mateo County)	17700	PM			26.3	D D
18	San Benito Ave and Fair Oaks Ave	TWSC	AM			11.9	В
10	(San Mateo County)	. , , , ,	PM			9.7	A
19	Palmer Ln and Fair Oaks Ave	TWSC	AM			11.5	В
.	(San Mateo County)		PM			9.9	A
20	Holbrook Ln and Fair Oaks Ave	TWSC	AM			10.7	В
	(San Mateo County)		PM			9.3	A



				Aver	Average ¹		rst ²
ID	Intersection (Jurisdiction)	Control	Peak Hour	Delay (sec.)	LOS	Delay (sec.)	LOS
21	18th Ave and Bay Rd	OWSC ³	AM			9.3	А
	(San Mateo County)		PM			8.7	Α
22	14th Avee and Fair Oaks Ave	TWSC	AM			10.8	В
	(San Mateo County)		PM			9.8	Α

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			ak Hou	k Hour			Scho	ol PN	l Peak Hour			
Land Use	Size	Units	Pk-Hr Rate	Sp In	lits Out	In	Out	Total	Pk-Hr Rate	Sp In	lits Out	In	Out	Total	
Land USE	Size	Ullita	Nate		Out	""	Out	I Otal	Nate	""	Out		Out	i Otai	
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:

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.



^{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.

- 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

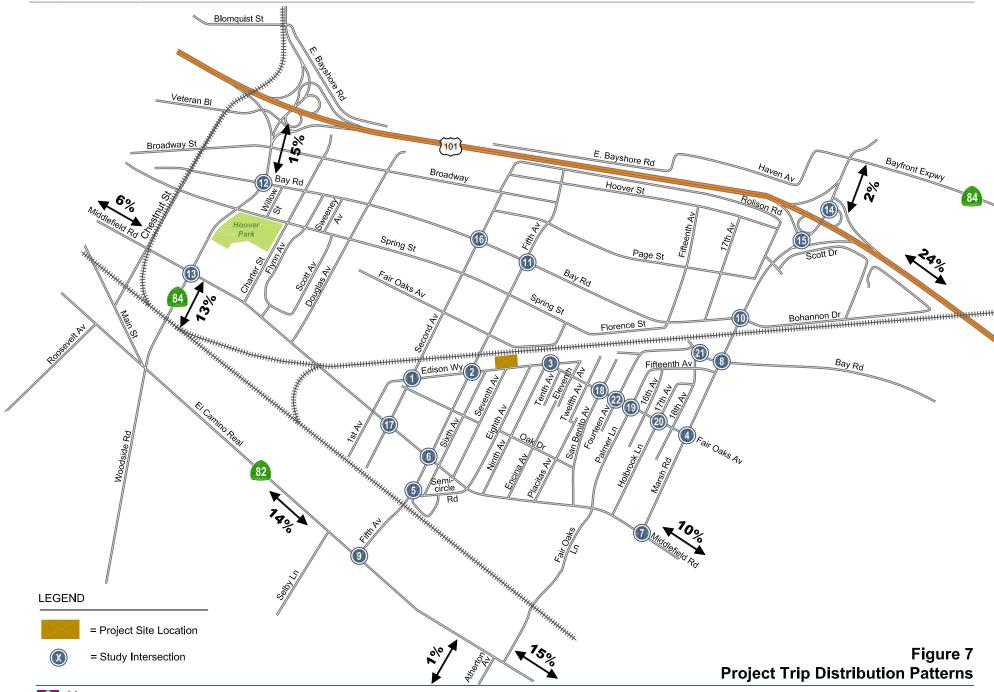
The new project trips, as represented in the above project trip assignment, were added to existing traffic volumes to obtain existing plus project traffic volumes. The existing plus project traffic volumes are shown in Figure 9.

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.









Synapse School Expansion II			
1 1	2	3	4
Edison	Edison $(0,0)$		Fair \bigcirc
Second	Frith	Fair Oaks Av	Marsh Rd
5	6	Marsh Rd	8
10(3)	Middlefield \downarrow Rd	€ 3(1)	(2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4
Semicircle Rd	11(3)-	Middlefield Rd	4(1)
A A A	A A A A A		Marsh Rd
9	10	11	12
(Z) (Z) ← 6(2) El Camino Real	(E) Florence St	Bay Rd	2) ← 5(2) Bay Rd
5(1) —	Marsh Rd S(3)	5(1) → (1) 4 (1)	Woodside Rd
40			
$ \begin{array}{c} $	0)1	15 (E)6 US 101 SB Off-Ramp (0)1	16 Bay A(1) 5(1) →
Woodside Rd	Marsh Rd	Marsh Rd	Second

LEGEND

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

Figure 8 Project Trip Assignment





17	EXPANSION II	18		19		20	47th A
2(5) Middlefield A	← 1(0)		← 13(4)	Fair Oaks Av	← 11(3)	Fair Oaks Av	← 11(3)
5(2) 2(0) 		12(4)		7(3)		7(3)	
Second Av		San Benito Av		Palmer Ln		Holbrook	
21		22					
Bay Rd	← 2(0)	Fair Oaks Av	— 11(3)				
4(1)		4(1) ** 7(3) **					
18th Av		14th Av					

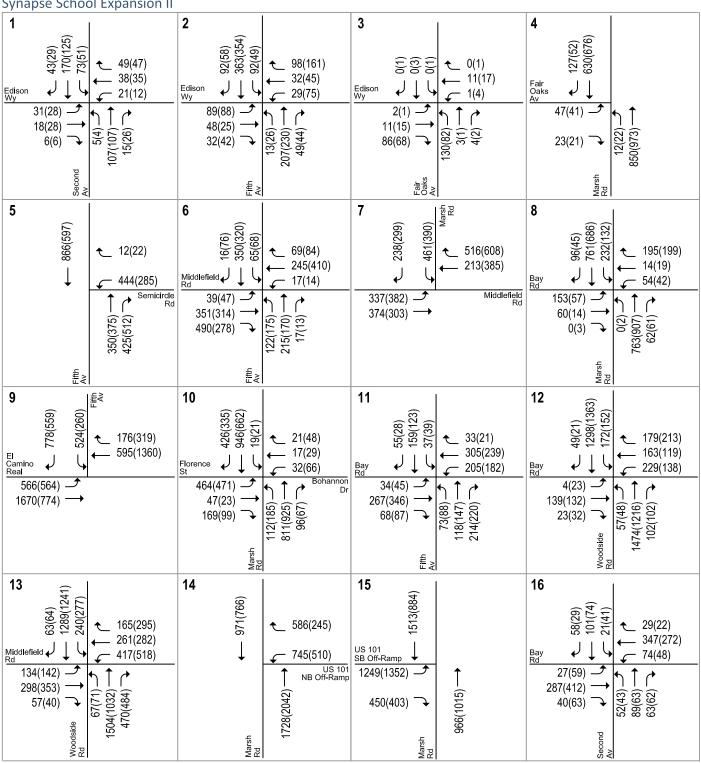
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XX(XX) =AM(PM) Peak-Hour Trips









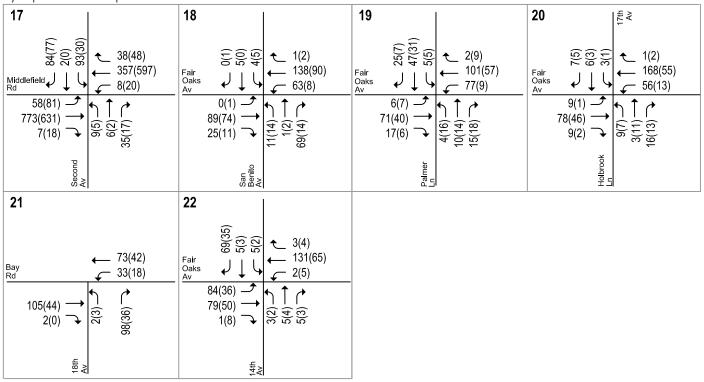
LEGEND

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

Figure 9 **Existing Plus Project Traffic Volumes**







LEGEND

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





Table 5
Existing Plus Project Intersection Levels of Service

					Exis	ting		Existing + Project				
				Aver		Wor	st²	Avera		Wor		
			Peak	Delay		Delay		Delay		Delay		
ID	Intersection (Jurisdiction)	Control	Hour	(sec.)	LOS	(sec.)	LOS	(sec.)	LOS	(sec.)	LOS	
1	2nd Ave and Edison Wy	AWSC	AM	9.1	Α	9.8	Α	9.2	Α	9.9	Α	
	(San Mateo County)		PM	8.5	Α	8.9	Α	8.5	Α	8.9	Α	
2	5th Ave and Edison Wy	AWSC	AM	18.3	С	24.9	С	20.1	С	28.1	D	
	(San Mateo County)		PM	18.8	С	25.0	С	19.3	С	25.8	D	
3	Fair Oaks Ave and Edison Wy	owsc	AM			9.5	Α			9.6	Α	
	(San Mateo County)		PM			9.4	Α			9.4	Α	
4	Fair Oaks Ave and Marsh Rd	owsc	AM			16.9	С			17.3	С	
	(San Mateo County)		PM			18.8	С			18.9	С	
5	5th Ave and Semicircle Rd	Signal	AM	7.3	Α	10.1	Α	7.3	Α	10.2	В	
	(San Mateo County)		PM	5.4	Α	8.7	Α	5.4	Α	8.7	Α	
6	5th Ave and Middlefield Rd	Signal	AM	24.9	С	36.8	D	25.5	С	37.0	D	
	(San Mateo County)		PM	26.2	С	37.4	D	26.4	С	37.6	D	
7	Marsh Rd and Middlefield Rd	Signal	AM	29.3	С			29.5	С			
	(Atherton)		PM	32.1	С			32.2	С			
8	Marsh Rd and Bay Rd	Signal	AM	24.1	С			24.2	С			
	(Menlo Park)		PM	33.2	С			33.2	С			
9	5th Ave and El Camino Real	Signal	AM	19.2	В	34.3	С	19.4	В	34.6	С	
	(San Mateo County)		PM	19.7	В	31.9	С	19.8	В	32.0	С	
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			
40	(Redwood City)	0. 1	PM	47.1	D			47.2	D			
13		Signal	AM	41.9	D			42.2	D			
4.4	(Redwood City/CMP)	Ciana al	PM	35.3	D			35.3	D			
14		Signal	AM	17.6	В			17.6	В			
15	(Menlo Park)	Cianal	PM	13.5	В			13.5	В			
15	Marsh Rd and US 101 SB Off-ramp	Signal	AM	17.4	В			17.4	В			
16	(Menlo Park)	AWSC	PM	17.8	В			17.8	В			
16	2nd Ave and Bay Rd (Redwood City)	AVVSC	AM PM	12.7 12.6	B B			12.8 12.6	B B			
17	2nd Ave and Middlefield Rd	TWSC		12.0	Ь	40.0	_	12.0	Ь	43.2	_	
17	(San Mateo County)	TWSC	AM PM			40.9 26.3	E D			43.2 26.3	E D	
1Ω	San Benito Ave and Fair Oaks Ave	TWSC	AM			11.9	В			12.2	В	
10	(San Mateo County)	10000	PM			9.7	А			9.7	A	
10	Palmer Ln and Fair Oaks Ave	TWSC	AM			11.5	В			11.6	В	
10	(San Mateo County)	1 1 1 0 0	PM			9.9	A			9.9	A	
20	Holbrook Ln and Fair Oaks Ave	TWSC	AM			10.7	В			10.8	В	
20	(San Mateo County)	1 1 1 0 0	PM			9.3	A			9.3	A	
	(Jan Maioo Journey)		1 171			0.0	,,			0.0	7.	



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

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.

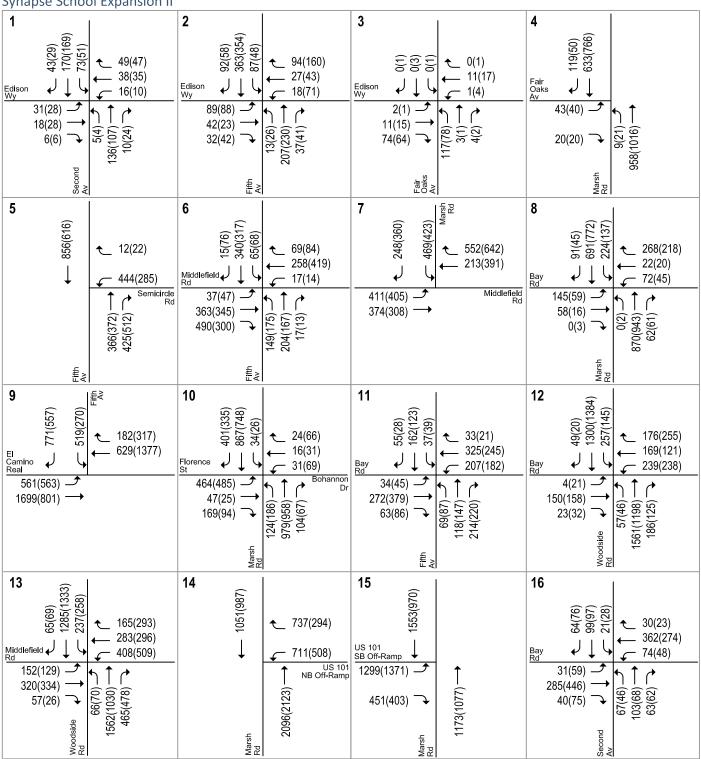
Background Intersection Levels of Service

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.





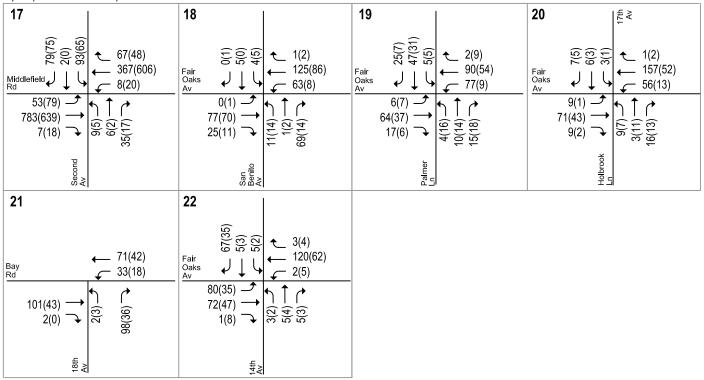
LEGEND

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

Figure 10 **Background Traffic Volumes**







LEGEND







Table 6
Intersection Levels of Service Under Background Conditions

					Exis	sting		Ва	ckgro	und	
				Aver		Wor	st²	Aver		Wor	st²
			Peak	Delay		Delay		Delay		Delay	
ID	Intersection (Jurisdiction)	Control	Hour	(sec.)	LOS	(sec.)	LOS	(sec.)	LOS	(sec.)	LOS
1	2nd Ave and Edison Wy	AWSC	AM	9.1	Α	9.8	Α	9.3	Α	9.9	Α
	(San Mateo County)		PM	8.5	Α	8.9	Α	8.8	Α	9.4	Α
2	5th Ave and Edison Wy	AWSC	AM	18.3	С	24.9	С	18.3	С	24.9	С
	(San Mateo County)		PM	18.8	С	25.0	С	18.8	С	25.0	С
3	Fair Oaks Ave and Edison Wy (San Mateo County)	OWSC	AM PM			9.5 9.4	A A			9.5 9.4	A A
4	Fair Oaks Ave and Marsh Rd	owsc	AM			16.9	C			18.0	C
-	(San Mateo County)		PM			18.8	С			20.4	С
5	5th Ave and Semicircle Rd	Signal	AM	7.3	Α	10.1	Α	7.2	Α	10.1	В
	(San Mateo County)	· ·	PM	5.4	Α	8.7	Α	5.4	Α	8.8	Α
6	5th Ave and Middlefield Rd	Signal	AM	24.9	С	36.8	D	25.4	С	36.7	D
	(San Mateo County)		PM	26.2	С	37.4	D	26.4	С	38.2	D
7	Marsh Rd and Middlefield Rd	Signal	AM	29.3	С			32.6	С		
	(Atherton)		PM	32.1	С			34.0	С		
8	Marsh Rd and Bay Rd	Signal	AM	24.1	С			25.2	С		
	(Menlo Park)		PM	33.2	С			32.2	С		
9	5th Ave and El Camino Real	Signal	AM	19.2	В	34.3	С	19.4	В	34.3	С
	(San Mateo County)		PM	19.7	В	31.9	С	19.9	В	32.2	С
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		
12	(Redwood City)	Signal	PM AM	29.1 81.2	D F			36.1	E F		
12	Woodside Rd and Bay Rd (Redwood City)	Signal	PM	47.1	r D			124.7 95.1	F		
13	• • • • • • • • • • • • • • • • • • • •	Signal	AM	41.9	D			43.9	D		
13	(Redwood City/CMP)	Signal	PM	35.3	D			35.0	D		
14		Signal	AM	17.6	В			25.0	С		
	(Menlo Park)	ga.	PM	13.5	В			13.8	В		
15	Marsh Rd and US 101 SB Off-ramp	Signal	AM	17.4	В			19.0	В		
	(Menlo Park)	3	РМ	17.8	В			17.9	В		
16		AWSC	AM	12.7	В			13.7	В		
	(Redwood City)		PM	12.6	В			14.2	В		
17	2nd Ave and Middlefield Rd	TWSC	AM			40.9	Е			46.0	Е
	(San Mateo County)		PM			26.3	D			57.9	F
18	San Benito Ave and Fair Oaks Ave	TWSC	AM			11.9	В			11.9	В
	(San Mateo County)		PM			9.7	Α			9.7	Α
19	Palmer Ln and Fair Oaks Ave	TWSC	AM			11.5	В			11.5	В
	(San Mateo County)		PM			9.9	Α			9.9	Α
20	Holbrook Ln and Fair Oaks Ave	TWSC	AM			10.7	В			10.7	В
	(San Mateo County)		PM			9.3	Α			9.3	Α



				Exis	ting		Backgro	und	
				Average ¹	Wor	st ²	Average ¹	Wor	st ²
			Peak	Delay	Delay		Delay	Delay	
ID	Intersection (Jurisdiction)	Control	Hour	(sec.) LOS	(sec.)	LOS	(sec.) LOS	(sec.)	LOS
21	18th Ave and Bay Rd	OWSC ³	AM		9.3	Α		9.3	Α
	(San Mateo County)		PM		8.7	Α		8.7	Α
22	14th Avee and Fair Oaks Ave	TWSC	AM		10.8	В		10.8	В
	(San Mateo County)		PM		9.8	Α		9.8	Α

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

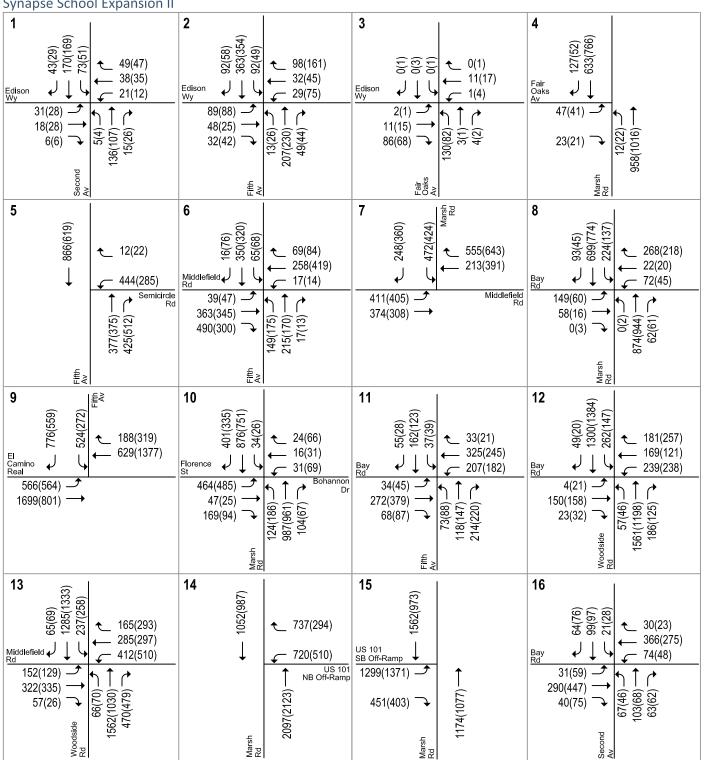
The project trip estimates, as previously described in Chapter 3 (see Table 4), were added to the background traffic volumes (described in Chapter 4) to derive the background plus project traffic volumes (see Figure 11).

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.



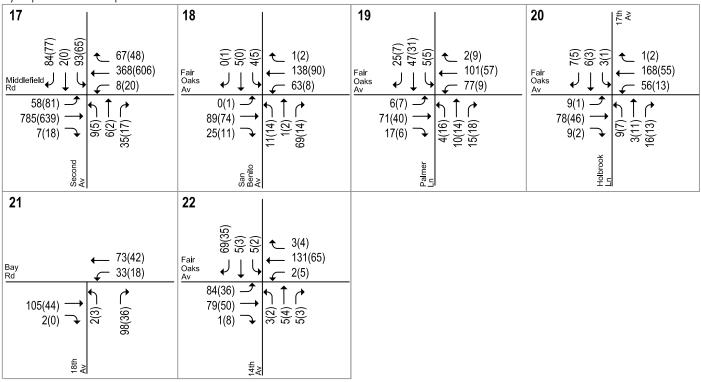


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Table 7
Background plus Project Intersection Levels of Service

				Ва	ckgro	und		Back	(groun	d + Pro	ject
				Avera		Wor	st ²	Aver		Wor	
			Peak	Delay		Delay		Delay		Delay	
ID	Intersection (Jurisdiction)	Control	Hour	(sec.)	LOS	(sec.)	LOS	(sec.)	LOS	(sec.)	LOS
1	2nd Ave and Edison Wy	AWSC	AM	9.3	Α	9.9	Α	9.3	Α	10.0	Α
	(San Mateo County)		PM	8.8	Α	9.4	Α	8.9	Α	9.4	Α
2	5th Ave and Edison Wy	AWSC	AM	18.3	С	24.9	С	20.1	С	28.1	D
	(San Mateo County)		PM	18.8	С	25.0	С	19.3	С	25.8	D
3	Fair Oaks Ave and Edison Wy	owsc	AM			9.5	Α			9.6	Α
	(San Mateo County)	014/00	PM			9.4	A			9.4	A
4	Fair Oaks Ave and Marsh Rd	owsc	AM			18.0	С			18.4	С
_	(San Mateo County)	0: 1	PM		•	20.4	С	7.0		20.5	С
5	5th Ave and Semicircle Rd	Signal	AM	7.2	A	10.1	В	7.3	A	10.2	В
_	(San Mateo County)	0:	PM	5.4	A	8.8	A	5.4	A	8.8	A
6	5th Ave and Middlefield Rd	Signal	AM	25.4	С	36.7	D	26.1	С	37.2	D
7	(San Mateo County) Marsh Rd and Middlefield Rd	Cianal	PM	26.4	C C	38.2	D	26.6	C C	38.3	D
7		Signal	AM	32.6	С			32.8	C		
8	(Atherton) Marsh Rd and Bay Rd	Signal	PM AM	34.0 25.2	С			34.0 25.3	С		
0	(Menlo Park)	Signal	PM	32.2	С			32.2	С		
9	5th Ave and El Camino Real	Signal	AM	19.4	В	34.3	С	19.6	В	34.6	С
3	(San Mateo County)	Olgriai	PM	19.9	В	32.2	C	20.0	В	32.5	C
10	Marsh Rd and Florence St	Signal	AM	36.4	D	JZ.Z	- C	36.5	D	JZ.J	
10	(Menlo Park)	Olgridi	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)	- 13	РМ	95.1	F			95.2	F		
13		Signal	AM	43.9	D			44.1	D		
	(Redwood City/CMP)	Ū	РМ	35.0	D			35.1	D		
14	Marsh Rd and US 101 NB Off-ramp	Signal	AM	25.0	С			25.1	С		
	(Menlo Park)		PM	13.8	В			13.9	В		
15	Marsh Rd and US 101 SB Off-ramp	Signal	AM	19.0	В			19.1	В		
	(Menlo Park)		PM	17.9	В			17.9	В		
16	2nd Ave and Bay Rd	AWSC	AM	13.7	В			13.8	В		
	(Redwood City)		PM	14.2	В			14.3	В		
17	2nd Ave and Middlefield Rd	TWSC	AM			46.0	Ε			48.9	Ε
	(San Mateo County)		PM			57.9	F			58.5	F
18	San Benito Ave and Fair Oaks Ave	TWSC	AM			11.9	В			12.2	В
	(San Mateo County)		PM			9.7	Α			9.7	Α
19	Palmer Ln and Fair Oaks Ave	TWSC	AM			11.5	В			11.6	В
	(San Mateo County)		PM			9.9	Α			9.9	Α
20	Holbrook Ln and Fair Oaks Ave	TWSC	AM			10.7	В			10.8	В
	(San Mateo County)		PM			9.3	Α			9.3	Α



ackground + Pro	ject
verage ¹ Wor	st ²
lay Delay	
c.) LOS (sec.)	LOS
9.3	Α
8.7	Α
11.0	В
9.8	Α
/ 	rerage ¹ Wor ay Delay c.) LOS (sec.) 9.3 8.7 11.0

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.

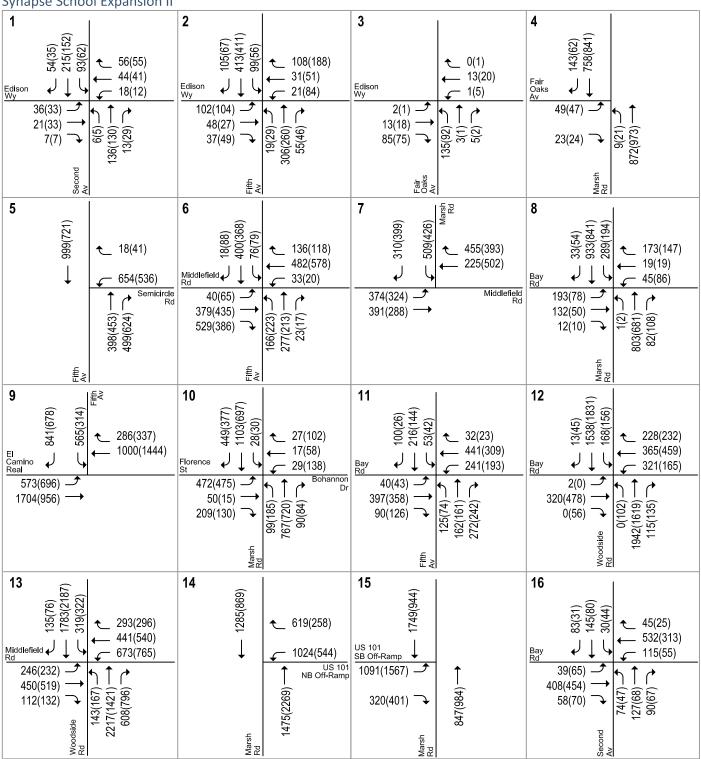
Cumulative Project Impacts

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.



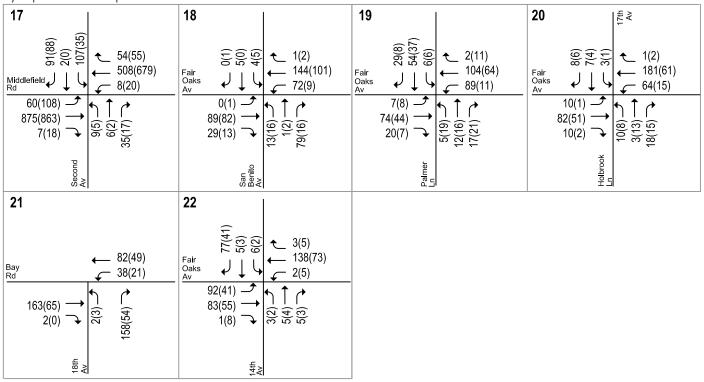


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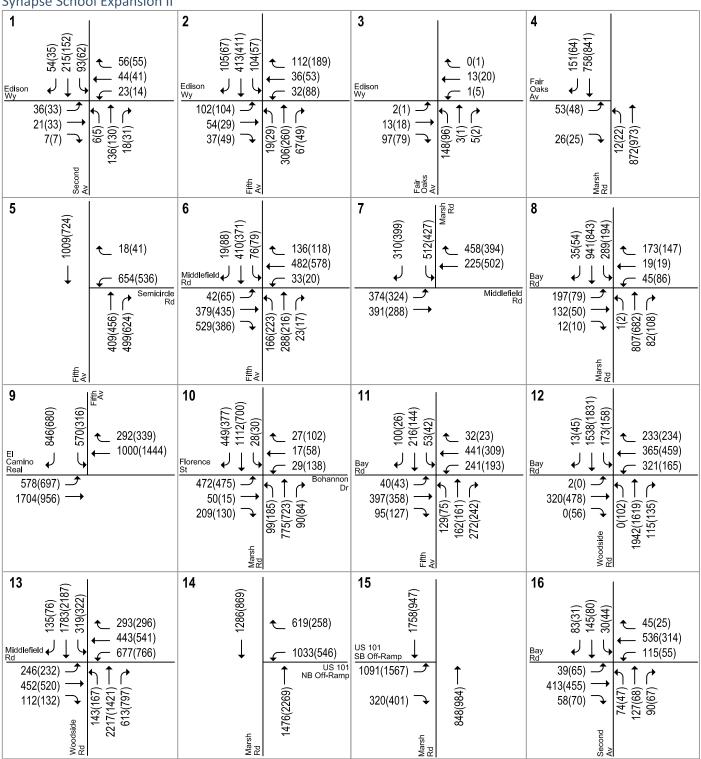




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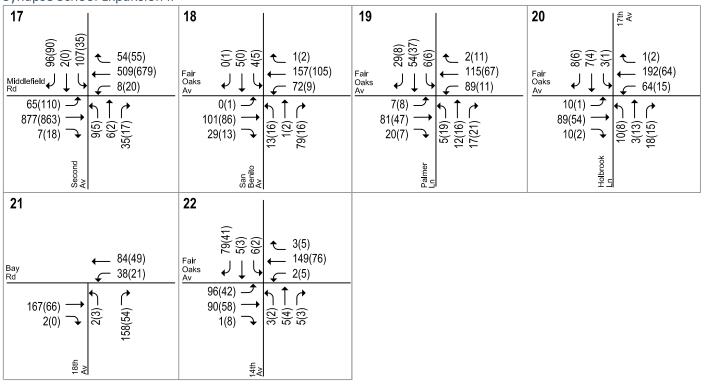


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Table 8 Intersection Levels of Service Under Cumulative Conditions

				Cu	ımulat	ive		Cum	ulativ	e + Proj	ect
				Avera		Wor	st ²	Avera		Wor	
			Peak	Delay		Delay		Delay		Delay	
ID	Intersection (Jurisdiction)	Control	Hour	(sec.)	LOS	(sec.)	LOS	(sec.)	LOS	(sec.)	LOS
1	2nd Ave and Edison Wy	AWSC	AM	10.3	В	11.4	В	10.3	В	11.4	В
	(San Mateo County)		PM	9.1	Α	9.6	Α	9.1	Α	9.7	Α
2	5th Ave and Edison Wy	AWSC	AM	39.5	E	64.8	F	45.5	Е	78.0	Е
			Mitigated AM ⁵					41.0	Е	68.4	E
	(San Mateo County)	014/00	PM	38.5	Е	64.2	F	40.3	Е	68.1	F
3	Fair Oaks Ave and Edison Wy (San Mateo County)	OWSC	AM PM			9.7 9.5	A A			9.8 9.6	A A
4	Fair Oaks Ave and Marsh Rd	owsc	AM			19.0	C			19.5	C
-	(San Mateo County)	00	PM			21.7	С			21.9	С
5	5th Ave and Semicircle Rd	Signal	AM	14.6	В	22.6	С	14.7	В	22.8	С
	(San Mateo County)		PM	9.0	Α	12.0	В	9.0	Α	12.1	В
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	С			32.9	С		
0	(Atherton) Marsh Rd and Bay Rd	Signal	PM AM	38.3 25.6	D C			38.4 25.7	D C		
8	(Menlo Park)	Signal	PM	33.5	С			33.5	С		
9	5th Ave and El Camino Real	Signal	AM	25.7	С	43.9	D	26.2	С	45.4	D
	(San Mateo County)	- 19.1	PM	26.5	C	43.0	D	26.7	С	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	В			20.2	С		
	(Redwood City)		PM	13.4	В			13.4	В		
12	Woodside Rd and Bay Rd	Signal	AM	90.6	F			91.7	F		
12	(Redwood City) Woodside Rd and Middlefield Rd	Cianal	PM AM	122.7	F			122.9	F		
13	(Redwood City/CMP)	Signal	PM	117.1 127.3	F			117.6 127.6	F		
14	Marsh Rd and US 101 NB Off-ramp	Signal	AM	19.8	В			19.9	В		
	(Menlo Park)	Ü	PM	15.8	В			15.9	В		
15	Marsh Rd and US 101 SB Off-ramp	Signal	AM	19.5	В			19.6	В		
	(Menlo Park)		PM	19.7	В			19.7	В		
16	2nd Ave and Bay Rd	AWSC	AM	28.3	D			28.7	D		
	(Redwood City)		PM	14.1	В		_	14.2	В		
17	2nd Ave and Middlefield Rd	TWSC	AM			155.5	F			167.3	F
	(San Mateo County)		Mitigated AM ⁵ PM			62.7	F			159.1 64.1	F F
18	San Benito Ave and Fair Oaks Ave	TWSC	AM			12.6	В			12.9	В
.5	(San Mateo County)		PM			9.9	A			10.0	В
19		TWSC	AM			12.1	В			12.3	В
	(San Mateo County)		PM			10.1	В			10.2	В
20	Holbrook Ln and Fair Oaks Ave	TWSC	AM			11.1	В			11.2	В
	(San Mateo County)		PM			9.4	Α			9.5	Α



				Cumulat	ive		Cumulativ	e + Proj	ect
				Average ¹	Wor	st ²	Average ¹	Wor	'st ²
			Peak	Delay	Delay		Delay	Delay	
ID	Intersection (Jurisdiction)	Control	Hour	(sec.) LOS	(sec.)	LOS	(sec.) LOS	(sec.)	LOS
21	18th Ave and Bay Rd	OWSC ³	AM		10.1	В		10.1	В
	(San Mateo County)		PM		8.9	Α		8.9	Α
22	14th Avee and Fair Oaks Ave	TWSC	AM		11.3	В		11.5	В
	(San Mateo County)		PM		10.0	В		10.0	В

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

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

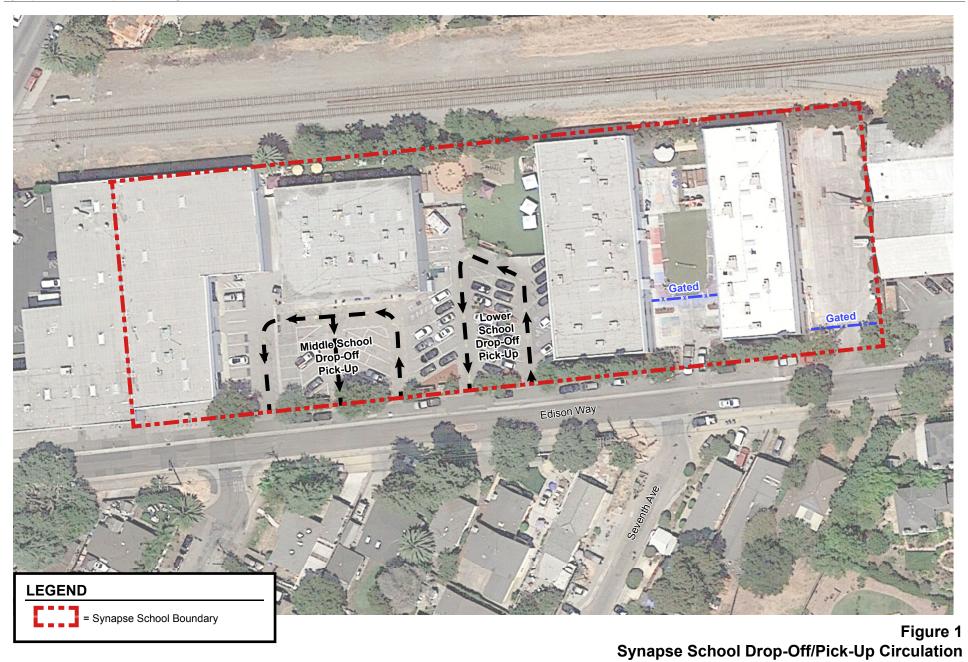
	AM Peak-Hour Trips										
Date	Total	ln	Out								
10/10/18 (Wed)	253	141	112								
10/18/18 (Thu)	287	155	132								
10/23/18 (Tue)	268	145	123								
Average	269	147	122								

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.

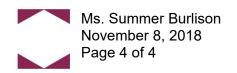
In the morning, the drop-off vehicle queue occasionally extended out of the parking lot by one to two vehicles, which blocked the shoulder/parking lane but did not block the westbound traffic on Edison Way. Most of the time, the drop-off traffic moved efficiently and smoothly within the parking lot.

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.









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

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

870 Castlewood Dr. #1 Los Gatos, CA 95032

Phone 408-826-9673 Fax 408-877-1625

	Drivew	ay 1 & 2	Drive	eway 3		Driveway 4			Drivew	ay 5 & 6	Drive	eway 7		On-	Street			
Start Time	IN	OUT	IN	OUT		IN	OUT	1	IN	OUT	IN	OUT	7 [IN	OUT			
7:00	0	0	0	0		0	0		0	0	0	0		0	0			
7:15	0	0	0	0	1	0	0	1	0	0	4	0	7 [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	1	0	0	1	2	0	9	0	7 [0	0			
8:15	14	2	5	0		0	0		6	0	14	0	7	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	7	1	1			
	9 at	9AM	5 at	9AM	_		-	_	4 at	9AM	14 a	t 9AM					Parking	32
																Hourly		
Peak Hour	_															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	7 [0	0	37		
7:30 - 8:30	45	21	5	0		0	0		13	7	9	0	7 [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

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

AUTO-CENSUS

Traffic Monitoring and Analysis 870 Castlewood Dr. #1

Los Gatos, CA 95032 Phone 408-826-9673 Fax 408-877-1625

	Drivewa	ay 1 & 2	Drive	way 3		Drive	way 4		Drivew	ay 5 & 6	Drive	way 7		On-	Street				
Start Time	IN	OUT	IN	OUT	1	IN	OUT		IN	OUT	IN	OUT	1 [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	1 [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	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	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	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 a	9AM						Parking	44
																	Hourly		
Peak Hour					_			_									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

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

AUTO-CENSUS

Traffic Monitoring and Analysis 870 Castlewood Dr. #1

Los Gatos, CA 95032 Phone 408-826-9673 Fax 408-877-1625

	Drivewa	ay 1 & 2	Drive	way 3					Drivew	ay 5 & 6	Drive	eway 7		On-	Street				
Start Time	IN	OUT	IN	OUT		IN	OUT		IN	OUT	IN	OUT		IN	OUT				
7:00	0	0	0	0	Ī	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	Ī	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	Ī	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	7 [1	1				
9:00	78	63	5	0		0	0		63	55	15	3		4	4				
	1 car a	at 9AM	5 at	9AM	_				11 a	t 9AM	12 a	t 9AM						Parking	29
																Ho	ourly		
Peak Hour																To	otals		
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	ĺ	
7:30 - 8:30	47	23	2	0		0	0		22	14	10	1	7 [0	0	1	19	ĺ	
7:45 - 8:45	70	48	1	0		0	0		38	32	9	2	7 I	1	1	2	202	Ĭ	
8:00 - 9:00	73	62	0	0		0	0		59	55	9	2	7 [4	4	2	268	ĺ	
	-	•	•	•	_			-	-		•							•	
Peak Volumes:	73	62	0	0		0	0		59	55	9	2	0	4	4	2	268	145	123

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

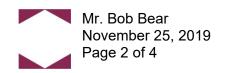
The school drop-off period is between 8:15 and 8:45 AM for all grades every day. The pick-up periods are 3:15-3:30 PM for the lower school and 3:30-3:45 PM for the middle school on Monday through Thursday. On Friday, the pick-up periods are 2:30-2:45 PM for the lower school and 2:45-3:00 PM for the middle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

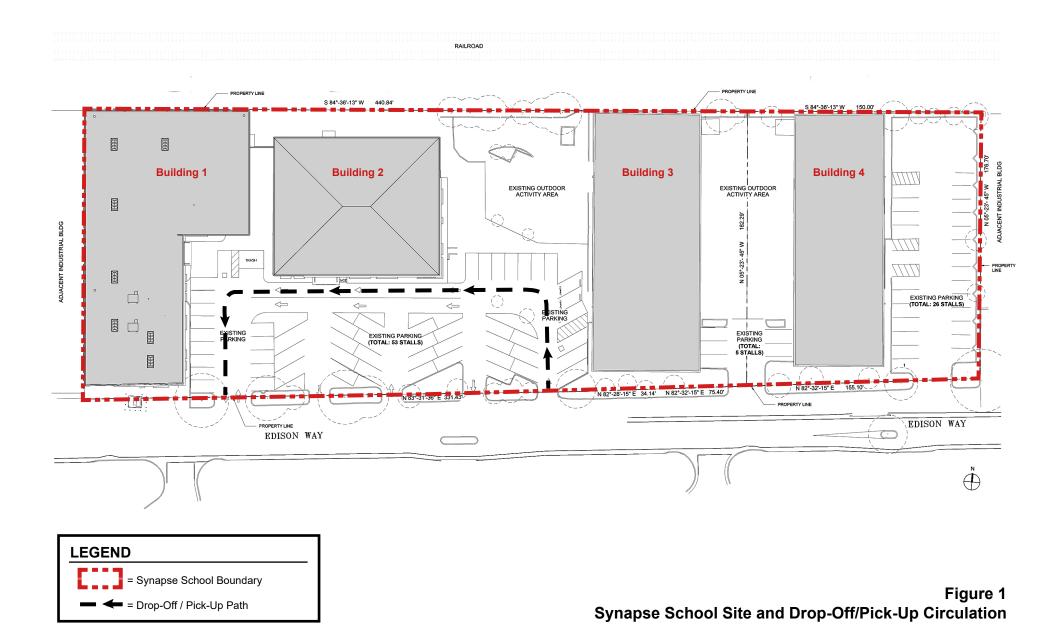
Table 1
Synapse School Trip Generation

	AM P	eak-Hour	Trips
Date	Total	ln	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

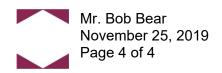
Figure 1 shows the drop-off/pick-up circulation at the school. The main parking lot is configured with a loading area in front of Building 2. All drop-off/pick-up vehicles enter the parking lot via the driveway in front of Building 3, drop off/pick-up students in front of Building 2, and exit the parking 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.









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

Kai-lin Kur

11/5/2019 Kilbee, Patti, Jo Synapse School Date: Counter:

Intersection Name: Weather: Fair

AUTO-CENSUS

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

	Drivew	ay 1 & 2	Drive	eway 3		Oriveway 4		Drivew	ay 5 & 6	Drive	eway 7		On-Street		27 to	otal spaces	19 total s	paces	
Start Time	IN	OUT	IN	OUT	IN.	OUT		IN	OUT	IN	OUT		IN OUT		DW	VY 5, 6,7	DWY	1 & 2	
7:00	0	0	0	0	C	0		0	0	0	0	i I	0 0			Lot total	L	ot total	
7:15	1	0	2	0	C	0		1	0	0	0		0 0		800	12	800	5	21
7:30	2	0	2	0	C	0		2	0	2	0		0 0		815	15	815	5	25
7:45	5	1	3	0	C	0		6	0	3	1		0 0		830	15	830	8	28
8:00	10	2	4	0	C	0		8	0	4	5		0 0		845	20	845	12	37
8:15	27	10	5	0	C	0		10	2	4	9		0 0		900	14	900	17	36
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	C	0		19	29	4	53		0 0				Queue		
																	830 0		
														Hourly			835 0		
Peak Hour							_							Totals			840 2		
7:00 - 8:00	10	2	4	0	C	0		8	0	4	5	l L	0 0	33			845 0		
7:15 - 8:15	26	10	3	0	C	0		9	2	4	9	l L	0 0	63			850 0		
7:30 - 8:30	51	13	3	0	C	0		12	8	2	32	l L	0 0	121			855 0		
7:45 - 8:45	99	20	2	0	C	0		13	20	1	58		0 0	213			900 0		
8:00 - 9:00	104	25	11	0	C	0		11	29	0	48	L	0 0	218					
Peak Volumes:	104	25	1	0	0	0		11	29	0	48		0 0	218	116	102			

Date:

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

AUTO-CENSUS

Traffic Monitoring and Analysis

5973 Larkstone Loop San Jose, Ca. 95123 Phone 408-533-3398

	Drivew	Driveway 1 & 2 Drivewa		Driveway 3		Driveway 4			Driveway 5 & 6		Driveway 7		On	-Street		27 total spaces		s 19	19 total spaces	
Start Time	IN	OUT	IN	OUT		IN	OUT		IN	OUT	IN	OUT	IN	OUT		D	WY 5, 6,7		DWY 1 & 2	
7:00	0	0	0	0		0	0		0	0	0	0	0	0			Lot total		Lot total	
7:15	1	0	1	0		0	0		0	0	0	0	0	0		800	9	80) 5	18
7:30	3	1	3	0		0	0		2	0	0	1	0	0		815	18	81	5 7	30
7:45	4	1	4	0		0	0		3	0	1	1	0	0		830	19	83) 12	36
8:00	14	3	4	0		0	0	l i	9	0	3	2	0	0		845	24	84	5 16	45
8:15	22	5	5	0		0	0	l i	15	3	4	5	0	0		900	26	90	19	50
8:30	60	8	5	0		0	0	l i	22	13	4	21	0	0						-
8:45	110	16	5	0		0	0	l i	33	38	4	48	0	0						
9:00	131	21	5	0		0	0	l i	34	43	4	59	0	0				Que	ue	
				•														830 0		
															Hourly			835 0		
Peak Hour															Totals			840 3		
7:00 - 8:00	14	3	4	0		0	0	1 [9	0	3	2	0	0	35			845 0		
7:15 - 8:15	21	5	4	0		0	0		15	3	4	5	0	0	57			850 0		
7:30 - 8:30	57	7	2	0		0	0	i i	20	13	4	20	0	0	123			855 0		
7:45 - 8:45	106	15	1	0		0	0	i i	30	38	3	47	0	0	240			900 0		
8:00 - 9:00	117	18	1	0		0	0	i i	25	43	1	57	0	0	262					
Peak Volumes:	117	18	1	0		0	0		25	43	1	57	0	0	262	144	4 11	8		

Date:

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

AUTO-CENSUS

Traffic Monitoring and Analysis

5973 Larkstone Loop San Jose, Ca. 95123 Phone 408-533-3398

	Drivew	Driveway 1 & 2 Driveway 3		Driveway 4		Driveway 5 & 6		Driveway 7		c	On-Street			27 total spaces		3	19 total spaces			
Start Time	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	11	A Of	JT		D	WY 5, 6,7		DWY	1 4 2	
7:00	0	0	0	0	0	0	0	0	0	0) ()			Lot total	_	_	Lot total	
7:15	2	0	1	0	0	0	1	0	0	0	() ()		800	11		800	5	20
7:30	3	0	2	0	0	0	1	0	1	0	() ()		815	15		815	13	33
7:45	4	0	3	0	0	0	3	0	4	0	() ()		830	21		830	11	37
8:00	11	1	4	0	0	0	6	1	4	0) ()		845	27		845	15	47
8:15	26	2	5	0	0	0	11	3	5	5) ()		900	20		900	9	34
8:30	34	6	5	0	0	0	18	9	5	12) ()					-		
8:45	105	15	5	0	0	0	29	24	5	45) ()							
9:00	122	23	5	0	0	0	31	35	5	56	() ()					Queue		
																	830	0		
														Hourly			835	0		
Peak Hour														Totals			840	2		
7:00 - 8:00	11	1	4	0	0	0	6	1	4	0) ()	27			845	5		
7:15 - 8:15	24	2	4	0	0	0	10	3	5	5	() ()	53			850	0		
7:30 - 8:30	31	6	3	0	0	0	17	9	4	12) ()	82			855	0		
7:45 - 8:45	101	15	2	0	0	0	26	24	1	45) ()	214			900	0		
8:00 - 9:00	111	22	1	0	0	0	25	34	1	56) ()	250			-			
		•				•														
Peak Volumes:	111	22	1	0	0	0	25	34	1	56	0 () 0)	250	13	8 11	2			

Appendix B Intersection Peak Hour Traffic Counts

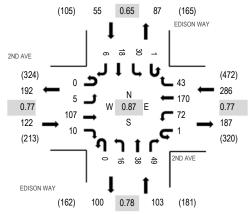


Location: 1 EDISON WAY & 2ND AVE AM Date: Wednesday, September 5, 2018

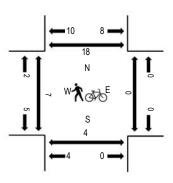
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		2ND	AVE		2ND AVE					EDISON	N WAY		E	EDISO	N WAY							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

		East	bound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

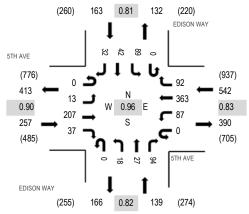


Location: 2 EDISON WAY & 5TH AVE AM **Date:** Wednesday, September 5, 2018

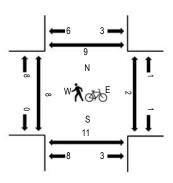
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval		5TH . Eastb				5TH AVE Westbound U-Turn Left Thru Right U-Tur			E	EDISON Northb				EDISOI Southl	N WAY			Rollina	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

		East	bound			Westk	ound			North	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

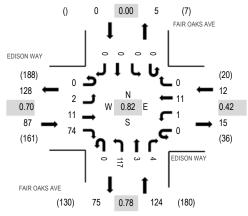


Location: 3 FAIR OAKS AVE & EDISON WAY AM

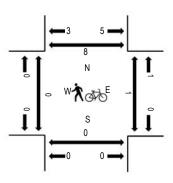
Date: Wednesday, September 5, 2018 **Peak Hour:** 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval		EDISOI Eastb	N WAY ound			DISON Westb			F/	AIR OAI Northb		<u> </u>	F	AIR OA Southl		E		Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru F	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	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

		East	bound			West	oound			Northb	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



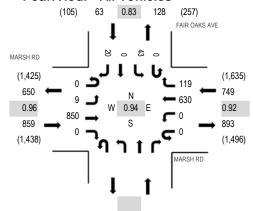
Location: 4 FAIR OAKS AVE & MARSH RD AM

Date: Wednesday, September 5, 2018

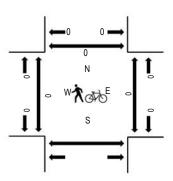
Peak Hour: 08:00 AM - 09:00 AM

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

late and		MARS				MARSH				ما ما المد ما ا			AIR OA		E			Dar		. 0:	
Interval		Eastb	ouna			Westb	buna			Northb	ouna		South	ouna			Rolling			n Crossing	
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South N	Iorth
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

		East	bound			West	oound			North	bound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



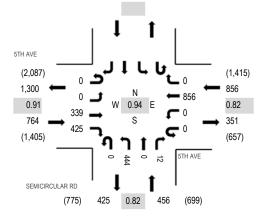
Location: 5 SEMICIRCULAR RD & 5TH AVE AM

Date: Wednesday, September 5, 2018

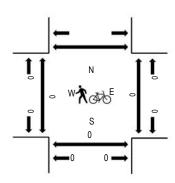
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

	Interval		5TH / Eastbo				5TH A Westb				IICIRCI Northb		RD		South	oound			Rollina	Ped	lestria	n Cross	sings
S	tart Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7	':00 AM	0	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	3:00 AM	0	0	89	109	0	0	215	0	0	135	0	4					552	1,841	0	0	0	
8	3:15 AM	0	0	87	115	0	0	159	0	0	98	0	4					463		0	0	0	
8	3:30 AM	0	0	93	135	0	0	151	0	0	47	0	7					433		0	0	0	
8	3:45 AM	0	0	94	102	0	0	129	0	0	65	0	3					393		0	0	0	

		East	bound			West	ound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



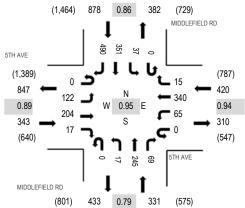
Location: 6 MIDDLEFIELD RD & 5TH AVE AM

Date: Wednesday, September 5, 2018

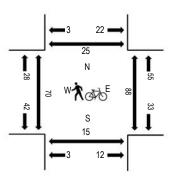
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		5TH	AVE			5TH A	AVE	MII	DDLEF	IELD R	D	MI	DDLEF	IELD R	RD							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

		East	bound			Westb	ound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



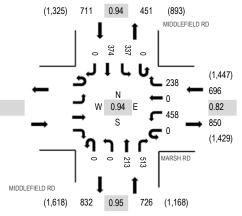
Location: 7 MIDDLEFIELD RD & MARSH RD AM

Date: Wednesday, September 5, 2018

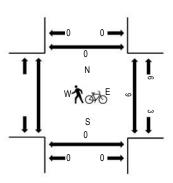
Peak Hour: 08:00 AM - 09:00 AM

Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

						MARSH	H RD		MI	DDLEFI	ELD RI)	MII	DDLEF	IELD R	:D						
Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	destrian	Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM					0	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

	Ea	stbound			West	ound			Northb	ound			South	bound		
Vehicle Type	U-Turn Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

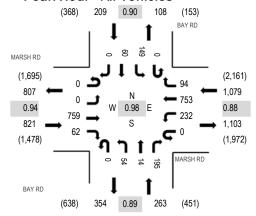


Location: 8 BAY RD & MARSH RD AM

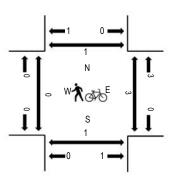
Date: Wednesday, September 5, 2018

Peak Hour: 07:45 AM - 08:45 AM **Peak 15-Minutes:** 08:30 AM - 08:45 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		MARS	H RD		1	MARSH RD					RD			BAY	RD							
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	oound			Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru I	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	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

		East	bound			West	oound			North	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



Location: 9 EL CAMINO REAL & 5TH AVE AM

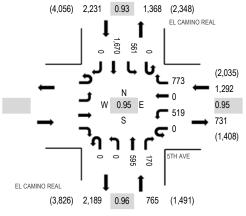
Date: Wednesday, September 5, 2018

Peak Hour: 07:30 AM - 08:30 AM

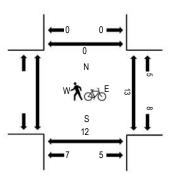
- - - - - -

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

						5TH A	VΕ		EL	CAMIN	O REA	ΛL	EL	CAMIN	NO REA	۸L						
Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	destriar	rossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM					0	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

	Eas	tbound			Westb	ound			North	oound			Sout	hbound		
Vehicle Type	U-Turn Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



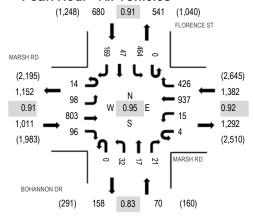
Location: 10 BOHANNON DR & MARSH RD AM

Date: Wednesday, September 5, 2018

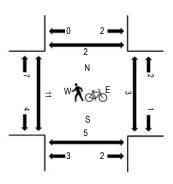
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		MARS	H RD		N	//ARSH	l RD		В	NAHC	ION DR		F	LORE	ICE ST							
Interval		Eastb	ound		1	Westb	ound			Northb	ound			Southl	ound			Rolling	Ped	lestriar	rossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	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

		East	bound			West	ound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



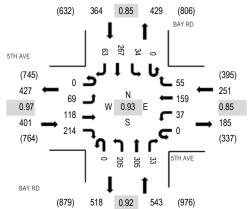
Location: 11 BAY RD & 5TH AVE AM

Date: Wednesday, September 5, 2018

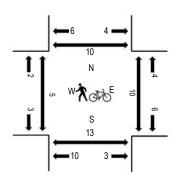
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		5TH	AVE			5TH A	VΕ			BAY	RD			BAY	RD							
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	ound			Rolling	Ped	lestriar	r Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

		East	bound			Westk	ound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



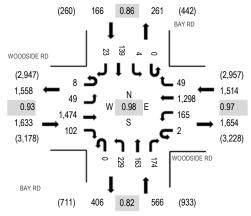
Location: 12 BAY RD & WOODSIDE RD AM

Date: Wednesday, September 5, 2018

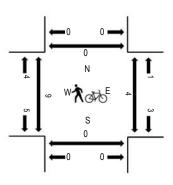
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

	W	OODS	IDE RI)	W	OODSI	DE RD			BAY	RD			BAY	RD							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	lestriar	rossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru F	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	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

		tbound			West	bound			Northb	ound			South	bound			
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

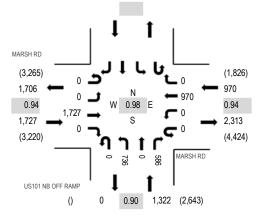


Location: 14 US101 NB OFF RAMP & MARSH RD AM

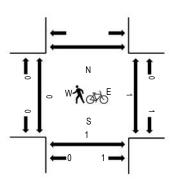
Date: Wednesday, September 5, 2018 **Peak Hour:** 07:30 AM - 08:30 AM

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

		MARS	H RD			MARS	H RD		US10	01 NB (OFF RA	MP										
Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Ped	lestria	n Cross	ings
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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	

		Eas	tbound			Westk	ound			North	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

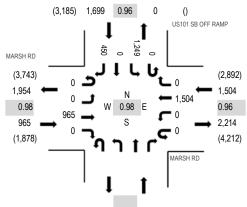


Location: 15 US101 SB OFF RAMP & MARSH RD AM

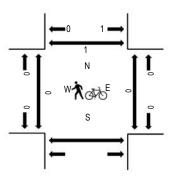
Date: Wednesday, September 5, 2018 **Peak Hour:** 07:30 AM - 08:30 AM

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

		MARS	H RD		- 1	MARSH	H RD					US10)1 SB (OFF RA	AMP						
Interval		Eastb	ound			Westb	ound			Northb	ound		South	oound			Rolling	Ped	lestriar	n Crossi	ings
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

		East	bound			West	bound			North	bound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turr	n Left	Thru	Right	Total
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

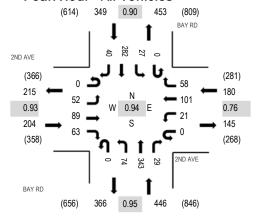


Location: 16 BAY RD & 2ND AVE AM **Date:** Wednesday, September 5, 2018

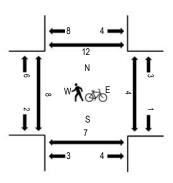
Peak Hour: 07:15 AM - 08:15 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

			2ND				2ND A				BAY				BAY								
	Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	lestriar	n Crossir	ngs
_	Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
	7:00 AM	0	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

		East	bound			Westk	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

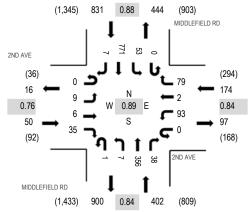


Location: 17 MIDDLEFIELD RD & 2ND AVE AM

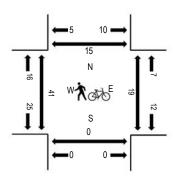
Date: Wednesday, September 5, 2018 **Peak Hour:** 07:15 AM - 08:15 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		2ND	AVE			2ND A	AVE		MI	DDLEF	IELD R	.D	MI	DDLEF	IELD R	.D						
Interval		Eastb	ound			Westb	ound			Northb	ound			South	ound			Rolling	Ped	lestriar	n Crossii	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

		Eastbound					oound			North	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

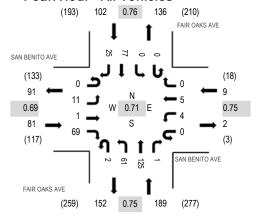


Location: 18 FAIR OAKS AVE & SAN BENITO AVE AM

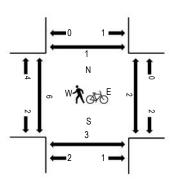
Date: Wednesday, September 5, 2018 **Peak Hour:** 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval	SA	SAN BENITO AVE Eastbound U-Turn Left Thru Right				N BENI Westb	TO AVE		F.A	AIR OAI Northb			F	AIR OA Southl	KS AV	E		Rolling	Ped	lestriar	n Crossii	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru F	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	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

		East	bound			Westk	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



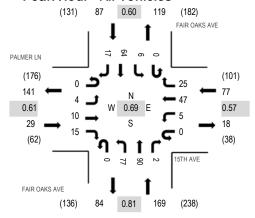
Location: 19 FAIR OAKS AVE & 15TH AVE AM

Date: Wednesday, September 5, 2018

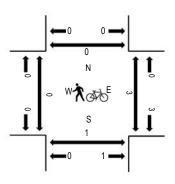
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval		PALMER LN Eastbound				15TH A			FA	AIR OAI Northb		Ē	F	AIR OA Southl		E		Rolling	Ped	lestriar	n Crossi	ngs
 Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

		bound			Westk	oound			Northb	ound			South	bound			
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

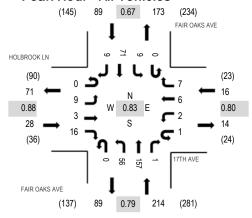


Location: 20 FAIR OAKS AVE & 17TH AVE AM

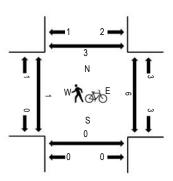
Date: Wednesday, September 5, 2018 **Peak Hour:** 07:30 AM - 08:30 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval	Н	OLBR(Eastb	OOK LI ound	N		17TH A			FA	AIR OAI Northb			F	AIR OA Southl		Ξ		Rolling	Ped	lestriar	n Crossir	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

		East	bound			West	oound			Northb	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

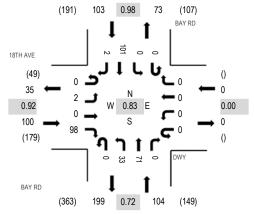


Location: 21 BAY RD & DWY AM

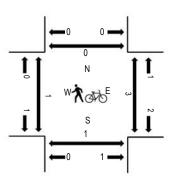
Date: Wednesday, September 5, 2018 **Peak Hour:** 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		18TH	AVE			DW.	Υ			BAY	RD			BAY	RD							
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	ound			Rolling	Ped	lestriar	n Crossii	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

		East	bound			West	oound			North	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

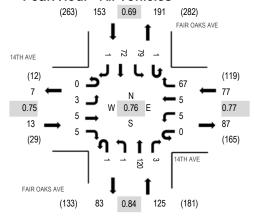


Location: 22 FAIR OAKS AVE & 14TH AVE AM

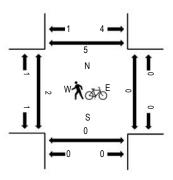
Date: Wednesday, September 5, 2018 **Peak Hour:** 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		14TH	AVE			14TH /	AVE		F.	AIR OAI	KS AVE		F/	AIR OA	KS AV	E						
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	ound			Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
7:00 AM	0	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

		East	bound			West	oound			North	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

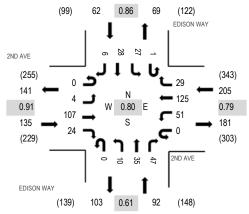


Location: 1 EDISON WAY & 2ND AVE PM Date: Wednesday, September 5, 2018

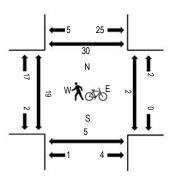
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		2ND	AVE			2ND A	AVE		E	EDISON	I WAY		E	EDISO	N WAY							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	ound			Rolling	Ped	lestriar	rossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

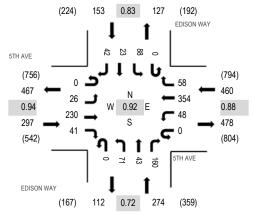


Location: 2 EDISON WAY & 5TH AVE PM **Date:** Wednesday, September 5, 2018

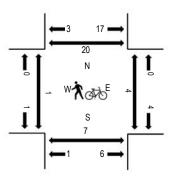
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

			5TH	AVE			5TH A	VΕ		E	EDISON	I WAY		1	EDISO	N WAY							
	Interval		Eastb	ound			Westb	ound			Northb	ound			South	ound			Rolling	Ped	destriar	n Crossi	ngs
_	Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
	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

		East	bound			Westk	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

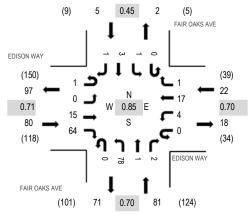


Location: 3 FAIR OAKS AVE & EDISON WAY PM

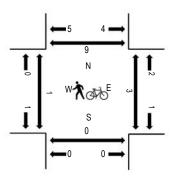
Date: Wednesday, September 5, 2018 **Peak Hour:** 02:45 PM - 03:45 PM

Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

	E	EDISOI	N WAY		E	DISON	WAY		F/	AIR OAI	KS AVE		F	AIR OA	KS AV	E						
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	oound			Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



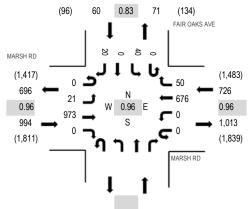
Location: 4 FAIR OAKS AVE & MARSH RD PM

Date: Wednesday, September 5, 2018

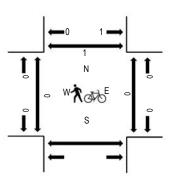
Peak Hour: 03:00 PM - 04:00 PM

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

		MARS				MARSH				N 1 (1.1			AIR OA		E						
Interval		Eastb	ound			Westb	ound			Northb	ound		Southb	ound			Rolling	Ped	estriar	n Crossing	js
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South N	lorth
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

			West	ound			North	bound			South	bound					
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

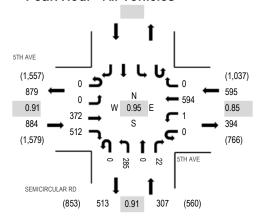


Location: 5 SEMICIRCULAR RD & 5TH AVE PM

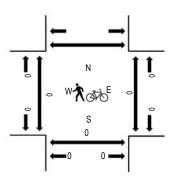
Date: Wednesday, September 5, 2018 **Peak Hour:** 03:00 PM - 04:00 PM

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		5TH .			5TH AVE Westbound					MCIRCI Northb		RD		South	oound			Rolling	Ped	destriar	n Crossi	ngs
 Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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	

		East	bound			Westk	oound			Northb	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



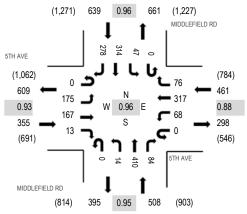
Location: 6 MIDDLEFIELD RD & 5TH AVE PM

Date: Wednesday, September 5, 2018

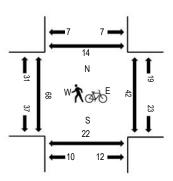
Peak Hour: 03:00 PM - 04:00 PM

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		5TH		VE 5TH AVE und Westbound					MII	DDLEFI Northb		D		DDLEF Southb		D		D ::	Dod	loctrion	n Crossii	nac
Start Time	U-Turn	Left	Thru	Right	U-Turn			Right	U-Turn	Left		Right	U-Turn	Left	Thru	Right	Total	Rolling Hour	West		South	0
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

		East	bound			Westk	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



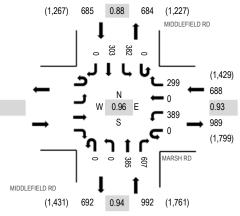
Location: 7 MIDDLEFIELD RD & MARSH RD PM

Date: Wednesday, September 5, 2018

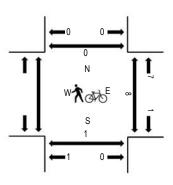
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

					I	MARSH	l RD		MII	DDLEFI	ELD R	D	MII	DDLEF	IELD R	.D						
Interval		Eastb	ound			Westb	ound			Northb	ound			South	ound			Rolling	Ped	destrian	Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
2:00 PM					0	110	0	67	0	0	62	128	0	71	59	0	497	2,092		0	0	0
2:15 PM					0	119	0	81	0	0	60	110	0	78	74	0	522	2,139		1	0	0
2:30 PM					0	110	0	65	0	0	67	142	0	74	66	0	524	2,233		1	0	0
2:45 PM					0	121	0	68	0	0	73	127	0	80	80	0	549	2,299		0	0	0
3:00 PM					0	103	0	75	0	0	75	136	0	100	55	0	544	2,365		1	0	0
3:15 PM					0	88	0	78	0	0	105	151	0	99	95	0	616			0	0	0
3:30 PM					0	96	0	69	0	0	98	167	0	79	81	0	590			3	0	0
3:45 PM					0	102	0	77	0	0	107	153	0	104	72	0	615			1	0	0

	Eas		Westb	ound			Northb	ound			South	bound				
Vehicle Type	U-Turn Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

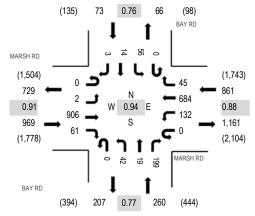


Location: 8 BAY RD & MARSH RD PM **Date:** Wednesday, September 5, 2018

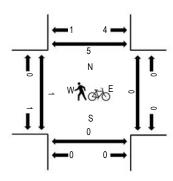
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		MARS	H RD			MARSH	H RD			BAY	RD			BAY	RD							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	ound			Rolling	Ped	lestriar	n Crossi	ngs
 Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

			West	ound			North	oound			South	bound					
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



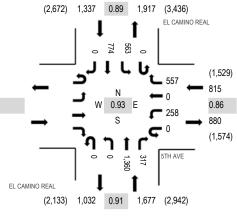
Location: 9 EL CAMINO REAL & 5TH AVE PM

Date: Wednesday, September 5, 2018

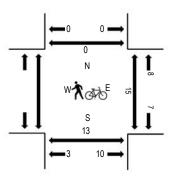
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

						5TH A	ΝE		EL	CAMIN	O REA	Ľ	EL	CAMIN	IO REA	λL						
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	oound			Rolling	Ped	destrian	Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

	East	tbound			Westb	ound			North	oound			South	bound		
Vehicle Type	U-Turn Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

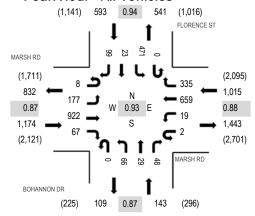


Location: 10 BOHANNON DR & MARSH RD PM

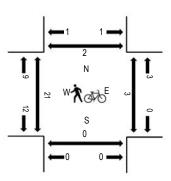
Date: Wednesday, September 5, 2018 **Peak Hour:** 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		MARS	H RD		I	MARSH	l RD		В	NAHC	ION DF	}	F	LORE	NCE ST							
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	oound			Rolling	Ped	lestriar	n Crossi	ngs
 Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

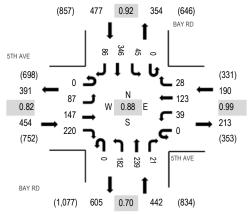


Location: 11 BAY RD & 5TH AVE PM Date: Wednesday, September 5, 2018

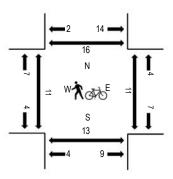
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		5TH	AVE			5TH A	VΕ			BAY	RD			BAY	RD							
Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	destriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			Westk	ound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

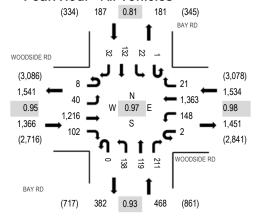


Location: 12 BAY RD & WOODSIDE RD PM Date: Wednesday, September 5, 2018

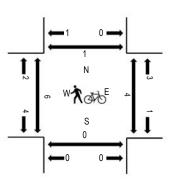
Peak Hour: 02:45 PM - 03:45 PM

Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval	W	OODS/ Eastb)		OODSI Westb	DE RD ound			BAY Northb				BAY South				Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru F	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	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

		Eas	tbound			West	bound			North	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

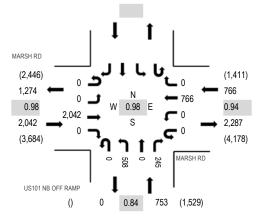


Location: 14 US101 NB OFF RAMP & MARSH RD PM

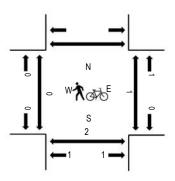
Date: Wednesday, September 5, 2018 **Peak Hour:** 03:00 PM - 04:00 PM

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

		MARSH RD Eastbound				MARSH	H RD		US10	01 NB (OFF RA	MP										
Interval		Eastb	ound			Westb	ound			Northb	ound			South	bound			Rolling	Ped	destriar	n Crossi	ings
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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	

		Eas	tbound			Westk	ound			North	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

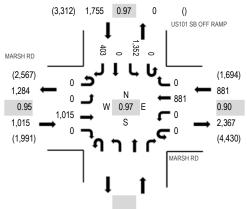


Location: 15 US101 SB OFF RAMP & MARSH RD PM

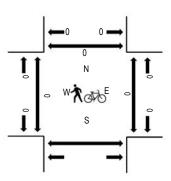
Date: Wednesday, September 5, 2018 **Peak Hour:** 02:45 PM - 03:45 PM

Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

			MARS	H RD			MARSH	H RD					US10)1 SB (OFF RA	MP						
	Interval		Eastb	ound			Westbo	ound			Northb	ound		Southb	ound			Rolling	Ped	lestriar	Crossing	S
	Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South No	orth
-	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

		Eas	tbound			Westk	ound			North	bound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turr	n Left	Thru	Right	Total
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

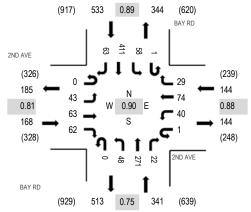


Location: 16 BAY RD & 2ND AVE PM **Date:** Wednesday, September 5, 2018

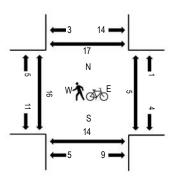
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:45 PM - 04:00 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval		2ND Eastb				2ND A				BAY Northb				BAY South				Rollina	Ped	lestriar	n Crossii	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			West	oound			Northb	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

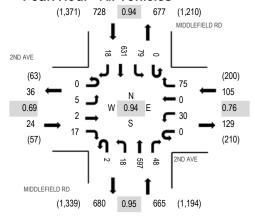


Location: 17 MIDDLEFIELD RD & 2ND AVE PM

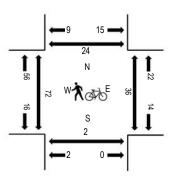
Date: Wednesday, September 5, 2018 **Peak Hour:** 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		2ND	AVE			2ND A	AVE		MI	DDLEF	ELD R	.D	MI	DDLEF	IELD R	RD						
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	oound			Rolling	Ped	lestriar	n Crossir	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			West	oound			North	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

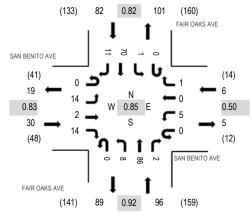


Location: 18 FAIR OAKS AVE & SAN BENITO AVE PM

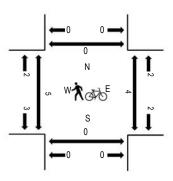
Date: Wednesday, September 5, 2018 **Peak Hour:** 03:00 PM - 04:00 PM

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

	SA	N BEN	IITO A\	/E	SAN	I BENI	TO AVE	Ξ	F.	AIR OAI	KS AVE		F	AIR OA	KS AV	E						
Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	destriar	n Crossii	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			West	oound			North	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

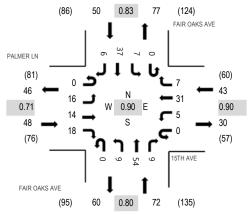


Location: 19 FAIR OAKS AVE & 15TH AVE PM

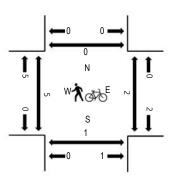
Date: Wednesday, September 5, 2018 **Peak Hour:** 02:45 PM - 03:45 PM

Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		PALMI	ER LN			15TH	AVE		F/	AIR OAI	KS AVE		F/	AIR OA	KS AV	E						
Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			West	oound			North	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

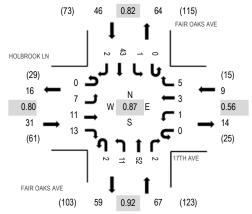


Location: 20 FAIR OAKS AVE & 17TH AVE PM

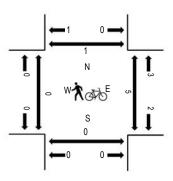
Date: Wednesday, September 5, 2018 **Peak Hour:** 02:45 PM - 03:45 PM

Peak 15-Minutes: 03:15 PM - 03:30 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

	Н	OLBRO	OOK LI	V		17TH /	AVE		F	AIR OAI	KS AVE		F	AIR OA	KS AV	E						
Interval		Eastb	ound			Westb	ound			Northb	ound			Southl	oound			Rolling	Ped	lestriar	n Crossi	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			West	oound			North	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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



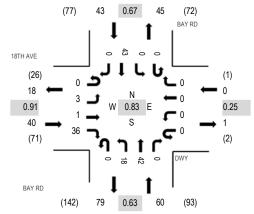
Location: 21 BAY RD & DWY PM

Date: Wednesday, September 5, 2018

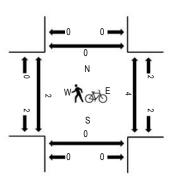
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

		18TH				DW				BAY				BAY								
Interval		Eastb	ound			Westb	ound			Northb	ound			South	oound			Rolling	Ped	destriar	n Crossii	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			West	oound			North	oound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

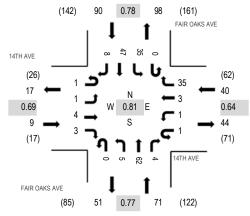


Location: 22 FAIR OAKS AVE & 14TH AVE PM

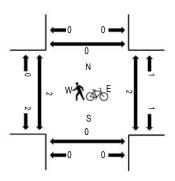
Date: Wednesday, September 5, 2018 **Peak Hour:** 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval		14TH Eastb				14TH / Westb			FA	AIR OAI Northb			F	AIR OA Southl		E		Rolling	Ped	lestriar	n Crossii	ngs
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total	Hour	West	East	South	North
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

		East	bound			West	oound			North	ound			South	bound		
Vehicle Type	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total
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

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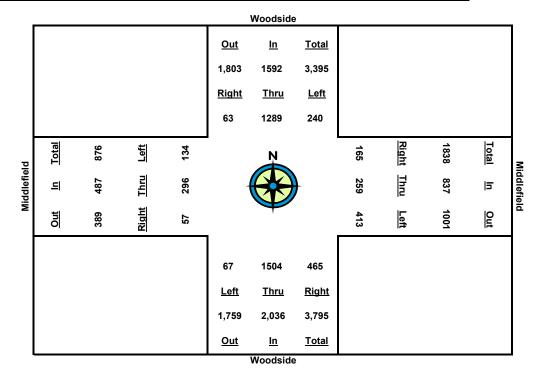
Traffic Monitoring and Analysis 870 Castlewood Dr. #1 Los Gatos, CA 95032

Phone 408-826-9673 Fax 408-877-1625

		Woo	dside			Middl	efield			Woo	dside			Middl	efield	
		North A	pproach			East App	roach			South Ap	proach			West A	proach	
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

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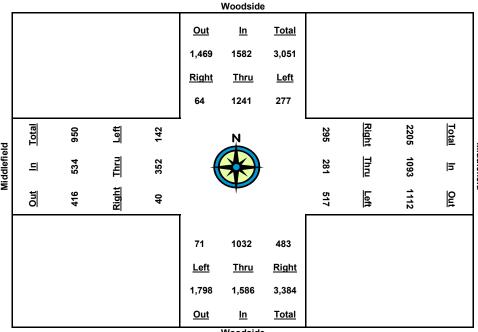
Traffic Monitoring and Analysis 870 Castlewood Dr. #1 Los Gatos, CA 95032

Phone 408-826-9673 Fax 408-877-1625

		Wood	dside			Middl	lefield			Woo	dside			Middl	lefield	
		North A	pproach			East App	roach			South Ap	proach			West A	pproach	
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



Woodside

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

870 Castlewood Dr. #1 Los Gatos, CA 95032

Phone 408-826-9673 Fax 408-877-1625

	Drivewa	ay 1 & 2	Drive	way 3	_	Drive	way 4	 Drivew	ay 5 & 6	Drive	way 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	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														Hourly Totals
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 Synapse School Intersection Name:

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

				sed			truction								
	Drivew	ay 1 & 2	Drive	way 3	_	Drive	eway 4	_	Drivew	ay 5 & 6	Drive	way 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	
															Hourly
Peak Hour															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 Intersection LOS	9.1
Intersection LOS	А

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	А			Α			Α			А		

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	А	Α	Α	А	
HCM 95th-tile Q	0.6	0.2	0.5	1.6	

Intersection					
Intersection Delay, s/v Intersection LOS	eh18.3				
Intersection LOS	С				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach R	igh N B			SB			WB			EB			
Conflicting Lanes Right	1			1			1			1			
HCM Control Delay	12			11			12.5			24.9			
HCM LOS	В			В			В			С			

Lane	NBLn1	EBLn1\	NBLn1	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	В	В	В	С
HCM 95th-tile Q	1.9	1.2	0.9	7.8

Existing AM.syn Synchro 10 Report Hexagon 12/18/2018

Intersection												
Int Delay, s/veh	5.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	LDL	4	LDK	WDL	₩ 4	WDK	NDL	NDT ♣	NDK	SDL	3BT	אטכ
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	1100	1100	None	-	-	None	310p	310p	None	Jiop	Jiop -	None
Storage Length	_	_	TNOTIC	_	_	-	_	_	TVOTIC	_	_	-
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
IVIVIII I IOVV		- 11	77				- 117	J	7	- 0	- 0	
	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	-
1 3	2.218	-	-	2.218	-	-	3.518	4.018			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	312			- 3.0			Α.			A		
							, ,			,,		
Minor Lang/Major Mum	+ 1	\IDI n1	EDI	EDT	EDD	WDI	WDT	WDD	CDI n1			
Minor Lane/Major Mvm	t I	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR	2RTII I			
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	Α	-	A	Α	-	Α			
HCM 95th %tile Q(veh)		0.5	0	-	-	0	-	-	-			

Intersection						
Int Delay, s/veh	0.7					
		EDD	NDI	NDT	CDT	CDD
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥			4	↑	7
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	e, # 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
N A = 1 = -/N A1	N 4' C		14-1-1		1-1-0	
	Minor2		Major1		/lajor2	
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			_		
Jiaye Z	410	-	-		_	-
Approach	EB		NB		SB	
HCM Control Delay, s	16.9		0.1		0	
HCM LOS	С					
Minor Lone /Maior M	o.t	NDI	NDT	FDI 1	CDT	CDD
Minor Lane/Major Mvm	nt	NBL		EBLn1	SBT	SBR
Capacity (veh/h)	nt	856	-	364	SBT -	SBR -
Capacity (veh/h) HCM Lane V/C Ratio		856 0.011	-	364 0.173	SBT - -	SBR -
Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s)		856 0.011 9.2	- - 0	364 0.173 16.9	-	-
Capacity (veh/h) HCM Lane V/C Ratio)	856 0.011	-	364 0.173	-	- -

Existing AM.syn Synchro 10 Report Hexagon 12/18/2018

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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	¥	TI DIC	†	TOIL .	UBL	↑ ↑
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
	1.00	1.00	U	1.00	1.00	U
Ped-Bike Adj(A_pbT) 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	1.00	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	0.00	2282	0.00	0.00	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	0.00	5.1	0.00	0.00	6.1
Incr Delay (d2), s/veh	1.4	0.0	0.1	0.0	0.0	0.1
	0.0	0.0	0.1	0.0	0.0	0.4
Initial Q Delay(d3),s/veh						
%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	В		A			A
Approach Vol, veh/h	457		339			856
Approach Delay, s/veh	10.1		5.2			6.6
Approach LOS	В		Α			Α
Timer	1	2	3	4	5	6
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+l1), s		3.7		8.5		7.1
Green Ext Time (p_c), s		2.1		0.1		4.2
4 – 7:		Z. I		U. I		4.∠
Intersection Summary						
HCM 2010 Ctrl Delay			7.3			
HCM 2010 LOS			Α			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44	7		414			र्स	7		र्स	7
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	С	C 070	В	С	221	<u>C</u>	D	242	С	D	400	<u>C</u>
Approach Vol, veh/h		878			331			343			420	
Approach Delay, s/veh		16.9			21.0			36.4			35.4	
Approach LOS		В			С			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+l1), 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			0.1.5									
HCM 2010 Ctrl Delay			24.9									
HCM 2010 LOS			С									

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EBL	EBT	WBT	WBR	SBL	SBR	
	1.00	1.00				
	10.7	7.5				
	1216	767				
			D		D	
	C	D		D		
1	2	3	4	5	6	7 8
	2		4	5	6	
	86.0		39.3	30.2	55.8	
	* 4.2		* 4.2	4.0	* 4.2	
	* 82		* 60	45.0	* 33	
	12.9		33.4	25.2	21.4	
	1.6		1.7	1.0	1.6	
		29.3				
		С				
	EBL 337 337 5 0 1.00 1.00 1863 337 1 1.00 2 371 0.21 1774 23.2 23.2 1.00 371 0.91 637 1.00 1.00 48.4 10.1 0.0 12.5 58.4 E	EBL EBT 337 374 337 374 5 2 0 0 1.00 1.00 1.00 1863 1863 337 374 1 1 1.00 1.00 2 2 371 1216 0.21 0.65 1774 1863 337 374 1774 1863 23.2 10.9 23.2 10.9 23.2 10.9 1.00 371 1216 0.91 0.31 637 1216 1.00 1.00 1.00 1.00 48.4 9.4 10.1 0.7 0.0 0.0 12.5 5.8 58.4 10.1 E B 711 33.0 C 1 2 86.0 *4.2 *82 12.9	EBL EBT WBT 337 374 213 337 374 213 5 2 6 0 0 0 0 1.00 1.00 1.00 1.00 1863 1863 1863 337 374 213 1 1 1 1.00 1.00 1.00 2 2 2 2 371 1216 767 0.21 0.65 0.41 1774 1863 1863 337 374 213 1774 1863 1863 23.2 10.9 9.5 23.2 10.9 9.5 1.00 371 1216 767 0.91 0.31 0.28 637 1216 767 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.01 0.00 1.01 0.00 1.02 1.05 5.8 5.1 58.4 10.1 25.4 E B C 711 726 33.0 14.8 C B 1 2 3 29.3	EBL EBT WBT WBR 1 1 1 1 337 374 213 513 337 374 213 513 5 2 6 16 0 0 0 0 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1863 1863 1863 1863 337 374 213 513 1 1 1 1 1.00 1.00 1.00 1.00 2 2 2 2 371 1216 767 1075 0.21 0.65 0.41 0.41 1774 1863 1863 1535 337 374 213 513 1774 1863 1863 1535 23.2 10.9 9.5 19.4 23.2 10.9 9.5 19.4 <td>EBL EBT WBT WBR SBL 337 374 213 513 458 337 374 213 513 458 5 2 6 16 7 0 0 0 0 0 1.00 1.00 1.00 1.00 1863 1863 1863 1863 337 374 213 513 458 1 1 1 1 1 1 1.00 1.00 1.00 1.00 1.00 1863 1863 1863 1863 1863 337 374 213 513 458 1774 1863 1863 1535 1774 337 374 213 513 458 1774 1863 1863 1535 1774 337 374 213 513 458 1774 1863 1863 <</td> <td>EBL EBT WBT WBR SBL SBR 337 374 213 513 458 238 337 374 213 513 458 238 5 2 6 16 7 14 0 0 0 0 0 0 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1863 1863 1863 1863 1863 1863 3683 337 374 213 513 458 238 1 1 1 1 1 1 1 1 1.00 1.00 1.00 1.00 1.00 1.00 1.00 2</td>	EBL EBT WBT WBR SBL 337 374 213 513 458 337 374 213 513 458 5 2 6 16 7 0 0 0 0 0 1.00 1.00 1.00 1.00 1863 1863 1863 1863 337 374 213 513 458 1 1 1 1 1 1 1.00 1.00 1.00 1.00 1.00 1863 1863 1863 1863 1863 337 374 213 513 458 1774 1863 1863 1535 1774 337 374 213 513 458 1774 1863 1863 1535 1774 337 374 213 513 458 1774 1863 1863 <	EBL EBT WBT WBR SBL SBR 337 374 213 513 458 238 337 374 213 513 458 238 5 2 6 16 7 14 0 0 0 0 0 0 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1863 1863 1863 1863 1863 1863 3683 337 374 213 513 458 238 1 1 1 1 1 1 1 1 1.00 1.00 1.00 1.00 1.00 1.00 1.00 2

Existing AM.syn Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4	7		4î		ň	∱ 1≽	
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	С			С		Α		D	D	В	Α	А
Approach Vol, veh/h		209			263			821			1079	
Approach Delay, s/veh		32.2			13.1			44.9			9.4	
Approach LOS		C			В			D			Α	
	1		2	4		,	7				, ,	
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+l1), 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			С									
Notes												
* HCM 2010 computational en	gine requ	uires equa	al clearan	ce times	for the ph	ases cros	ssing the	barrier.				

Existing AM.syn Hexagon

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Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	ካካ	† ††	<u>₩</u>	WDK	JDL N	JDK TT		
Traffic Volume (veh/h)	561	1670	595	170	519	773		
Future Volume (veh/h)	561	1670	595	170	519	773		
Number	1	6	2	170	3	18		
Initial Q (Qb), veh	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	U	U	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	1700	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	1.00	2	1.00	2	1.00		
Cap, veh/h	676	2755	1140	317	621	1522		
•	0.20	0.54	0.29	0.29	0.35	0.35		
Arrive On Green	3442	5253	4083	1089	1774	2787		
Sat Flow, veh/h								
Grp Volume(v), veh/h	561	1670	513	252	519	773		
Grp Sat Flow(s), veh/h/ln	1721	1695	1695	1615	1774	1393		
2 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		
Jpstream 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		
_nGrp Delay(d),s/veh	34.3	12.5	23.8	26.3	28.7	10.8		
nGrp LOS	С	В	С	С	С	В		
Approach Vol, veh/h		2231	765		1292			
Approach Delay, s/veh		18.0	24.6		18.0			
Approach LOS		В	С		В			
rimer	1	2	3	4	5	6	7 8	
Assigned Phs	<u> </u>	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+l1), s	13.6	11.7				18.5	21.8	
Green Ext Time (p_c), s	0.9	2.6				12.7	4.0	
η — ,	0.7	۷.0				14.7	4.0	
ntersection Summary			19.2					
HCM 2010 Ctrl Delay								
HCM 2010 LOS			В					

	۶	→	•	•	—	•	•	†	~	>		- ✓
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ň	4	7	ň	f)		ħ	† †	7	ň	† †	7
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(q_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	Е		Е	Е		Е	В	Α	А	F	D	С
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	J	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 (q_c+l1), 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				
ų — <i>,</i>	0.0	10.2		0.2	U. I	13.7		1.0				
Intersection Summary			27.0									
HCM 2010 Ctrl Delay			37.9									
HCM 2010 LOS D												
Notes		., .		_								
User approved volume balanci	ng amoi	ng the lan	es for turi	ning move	ement.							

Existing AM.syn Hexagon

HCM Control Delay

HCM Lane LOS

HCM 95th-tile Q

22.3 21.2

С

3

С

2.8

14

В

0.3

33.4

D

5.4

13.3

В

0.5

23.9 47.1

Ε

8.2

С

3.2

31.6

D

4.9

Intersection													
Intersection Delay, s/vel	า30.6												
Intersection LOS	D												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	ሻ	†	7	ሻ	1			र्स	7		4		
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 Le	ft SB			NB			EB			WB			
Conflicting Lanes Left	1			2			3			2			
Conflicting Approach Rig	ghNB			SB			WB			EB			
Conflicting Lanes Right	2			1			2			3			
HCM Control Delay	28.1			38.3			21.7			31.6			
HCM LOS	D			Ε			С			D			
Lane	1	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3\	VBLn1\	VBLn2	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 (Ho	d)	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				
Сар		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				
HOMO LIBI		00.0	04.0		00.4	40.0	00.0	47.4	04 /				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		41₽			€î₽		7	ተተኈ		7	† †	7
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	0.7	0.00	0.83	0.0	0.60	1.00	07.10	0.19	1.00	00.7	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	0.0	E	0.0	E	F	F	F	E	C	0.0
Approach Vol, veh/h		143			566		-	1633	-		1465	
Approach Delay, s/veh		51.5			68.7			134.5			29.5	
Approach LOS		D D			E			F			C C	
•											0	
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									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	∱ 1>		ሻሻ	†	7	*	^	7	ሻሻ	† †	7
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 LnGrp Delay(d),s/veh	6.7 91.2	8.5 84.6	8.8 88.3	9.6 78.0	12.0 75.5	6.2 50.7	3.3 90.0	25.8 29.5	9.0 11.6	5.7 84.4	18.3 21.8	0.9 8.4
LnGrp LOS	91.2 F	04.0 F	00.3 F	76.0 E	75.5 E	30.7 D	90.0 F	29.5 C	11.0 B	04.4 F	21.0 C	
	г		Г	<u>E</u>		U	Г		D	Г		A
Approach Vol, veh/h		487 87.8			837 71.9			2036 27.4			1592 30.7	
Approach Delay, s/veh Approach LOS		67.6 F			71.9 E			27.4 C			30.7 C	
Approach LOS		Г			L			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+l1), 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 righ	nt turn typ	oe.										

Existing AM.syn Hexagon

	•	•	<u></u>		<u> </u>		
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	VVDL	77 T	<u>₩</u>	NDIX	JDL	<u>361</u>	
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	970	
Initial Q (Qb), veh	0	0	0	0	0	0	
• •	1.00	1.00	U	1.00	1.00	U	
Ped-Bike Adj(A_pbT) 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	730	2	2	0	0	970	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Percent Heavy Veh, %	2	1.00	1.00	0	0	2	
,	915	741	2232			2232	
Cap, veh/h Arrive On Green	0.27	0.27	0.63	0.00	0.00	0.63	
Sat Flow, veh/h	3442	2787	3725	0.00	0.00	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	0000	0.00	0.00	2000	
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	С	С	В			A	
Approach Vol, veh/h	1322		1727			970	
Approach Delay, s/veh	31.5		12.2			8.1	
Approach LOS	С		В			А	
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+l1), s		30.2				13.2	18.0
Green Ext Time (p_c), s		11.7				8.4	3.3
ntersection Summary							
HCM 2010 Ctrl Delay			17.6				
HCM 2010 LOS			В				
10.11. 2010 200			D				

	•	•	•	<u>†</u>	+	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	ሻሻ	T T		†	†	
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	0.00	3725	3725	0.00
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	14.δ	U.U	0.00
		619		1792	1792	0.00
Lane Grp Cap(c), veh/h	1346		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	1.00	1792	1792	1.00
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	С	С		В	А	
Approach Vol, veh/h	1699			965	1504	
Approach Delay, s/veh	31.0			14.6	3.9	
Approach LOS	С			В	А	
Timer	1	2	3	4	5	6
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 (q_c+I1), s		16.8		29.7		2.0
Green Ext Time (p_c), s		4.9		1.6		10.4
Intersection Summary						
			17.4			
HCM 2010 Ctrl Delay			17.4			
HCM 2010 LOS			В			

HCM 95th-tile Q

1.6

1.3

1.4

2.2

1.5

1.3

Intersection												
Intersection Delay, s/ve	h12 7											
Intersection LOS	1112.7 B											
Intersection LOS	U											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT		NBR	NBR SBL	
Lane Configurations		474			4TÞ			4				4
Traffic Vol, veh/h	27	282	40	74	343	29	52	89		63		
Future Vol, veh/h	27	282	40	74	343	29	52	89		63		
Peak Hour Factor	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		
Mvmt Flow	27	282	40	74	343	29	52	89	63	}	21	21 101
Number of Lanes	0	2	0	0	2	0	0	1	0		0	0 1
Approach	EB			WB			NB				SB	SB
Opposing Approach	WB			EB			SB				NB	
Opposing Lanes	2			2			1				1	
Conflicting Approach Le				NB			EB				WB	· ·
Conflicting Lanes Left	1			1			2				2	
Conflicting Approach Ri				SB			WB				EB	
Conflicting Lanes Right				1			2				2	
HCM Control Delay	12.1			13.4			12.8			12		
HCM LOS	12.1 B			13.4			12.0 B					
HOW LOS	D			D			U			В		
		IDI 4	EDI (EDL C	NDL C	NDI 5	001 1					
Lane	N					WBLn2						
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 (Ho	d)	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		В	В	В	В	В	В					
LICM OF the tile O		1 /	1 2	1 /	2.2	1 г	1 2					

Intersection												
Int Delay, s/veh	6.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		414			4ÎÞ			4			4	
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 N	/lajor1		N	Major2		I	Minor1		N	/linor2		
Conflicting Flow All	425	0	0	794	0	0	1092	1338	430	942	1322	228
Stage 1	720	-	-	7 7 -	-	-	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	0.74	6.54	5.54	0.74
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, %		_	_		_	_	. 00	- 5,5		- 507	300	
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	_
- 19												
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.8			0.3			20.2			40.9		
HCM LOS	0.0			0.5			20.2 C			40.9 E		
TOW LOS										<u> </u>		
Minor Lane/Major Mvm	· 1	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SRI n1			
	. 1	287	1102		LDK			WDIX .				
Capacity (veh/h) HCM Lane V/C Ratio				-	-	812	-	-	266 0.654			
		0.174		- 0.2	-	0.01	- 0 1	-				
HCM Lang LOS		20.2	8.4	0.3	-	9.5	0.1	-	40.9			
HCM Lane LOS HCM 95th %tile Q(veh)		C 0.6	A 0.2	А	-	A 0	A -	-	4.2			
		0.0	U.Z	-	-	U		-	4.2			

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Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		44			4			4			44	
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	2,# -	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 I	Major1			Major2		1	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	-
g- =												
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.5			9.5			11.9		
HCM LOS							A			В		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		877	1450	_		1488	_	_	528			
HCM Lane V/C Ratio		0.092	- 1.00	_		0.042	_	_	0.017			
HCM Control Delay (s)		9.5	0		_	7.5	0		11.9			
HCM Lane LOS		Α	A	_	_	Α.5	A	_	В			
HCM 95th %tile Q(veh)	0.3	0		_	0.1	-	_	0.1			
1.3W 70W 70W Q(VCI)		0.0	U			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		4			4			4			4	
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	e,# -	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 I	Major1		ı	Major2			Minor1		ı	Minor2		
Conflicting Flow All	94	0	0	83	0	0	369	335	76	345	342	94
Stage 1	74	-	U	0.5	-	-	87	87	70	247	247	74
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	- 0.22	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		3.318	3.518	4.018	
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	-
Annroach	EB			WB			NB			SB		
Approach	0.5			3.4			10.3			11.5		
HCM Control Delay, s HCM LOS	0.5			3.4			10.3 B			11.5 B		
TICIVI LUS							Ď			D		
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		702	1498	-	-	1511	-	-	635			
HCM Lane V/C Ratio			0.004	-	-	0.051	-	-	0.121			
HCM Control Delay (s)		10.3	7.4	0	-	7.5	0	-				
HCM Lane LOS		В	Α	Α	-	Α	Α	-	В			
HCM 95th %tile Q(veh))	0.1	0	-	-	0.2	-	-	0.4			

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Intersection	6 -											
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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	109	-	-	- 00	-	-	94	94	70	271	271	100
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	T. 1Z		_	7.12	_	_	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 2	_				_		6.12	5.52	_	6.12	5.52	_
Follow-up Hdwy	2.218	_	_	2.218	_	_	3.518		3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1420	-	_	1518	_	-	586	563	983	581	560	885
Stage 1	- 120	_	_	-	_	_	913	817	703	735	685	-
Stage 2	-	-	-	-	-	-	729	685	-	901	814	-
Platoon blocked, %		-	-		_	_	/	300			J11	
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	-
- 19-												
0	ED			MD			ND			CD		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	8.0			2			10.1			10.7		
HCM LOS							В			В		
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)		735	1419	-	-	1518	-	-	649			
HCM Lane V/C Ratio			0.006	-	-	0.037	_	-	0.025			
HCM Control Delay (s)		10.1	7.6	0	-	7.5	0	-				
HCM Lane LOS		В	A	A	-	A	A	-	В			
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	<u>₽</u>	LDI	VVDL	₩ •1	NDL W	אטוז
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
ğ .	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	310p -	None
Storage Length	-	NONE -	-	None -	0	NUITE -
Veh in Median Storage,			_	0	0	
Grade, %	# 0 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 Major/Minor	ajor1	N	Major2	N	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			3.318
Pot Cap-1 Maneuver	_	_	1485	_	773	949
Stage 1	_	_	1405	_	919	747
Stage 2	-				908	-
Platoon blocked, %	-	-	-	-	900	-
		-	1481		752	947
Mov Cap-1 Maneuver	-	-	1401	-		
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			2		A	
					, \	
Minor Lane/Major Mvmt	1	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		Α	-	-	Α	Α
HCM 95th %tile Q(veh)		0.4	-	-	0.1	-

Existing AM.syn Synchro 10 Report Hexagon 12/18/2018

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	2,# -	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 I	Major1			Major2		1	Minor1			Minor2		
Conflicting Flow All	125	0	0	74	0	0	397	363	74	366	362	125
Stage 1	120	-	-	-	-	-	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	- 0.22	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	- 102	_	_	-	-	_	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	7			0.1			В			Α		
1.0W E00							U			,,		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SRI n1			
	it l						VVDI	WDK.				
Capacity (veh/h) HCM Lane V/C Ratio		633	1460	-		1525	-	-	847			
			0.055	-	-	0.001	-	-	0.091			
HCM Long LOS		10.8	7.6	0	-	7.4	0	-	9.7			
HCM Lane LOS	١	B	A	Α	-	A	А	-	A			
HCM 95th %tile Q(veh))	0.1	0.2	-	-	0	-	-	0.3			

ntersection	
ntersection Delay, s/veh	8.5
ntersection Delay, s/veh ntersection LOS	А

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			₩			4	
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	Α			Α			Α			Α		

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	А	Α	Α	Α	
HCM 95th-tile Q	0.6	0.3	0.4	1	

Intersection Delay, s/veh18.8 Intersection LOS C	Intersection							
Intersection LOS C	Intersection Delay, s/	veh18.8						
	Intersection LOS	С						

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach R	ightNB			SB			WB			EB			
Conflicting Lanes Right	1			1			1			1			
HCM Control Delay	12.8			15.1			15.7			25			
HCM LOS	В			С			С			С			

Lane	NBLn1	EBLn1\	VBLn1	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	С	В	С	С
HCM 95th-tile Q	2.9	1.2	2.6	6.8

Intersection												
Intersection Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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 N	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	18	0	0	80	0	0	78	76	48	77	108	18
Stage 1	-	-	<u>.</u>	-	-	-	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	₩. IZ	-		4 .1∠	_	-	6.12	5.52	0.22	6.12	5.52	0.22
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
•	1377	-	-	1310	-	-	963	853	1021	912	874	1001
Stage 1 Stage 2	-	-	-	-	-	-	989	874		962	827	-
Platoon blocked, %	•	•	-	-	-		707	0/4	-	902	027	-
	1500	-	-	1517	-	-	004	810	1020	907	778	1061
Mov Cap-1 Maneuver	1599		-	1317	-	-	904				778	1001
Mov Cap-2 Maneuver	-	-	-	-	-	-	904	810	-	907		-
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							Α			Α		
Minor Lane/Major Mvm	t N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SRI n1			
Capacity (veh/h)	- 1	905	1599	- -	LDIX	1517	-	VVDIX -	847			
HCM Lane V/C Ratio			0.001									
		0.09 9.4	7.3	-	-	0.003 7.4	-		0.006 9.3			
HCM Lang LOS				0	-		0	-				
HCM Lane LOS		A	A	Α	-	A	А	-	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	⊢ LDL	LDI	NDL	<u>₩</u>	<u>301</u>	3DIX 7
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		-	-	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
Naisa/Naissa	Minara		\		1-:0	
	Minor2		Major1		/lajor2	<u> </u>
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, %	330			_	_	_
	96	451	873	-		-
Mov Cap 2 Manager				-	-	-
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	10.0 C		0.2		U	
HOW LUS	C					
Minor Lane/Major Mvn	nt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)		873			-	_
HCM Lane V/C Ratio		0.024		0.187	_	_
HCM Control Delay (s))	9.2	0	18.8	_	_
HCM Lane LOS		Α.Ζ	A	C	-	_
HCM 95th %tile Q(veh)	0.1	- A	0.7	-	-
HOW YOU WILL CALLED)	0.1	-	0.7		-

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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	WDL	WDIX	† ₽	אטוי	JUL	<u>361</u>
Traffic Volume (veh/h)	285	22	372	512	0	594
Future Volume (veh/h)	285	22	372	512	0	594 594
Number	200 7	14	2	12	1	6
		0				
Initial Q (Qb), veh	0		0	0	1.00	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
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	0.00	3516	0.00	0.00	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	0.00	4.0	0.00	0.00	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	Α		A			A
Approach Vol, veh/h	308		372			594
Approach Delay, s/veh	8.7		4.1			4.5
Approach LOS	Α		Α			Α
Timer	1	2	3	4	5	6
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
						4.4
Max Q Clear Time (g_c+l1), s		3.4		5.3		
Green Ext Time (p_c), s		2.5		0.1		3.5
Intersection Summary						
HCM 2010 Ctrl Delay			5.4			
HCM 2010 LOS			Α			
2010 200			* *			

Existing PM.syn Synchro 10 Report Hexagon 12/18/2018

	•	→	•	•	-	•	•	<u>†</u>	<u></u>	<u> </u>	 	- ✓
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		41∱	7		€Î∌			€Î	7		4	7
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	8.0	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	С	С	Α	С		С	D		С	D		С
Approach Vol, veh/h		639			508			355			461	
Approach Delay, s/veh		16.5			22.9			37.1			35.1	
Approach LOS		В			С			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+l1), s		14.1		18.7		12.5		20.5				
Green Ext Time (p_c), s		3.4		2.2		3.3		2.8				
		0.1										
Intersection Summary		0.1										
Intersection Summary HCM 2010 Ctrl Delay HCM 2010 LOS		0.1	26.2 C									

	۶	→	•	•	>	4	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	ሻ	†	†	7	ሻ	7	
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	
nitial 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	362 1774	1863	1863	1535	1774	1583	
2 Serve(g_s), s	27.0	7.6	19.0	27.4	27.3	15.8	
	27.0	7.6	19.0	27.4	27.3	15.8	
Cycle Q Clear(g_c), s		7.0	19.0				
Prop In Lane	1.00	1202	004	1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	409	1292	804	1044	427	746	
//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	
Jpstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Jniform Delay (d), s/veh	48.3	7.2	26.1	11.4	47.3	22.1	
ncr Delay (d2), s/veh	15.1	0.4	2.0	2.4	13.6	0.3	
nitial 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	
.nGrp Delay(d),s/veh	63.4	7.6	28.1	13.7	60.9	22.3	
nGrp LOS	<u>E</u>	A	С	В	E	С	
Approach Vol, veh/h		685	992		688		
Approach Delay, s/veh		38.7	19.3		44.1		
Approach LOS		D	В		D		
imer	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+l1), s		9.6		29.3	29.0	29.4	
Green Ext Time (p_c), s		1.2		1.5	0.5	2.6	
4 – <i>7</i>		1.2		1.0	0.5	2.0	
ntersection Summary			22.1				
HCM 2010 Ctrl Delay			32.1				
HCM 2010 LOS			С				
Notes							
* HCM 2010 computational en	gine requ	ires equa	al clearan	ce times t	for the ph	ases cros	ssing the barrier.

Existing PM.syn Hexagon

	•	→	•	•	←	•	•	†	~	>	↓	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4	7		ፋቤ		ň	↑ ↑	
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	C
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	C
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	Е			Е		В	Е		Е	С	Α	А
Approach Vol, veh/h		73			260			969			861	
Approach Delay, s/veh		64.4			24.5			57.7			5.8	
Approach LOS		E			С			Е			А	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	<u> </u>	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+l1), 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		0.9				
Intersection Summary												
HCM 2010 Ctrl Delay			33.2									
HCM 2010 LOS			33.2 C									
Notes												
* HCM 2010 computational en	gine req	uires equa	al clearan	ce times	for the ph	ases cros	ssing the	barrier.				

Existing PM.syn Hexagon

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Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	P)	† ††	↑ ↑↑	WDK	3DL N	JDR 777		
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	U	U	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	3.9	19.3	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	31.9 C	4.2 A	21.0 C	25.5 C	30.5 C	13.7 B		
Approach Vol, veh/h	<u> </u>	1337	1677		815	D		
Approach Delay, s/veh		15.9	22.4		20.3			
Approach LOS		15.9 B	22.4 C		20.3 C			
Approach LOS		D						
Timer	1	2	3	4	5	6	7	3
Assigned Phs	1	2				6		3
Phs Duration (G+Y+Rc), s	17.4	32.6				50.0	17.	
Change Period (Y+Rc), s	4.0	4.0				4.0	4.)
Max Green Setting (Gmax), s	16.0	26.0				46.0	16.	
Max Q Clear Time (g_c+l1), s	12.6	21.4				5.9	12.	
Green Ext Time (p_c), s	0.8	3.7				6.1	1.	3
ntersection Summary								
HCM 2010 Ctrl Delay			19.7					
HCM 2010 LOS			В					

Existing PM.syn Synchro 10 Report Hexagon 12/18/2018

	•	→	•	•	-	•	1	†	~	/	+	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	र्स	7	ሻ	f)		7	† †	7	7	† †	7
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/In	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	В	Α	Е	В	А
Approach Vol, veh/h		586			143			1174			1015	
Approach Delay, s/veh		40.9			45.0			59.0			14.0	
Approach LOS		D			D			Е			В	
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+l1), 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 inte	rval to be	e less tha	n phase r	nax greei	1.							

Existing PM.syn Hexagon

HCM 95th-tile Q

Intersection												
Intersection Delay, s/veh	า29.1											
Intersection LOS	D											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR		SBL	SBL SBT
Lane Configurations	ሻ	†	7	ሻ	f)			4	7			4
Traffic Vol, veh/h	45	346	86	182	239	21	87	147	220		39	39 123
Future Vol, veh/h	45	346	86	182	239	21	87	147	220		39	39 123
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	39 123
Number of Lanes	1	1	1	1	1	0	0	1	1		0	0 1
Approach	EB			WB			NB				SB	SB
Opposing Approach	WB			EB			SB				NB	NB
Opposing Lanes	2			3			1				2	2
Conflicting Approach Let	ft SB			NB			EB			V	٧B	√ B
Conflicting Lanes Left	1			2			3				2	2
Conflicting Approach Rig	ghNB			SB			WB			EB	}	}
Conflicting Lanes Right	2			1			2			3		
HCM Control Delay	40			25.7			23.3			23.7		
HCM LOS	Е			D			С			С		
Lane	N	IBLn1 I	NBLn2	EBLn1	EBLn2	EBLn3\	VBLn1\	WBLn2	SBLn1			
Vol Left, %		37%		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			0.874	0.2	0.494	0.664	0.53			
Departure Headway (Hd			8.521	9.616		8.37		9.198				
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				0.201		0.662				
HCM Control Delay		26.2	20.3	13.7	50	13.3	21.8	28.5	23.7			
HCM Lane LOS		D	С	В	Ε	В	С	D	С			
LICM OF the tile O		2.0	2.0	0.4	0.7	0.7	2 /	1 /	2			

Existing PM.syn Synchro 10 Report 12/18/2018 Hexagon

2.6

4.6

3

8.7

0.7

3.9

2.9

0.4

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Movement	EBL	EBT	EBR	₩BL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	LDL	413	LDI	VVDL	4P	WDIX	NDL	†††	NDIX	JDL	<u> </u>	7 JUK
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	В	
Approach Vol, veh/h		155			468			1366			1513	
Approach Delay, s/veh		59.6			72.4			63.4			23.2	
Approach LOS		E			E			Е			С	
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									

Existing PM.syn Synchro 10 Report Hexagon 12/18/2018

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ħ	ħβ		ሻሻ	†	7	**	^	7	777	† †	7
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	Е	D	С	E	С	Α	E	С	В
Approach Vol, veh/h		534			1093			1586			1582	
Approach Delay, s/veh		64.1			46.0			22.6			30.8	
Approach LOS		Е			D			С			С	
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 (q_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 righ	nt turn ty	pe.										

Existing PM.syn Hexagon

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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	ሻሻ	777	† †	NDIX	JDL	† †	
Traffic Volume (veh/h)	508	245	2042	0	0	766	
Future Volume (veh/h)	508	245	2042	0	0	766	
Number	3	18	2042	12	1	6	
Initial Q (Qb), veh	0	0	0	0	0	0	
. ,	1.00	1.00	U	1.00	1.00	U	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	
Parking Bus, Adj Adj Sat Flow, veh/h/ln	1863	1863	1863	0	0	1863	
	508	245	2042			766	
Adj Flow Rate, veh/h Adj No. of Lanes	2	245	2042	0	0	700	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	
	1.00	1.00	1.00	0	0	1.00	
Percent Heavy Veh, %	670		2484			2484	
Cap, veh/h		542		0 00	0 00	0.70	
Arrive On Green	0.19	0.19	0.70	0.00	0.00		
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	С	С	В			Α	
Approach Vol, veh/h	753		2042			766	
Approach Delay, s/veh	31.2		10.2			4.9	
Approach LOS	С		В			Α	
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+l1), s		34.5				8.6	13.2
Green Ext Time (p_c), s		10.3				6.3	2.4
,, — ,		10.5				0.5	2.4
Intersection Summary			10 5				
HCM 2010 Ctrl Delay			13.5				
HCM 2010 LOS			В				

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	•	*	1	†	¥	∢
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	1,1	7		† †	^	
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	0.00	3725	3725	0.00
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	С	В		В	Α	
Approach Vol, veh/h	1755			1015	881	
Approach Delay, s/veh	25.4			17.7	2.7	
Approach LOS	C			В	Α	
				U		
Timer	1	2	3	4	5	6
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+l1), 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 Cur belay			17.0 B			
HOW ZUTU LUS			D			

Intersection					
Intersection Delay, s/ve Intersection LOS	h12.6				
Intersection LOS	В				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		€Î}•			47>			4			4		
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 L	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			2			2			
Conflicting Approach R	RightNB			SB			WB			EB			
Conflicting Lanes Righ	t 1			1			2			2			
HCM Control Delay	13.6			11.8			11.8			11.6			
HCM LOS	В			В			В			В			

Lane	NBLn1	EBLn1	EBLn2V	VBLn1V	VBLn2	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	В	В	В	В	В	В			
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		414			4Te			4			4	
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 M	ajor1			Major2		_ N	/linor1		_ \	/linor2		
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	1.0			0.7			C C			20.3 D		
TOW LOO										U		
		IDI 6	EDI	EDT	EDE	MDI	MDT	WDE :	201 (
Minor Lane/Major Mvmt	N	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR S				
Capacity (veh/h)		258	887	-	-	908	-	-	272			
HCM Lane V/C Ratio		0.093		-	-	0.022	-		0.386			
HCM Control Delay (s)		20.4	9.5	0.5	-	9.1	0.1	-	26.3			
HCM Lane LOS		С	A	Α	-	A	Α	-	D			
HCM 95th %tile Q(veh)		0.3	0.3	-	-	0.1	-	-	1.7			

Intersection												
Int Delay, s/veh	1.9											
		EDT	EDD	MDI	MOT	14/00	NDI	NDT	NDD	001	ODT	000
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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 N	Major1			Major2		1	Minor1		1	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	4.12	_	_	4.12	_	_	6.12	5.52	0.22	6.12	5.52	0.22
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	1303			1010			930	829	703	898	807	703
Stage 2	_		_	_	_	_	901	806	_	921	825	
Platoon blocked, %						_	701	000		/21	UZJ	
Mov Cap-1 Maneuver	1498		_	1514	_	_	771	700	981	745	696	961
Mov Cap-1 Maneuver	1470			1014			771	700	701	745	696	701
Stage 1	-	-	-	-	-	-	928	827	-	894	800	-
Stage 2							894	799	-	904	823	
Jiayt 2	_	_	_	_	-	_	074	177	_	704	023	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.6			9.4			9.7		
HCM LOS							Α			Α		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		850	1498			1514	-	-				
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		7.4 A	7.4 A	A	-	7.4 A	A	-	7.7 A			
HCM 95th %tile Q(veh))	0.1	0	- -	-	0	- A	-	0			
HOW 75th 70the Q(VeH)		0.1	U			U			U			

Intersection												
Int Delay, s/veh	4.7											
		EDT	EDD	MDI	MOT	WDD	NDI	NDT	NDD	CDI	CDT	CDD
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	4	,	0	4	0	4./	4	10	-	4	-
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 Cton	0	1 Cton	1 Cton	0	1 Cton
Sign Control RT Channelized	Free	Free	Free None	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop None
	-	-		-	-	None	-	-	None	-	-	None
Storage Length	- 4	0	-	-	0	-	-	0	-	-	0	-
Veh in Median Storage Grade, %	2,# -	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
IVIVIII I IOW	1	31	U	7	J4	7	10	14	10	J	31	,
	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	848 826	-	930	829 846	-
Stage 2 Platoon blocked, %	-	-	-	•	-	-	910	020	-	939	040	-
Mov Cap-1 Maneuver	1534	-	-	1560	-	-	774	741	1024	784	742	1000
Mov Cap-1 Maneuver	1334		-	1500	-		774	741	1024	784	742	1000
Stage 1	-	-	-	-	-	-	949	842	-	923	822	-
Stage 2							864	819	-	902	840	
Jiaye Z							004	017		702	040	
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			0.9			9.5			9.9		
HCM LOS							Α			Α		
Minor Lane/Major Mvm	nt N	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		Α	Α	A	-	Α	A	-	Α			
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		4			4			4			4	
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	e,# -	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		I	Major2		N	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		3.518	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							А			А		
Minor Lane/Major Mvm	nt ſ	VBLn1	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		Α	Α	Α	-	Α	Α	-	Α			
HCM 95th %tile Q(veh))	0.1	0	-	-	0	-	-	0			

Intersection						
Int Delay, s/veh	3.3					
		EDD	WDI	WDT	NDI	NDD
	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	₽			4	¥	
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
	ree	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	. 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	0	18	42	3	36
IVIVIIIL I IOW	73	U	10	72	3	30
Major/Minor Ma	jor1	ľ	Major2	1	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	_		3.318
		-				
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	-
J						
A			\A/D		, LD	
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.2		8.7	
HCM LOS					Α	
Minor Lane/Major Mvmt	N	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		Α	-	-	Α	Α
HCM 95th %tile Q(veh)		0.1	-	-	0	-

Existing PM.syn Synchro 10 Report Hexagon 12/18/2018

Intersection Int Delay, Sveh 3.5 SBI S	latan atta												
Movement		2 5											
Lane Configurations	ını Delay, S/Ven	3.5											
Traffic Vol, veh/h	Movement	EBL		EBR	WBL		WBR	NBL		NBR	SBL		SBR
Future Vol, veh/h Conflicting Peds, #/hr Conf	Lane Configurations		4			4			4			4	
Conflicting Peds, #/hr 2	Traffic Vol, veh/h		47	8	5		4	2	4	3	2		
Sign Control Free Free Free Free Free Free Free Free None	·												35
RT Channelized				-			2						
Storage Length		Free	Free		Free	Free		Stop	Stop		Stop	Stop	
Veh in Median Storage, # 0 - - 0 - - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 0 0 0 0 0 0 0 0 0 0 0 10		-	-	None	-	-	None	-	-	None	-	-	None
Grade, % - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - 0 - 0 - 0 0 100 20 2 2 2 2 2 2 2 2 2 2			-	-	-		-	-		-	-		-
Peak Hour Factor 100 20 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 5 6 2 2 2 2 2 3 3 5 6 1 2 2 1 2 4 2 2 1 2 2 1 2 2 2 2 1 2 2 <td></td> <td>e,# -</td> <td></td> <td>-</td> <td>-</td> <td></td> <td>-</td> <td>-</td> <td></td> <td>-</td> <td>-</td> <td></td> <td>-</td>		e,# -		-	-		-	-		-	-		-
Heavy Vehicles, % 2 2 2 2 2 2 2 2 2													
Mynt Flow 35 47 8 5 62 4 2 4 3 2 3 35 Major/Minor Major1 Major2 Minor1 Minor2 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 Stg 1 - - - - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 <													
Majort/Minor Major1													
Conflicting Flow All 68 0 0 56 0 0 216 200 52 201 202 67 Stage 1 122 122 - 76 76 - Stage 2 122 122 - 76 76 - Stage 2 122 122 - 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 - 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 Critical Hdwy Stg 2	Mvmt Flow	35	47	8	5	62	4	2	4	3	2	3	35
Conflicting Flow All 68 0 0 56 0 0 216 200 52 201 202 67 Stage 1 122 122 - 76 76 - Stage 2 122 122 - 76 76 - Stage 2 122 122 - 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 - 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 Critical Hdwy Stg 2													
Conflicting Flow All 68 0 0 56 0 0 216 200 52 201 202 67 Stage 1 122 122 - 76 76 - Stage 2 122 122 - 76 76 - Stage 2 122 122 - 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 - 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - 6.10 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 Critical Hdwy Stg 2	Maior/Minor	Maior1		ı	Maior2		I	Minor1			Minor2		
Stage 1			0			0			200			202	67
Stage 2				-									
Critical Hdwy 4.12 - 4.12 - 4.12 - 7.12 6.52 6.22 7.12 6.52 6.52 6.52 6.52 6.52 6.52 6.52 6.52 5.52 - 6.18 3.318 3.318 3.318 3.318 3.318 3.318 3.318 3.318 3.318 3.318 3.318 3.318 3.318 3.318 3.318 3.318 <td></td> <td>_</td> <td></td> <td>_</td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		_		_	_								
Critical Hdwy Stg 1 - - - - 6.12 5.52 - 6.18 3.318 3.318 3.318 3.318 3.318 3.318 3.318 4.018 3.318 3.318 3.318 3.21 4.018 3.21 4.018 4.018 4.018 4.018 4.018 4.01		4.12	-	-	4.12		-			6.22			6.22
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 - - - - - 913 830 - 879 792 - Platoon blocked, % - - - - - 913 830 - 879 792 - Platoon blocked, % - - - - - 696 675 1015 735 673 995 Mov Cap-1 Maneuver 1530 - - 1548 - - 696 675 1015 735 673 - Stage 1 - <t< td=""><td></td><td></td><td>_</td><td>_</td><td>-</td><td>_</td><td>_</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>			_	_	-	_	_						
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 2 882 795 - 933 832 - Platoon blocked, % Mov Cap-1 Maneuver 1530 - 1548 - 913 830 - 879 792 - Platoon blocked, % Mov Cap-2 Maneuver 1530 - 1548 - 696 675 1015 735 673 995 Mov Cap-2 Maneuver 696 675 1015 735 673 995 Mov Cap-2 Maneuver 860 775 - 909 828 - 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 98 9 HCM LOS A BEN 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 A A A A A A A A A A A A A		-	-	-	-	_	_			-			_
Pot Cap-1 Maneuver 1533		2.218	_	_	2.218	-	-			3.318			3.318
Stage 1 - - - - 882 795 - 933 832 - Platoon blocked, % - - - - - 913 830 - 879 792 - Mov Cap-1 Maneuver 1530 - - 1548 - - 696 675 1015 735 673 995 Mov Cap-2 Maneuver - - - - - - 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 - A HCM Los - - - - - - - - -			-	-		-	-						
Stage 2 - - - - 913 830 - 879 792 - Platoon blocked, % - <	•	-	-	_	-	-	-						
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 WB NB SB HCM Control Delay, s 2.9 0.5 9.8 9 HCM 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 </td <td></td> <td></td> <td>-</td> <td>-</td> <td></td> <td>-</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			-	-		-	-						
Mov Cap-2 Maneuver - - - - 696 675 - 735 673 - Stage 1 - - - - - 860 775 - 909 828 - Stage 2 - - - - 874 826 - 851 772 - Approach EB WB NB NB SB HCM Control Delay, s 2.9 0.5 9.8 9 HCM 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		1530	-	-	1548	-	-	696	675	1015	735	673	995
Stage 1 - - - - 860 775 - 909 828 - Stage 2 - - - - 874 826 - 851 772 - Approach EB WB NB NB SB HCM Control Delay, s 2.9 0.5 9.8 9 HCM LOS A A 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 A	•		-	-	-	-	-						
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 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 A	· · · · · · · · · · · · · · · · · · ·	-	-	-	-	-	-	860		-			-
Approach EB WB NB SB HCM Control Delay, s 2.9 0.5 9.8 9 HCM LOS A 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 - A		-	-	-	-	-	-	874	826	-	851	772	-
HCM Control Delay, s 2.9 0.5 9.8 9 HCM LOS A 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 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	Annroach	ΕD			\//D			NID			CD		
Minor Lane/Major Mvmt NBLn1 EBL 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 A A													
Minor Lane/Major Mvmt NBLn1 EBL 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 A A		2.9			0.5						,		
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 A A	HCINI FO2							А			А		
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 A A													
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 A - A	Minor Lane/Major Mvm	nt l	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
HCM Control Delay (s) 9.8 7.4 0 - 7.3 0 - 9 HCM Lane LOS A A A - A A - A	Capacity (veh/h)		766	1530	-	-	1548	-	-	944			
HCM Lane LOS A A A - A	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 95th %tile Q(veh) 0 0.1 0 0.1			Α		Α	-	Α	Α	-				
	HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.1			

Intersection												
Intersection Delay, s/veh	9.2											
Intersection LOS	Α											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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		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	А	А	А	Α

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	А	Α	Α	Α	
HCM 95th-tile Q	0.6	0.2	0.5	1.6	

Existing+P AM.syn Synchro 10 Report 01/28/2019 Hexagon

Through Vol

Lane Flow Rate

Geometry Grp
Degree of Util (X)

Service Time

Convergence, Y/N

HCM Lane V/C Ratio

HCM Control Delay

HCM Lane LOS

HCM 95th-tile Q

Departure Headway (Hd)

RT Vol

Cap

207

49

269

0.44

5.885

Yes

616

0.437

13.4

В

2.2

48

32

169

6.597

Yes

546

12.6

В

1.3

3.885 4.622 4.342 3.477

0.31 0.278

32

98

159

0.31 0.279 0.816

Yes

571

11.8

В

1.1

6.315 5.477

363

92

547

Yes

667

0.82

28.1

D

8.5

Intersection													
Intersection Delay, s/v	eh20.1												
Intersection LOS	С												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 L	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach F	RighNB			SB			WB			EB			
Conflicting Lanes Righ	nt 1			1			1			1			
HCM Control Delay	12.6			11.8			13.4			28.1			
HCM LOS	В			В			В			D			
Lane	<u> </u>	NBLn1 E	EBLn1V	VBLn1	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								
TI 1 1 1 1		007	40	00	0/0								

Existing+P AM.syn Synchro 10 Report Hexagon 01/28/2019

Intersection												
Int Delay, s/veh	5.4											
		EDT	EDD	MDI	MOT	WDD	NDI	NDT	NDD	CDI	CDT	CDD
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	2	4	0/	1	4	0	100	4		0	4	0
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 Sign Control	0	0 Froo		Free	0 Froo	0	0 Stop			0 Ctop	O Ctop	
RT Channelized	Free	Free	Free None	riee -	Free	Free None	Stop -	Stop	Stop None	Stop	Stop	Stop None
Storage Length	-	-	None -	-	-	None	-	-	None -	-	-	None
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
WWW. Tiow	_		00	•	•		100		•	U	· ·	
Major/Minor	Major1			Majora			Minor1			Minor2		
	<u>Major1</u> 11	0	0	Major2 98	0	0	72	72	55	75	115	11
Conflicting Flow All Stage 1	- 11	U	U	98	-	U	59	59	55	13	13	- 11
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	4.12	_		4.12	-		6.12	5.52	0.22	6.12	5.52	0.22
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	-	_	_	, 0	-	-	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 Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SRI n1			
Capacity (veh/h)	n I	917	1608	LDT		1494	VVDI	WDR.	SDLIII			
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		9.0 A	7.2 A	A	-	7.4 A	A	-	A			
HCM 95th %tile Q(veh)	0.5	0	- -	_	0	- A	_	- A			
110W 75W 76W Q(VCI)	1	0.0	0			U						

Intersection						
Int Delay, s/veh	0.8					
		EDE	ND	NET	CDT	CDD
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥	00	10	4	†	7
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		-	-	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	, A	/lajor2	
						0
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		3.318	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	
			0.1			
HCM Control Delay, s	17.3		U. I		0	
HCM LOS	С					
Minor Lane/Major Mvn	nt	NBL	NBT I	EBLn1	SBT	SBR
Capacity (veh/h)		850	-	010	_	-
HCM Lane V/C Ratio		0.014		0.193	-	-
HCM Control Delay (s)		9.3	0	17.3	_	-
HCM Lane LOS		Α	A	С	-	-
HCM 95th %tile Q(veh)	0	-	0.7	-	-

	•	•	<u>†</u>	<u> </u>	<u> </u>	Ţ
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	WDL	VUIN	↑ ↑	NUN	JDL	<u> </u>
Traffic Volume (veh/h)	444	12	350	425	0	866
Future Volume (veh/h)	444	12	350	425	0	866
Number	7	14	330	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
. ,			U			U
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	
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	1.7	0.00	0.00	5.2
Lane Grp Cap(c), veh/h	544	0.03	1478	0.00	0.00	1478
V/C Ratio(X)	0.84	0.00	0.24	0.00	0.00	0.59
Avail Cap(c_a), veh/h	972	0.00	2269	0.00	0.00	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	В		Α			Α
Approach Vol, veh/h	457		350			866
Approach Delay, s/veh	10.2		5.2			6.6
Approach LOS	В		Α			А
	1	2	2	4	_	,
Timer	I	2	3	4	5	6
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+l1), 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			Α.			
TION ZUTU LOG						

	۶	→	•	•	←	•	•	†	~	/	↓	✓	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		414	7		414			4	7		4	7	
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	U	0.96	1.00	0	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	1700	245	69	122	215	17	65	350	16	
Adj No. of Lanes	0	2	1	0	2	0	0	1	17	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			0.27		0.27	
	242	3038						0.23	0.23 1527	289	0.27	1532	
Sat Flow, veh/h			1439	85	2454	665	662	1167			1559		
Grp Volume(v), veh/h	200	190	490	175	0	156	337	0	17	415	0	16	
Grp Sat Flow(s), veh/h/l		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	8.0	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		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/ve	h 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/vel		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%),ve	h/ln3.9	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	С	С	В	С		С	D		С	D		С	
Approach Vol, veh/h		880			331			354			431		
Approach Delay, s/veh		17.4			21.6			37.0			35.9		
Approach LOS		В			С			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),		4.0		4.0		4.0		4.0					
Max Green Setting (Gm		35.0		38.0		35.0		45.0					
Max Q Clear Time (g_c		21.2		18.3		8.8		21.9					
Green Ext Time (p_c),		3.9		2.1		2.2		2.8					
Intersection Summary													
HCM 2010 Ctrl Delay			25.5										
HCM 2010 LOS			C C										
HOW ZUTU LUS			C										

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	*	†	†	7		7	
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/li		1863	1863	1535	1774	1583	
Q Serve(q_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	11.0	7.0	1.00	1.00	1.00	
Lane Grp Cap(c), veh/h		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/vel		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	
%ile BackOfQ(50%),vel		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	В	С	В	D	В	
Approach Vol, veh/h		711	729		699	_	
Approach Delay, s/veh		33.2	14.9		40.9		
Approach LOS		C	В		D		
Timer	1	2	3	4	5	6	
Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc)		86.0		39.6	30.3	55.7	
Change Period (Y+Rc),		* 4.2		* 4.2	4.0	* 4.2	
Max Green Setting (Gm		* 82		* 60	45.0	* 33	
Max Q Clear Time (g_c		13.0		33.7	25.3	21.6	
Green Ext Time (p_c), s	6	1.6		1.7	1.0	1.6	
Intersection Summary							
HCM 2010 Ctrl Delay			29.5				
HCM 2010 LOS			С				
Notes							
	nal en	gine red	quires e	equal cle	earance	times f	for the phases crossing the barrier.

Existing+P AM.syn Hexagon

Movement		•	-	•	•	←	•	•	1	~	\	↓	4	
Lane Configurations	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Flatfix Volume (veh/h) 153 60 0 54 14 195 0 763 62 232 761 96			4			र्स	7		414			ħβ		
Number 7		153	60	0	54	14	195	0	763	62	232		96	
Number 7		153	60	0	54	14	195	0		62			96	
Pest Bike Adji(A_pbT)		7	4	14	3	8	18	1	6	16	5	2	12	
Parking Bus, Adj	Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Adj Sal Flow, veh/hr/n 1900 1863 1900 1900 1863 1863 1900 1863 1900 1863 1900 1863 1900 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 1 0 2 0 1 2 0 0 Pack Hour Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98	1.00		1.00	
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 0 10 10	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 No. of Lanes 0 1 0 0 1 1 0 0 0 1 1 1 0 0 2 2 0 1.00 1.0	Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1863	1900	1863	1900	1863	1863	1900	
Peak Hour Factor 1.00 1.	Adj Flow Rate, veh/h	153	60	0	54	14	195	0	763	62	232	761	96	
Percent Heavy Veh, % 2 2 2 2 2 2 2 2 2	Adj No. of Lanes	0	1	0	0	1	1	0	2	0	1	2	0	
Cap, veh/h	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	
Arrive On Green 0.22 0.22 0.00 0.22 0.22 0.20 0.02 0.27 0.27				2				2						
Sal 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 Sal Flow(s), veh/h/In1165 0 0 1439 0 1555 0 1770 1807 1774 1770 1792 O Serve(g. s), s 11.5 0.0 0.0 0.0 0.0 0.0 17.5 17.5 7.9 8.5 8.5 Cycle O Clear(g. c), s 14.4 0.0 0.0 3.0 0.0 0.0 17.5 17.5 7.9 8.5 8.5 Prop In Lane 1.0 0.0 0.38 0 86 0 478 488 608 1176 1190 V/C Ratio(X) 0.44 0.0 0.0 0.1 0.0 0.0 0.0 0.1 0.0 0.0 17.5 1														
Grp Volume(v), veh/h 213 0 0 68 0 195 0 408 417 232 426 431 Grp Sat Flow(s), veh/h/hn1165 0 0 1439 0 1555 0 1770 1807 1774 1770 1792 0 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 O 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 Cycle O 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 0.1 15. 1.00 0.22 Lane Grp Cap(c), veh/h 334 0 0.398 0 886 0 478 488 608 1176 1190 W/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 1.0				0.00				0.00						
Grp Sat Flow(s), veh/h/ln1165	Sat Flow, veh/h	780	386	0	1099	340	1555	0	3401	269	1774	3163	399	
OServe(g_s), s 11.5 0.0 0.0 0.0 0.0 0.0 17.5 17.5 7.9 8.5 8.5 Cycle O Clear(g_c), s 14.4 0.0 0.0 0.0 0.0 0.15 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 0.02 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 HCM Platon 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 1.00 1.00 0.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Grp Volume(v), veh/h	213	0	0	68	0	195	0	408	417	232	426	431	
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 1.0		า1165			1439	0	1555							
Prop In Lane	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	
Lane Grp Cap(c), veh/h 334	Cycle Q Clear(g_c), s		0.0	0.0		0.0	0.0	0.0	17.5			8.5		
V/C Ratio(X) 0.64 0.00 0.00 0.17 0.00 0.22 0.00 0.85 0.85 0.36 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 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0				0.00				0.00						
Avail Cap(c_a), veh/h 488 0 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 1.0														
HCM Platoon Ratio	, ,			0.00		0.00		0.00						
Upstream Filter(I) 1.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 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 O Delay(d3), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.														
Uniform Delay (d), s/veh 30.6														
Incr Delay (d2), s/veh														
Initial O Delay(d3),s/veh 0.0 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>														
%ile BackOfQ(50%),veh/lr4.6 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 8 8 Phs Duration (G+Y+Rc), s 57.7 22.3 32.0 25.7 22.3 22.3 Change Period (Y+Rc), s 4.6 4.6 4.6 4.6 4.6 4.6 4.6 Max Green Setting (Gmax), s 43.7 27.1 15.9 *24 27.1 22.3														
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 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 4.6 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+I), s 10.5 16.4 9.9 19.5 5.0 Green Ext Time (g_c+I), 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														
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 8 8 Phs Duration (G+Y+Rc), s 57.7 22.3 32.0 25.7 22.3 22.3 Change Period (Y+Rc), s 4.6 4.6 4.6 *4.1 4.6 4.6 Max Green Setting (Gmax), s 43.7 27.1 15.9 *24 27.1 27.1 Max Q Clear Time (g_c+I1), s 10.5 16.4 9.9 19.5 5.0 5.0 Green Ext Time (p_c), s 6.4 0.8 0.2 2.1 0.8 0.8 0.2 2.1 0.8 0.8 0.2 2.1 0.8 0.8 0.2														
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			0.0	0.0		0.0		0.0						
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		C			C		A			D	В		A	
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														
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 4.6 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														
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	Approach LOS		C			В			D			А		
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 * 4.1 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	Timer	1	2	3	4	5	6	7	8					
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+l1), 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			2		4	5	6		8					
Max Green Setting (Gmax), s 43.7 27.1 15.9 * 24 27.1 Max Q Clear Time (g_c+l1), 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			57.7		22.3	32.0	25.7		22.3					
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					4.6	4.6			4.6					
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			43.7		27.1	15.9	* 24		27.1					
Intersection Summary HCM 2010 Ctrl Delay 24.2 HCM 2010 LOS C	\0 _	, .												
HCM 2010 Ctrl Delay 24.2 HCM 2010 LOS C	Green Ext Time (p_c), s	;	6.4		8.0	0.2	2.1		8.0					
HCM 2010 LOS C Notes	Intersection Summary													
Notes			-		-			-				-		
	HCM 2010 LOS			С										
	Notes													
		nal en	gine red	quires e	qual cle	earance	times f	or the p	hases	crossin	g the ba	arrier.		

Existing+P AM.syn Hexagon

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Movement	EBL	EBT	WBT	WBR	SBL	SBR			Į
Lane Configurations	ሻሻ	†	11	אטוע	JDL ħ	77			
Traffic Volume (veh/h)	566	1670	595	176	524	778			
Future Volume (veh/h)		1670	595	176	524	778			
Number	1	6	2	170	3	18			
Initial Q (Qb), veh	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00	0	J	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			
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/		1670	1695	1608	1774	1393			
Q Serve(q_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	10.7	7.0	0.69	1.00	1.00			
Lane Grp Cap(c), veh/h		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			
	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)		11.7	22.1	22.3	22.1	10.4			
Uniform Delay (d), s/veh									
Incr Delay (d2), s/veh	6.0	1.0	2.0	4.6	6.9	0.3			
Initial Q Delay(d3),s/ve		0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),ve		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	С	В	<u>C</u>	С	C 1202	В			
Approach Vol, veh/h		2236	771		1302				
Approach Delay, s/veh		18.2	25.0		18.1				
Approach LOS		В	С		В				
Timer	1	2	3	4	5	6	7	8	
Assigned Phs	1	2				6		8	
Phs Duration (G+Y+Ro	2), 1\$8.6	25.4				44.0		30.1	
Change Period (Y+Rc)		4.0				4.0		4.0	
Max Green Setting (Gr		18.0				40.0		32.0	
Max Q Clear Time (g_c		11.9				18.7		22.1	
Green Ext Time (p_c),		2.5				12.7		4.0	
Intersection Summary									
			10.4						
HCM 2010 Ctrl Delay			19.4						
HCM 2010 LOS			В						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4	7	*	1→		ሻ	^	7	*	^	7	
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/li		0	1572	1774	0	1676	1774	1770	1545	1774	1770	1539	
Q Serve(q_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	0.0	1.00	1.00	0.0	0.55	1.00	0.0	1.00	1.00	00.0	1.00	
Lane Grp Cap(c), veh/h		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	0.00	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/vel		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	
%ile BackOfQ(50%),vel		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	Е		Ε	E		Ε	В	Α	Α	F	D	С	
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	<u> </u>	4	<u> </u>	6	1	8					
Phs Duration (G+Y+Rc)		110.5		13.5	57.8	58.9		29.7					
Change Period (Y+Rc),		4.6		* 4.2	4.6	* 4.6		4.0					
Max Green Setting (Gm		71.4		* 28	17.0	* 60		38.0					
Max Q Clear Time (q_c		2.0		5.5	5.9	40.5		23.9					
Green Ext Time (p_c), s		16.5		0.2	0.1	13.8		1.6					
Intersection Summary	. 0.0	. 0.0		J.2	J. 1								
HCM 2010 Ctrl Delay			37.8										
HCM 2010 Clir Delay			37.8 D										
			U										
Notes User approved pedestri	an into	nyal to l	no loce	than nh	250 mg	v groot	,						
User approved pedestri	an me	ivai lu l	Je 1622	uiaii ph	ase IIIè	ix greet	I.						

Existing+P AM.syn Hexagon

HCM Lane LOS

HCM 95th-tile Q

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Intersection												
Intersection Delay, s/ve	h30.9											
Intersection LOS	D											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR		SBL	SBL SBT
Lane Configurations	ሻ	<u> </u>	7	ሻ	1	WDI	NDL	4	TVDIC		JDL	<u>30L 301</u>
Traffic Vol, veh/h	34	267	68	205	305	33	73	118	214		37	
Future Vol, veh/h	34	267	68	205	305	33	73	118	214		37	
Peak Hour Factor	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	
Mvmt Flow	34	267	68	205	305	33	73	118	214		37	
Number of Lanes	1	1	1	1	1	0	0	1	1		0	
	ΓD			WD			ND					
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	2			3			1			2		
Conflicting Approach Le				NB			EB			WB		
Conflicting Lanes Left	1			2			3			2		
Conflicting Approach R	0			SB			WB			EB		
Conflicting Lanes Right				1			2			3		
HCM Control Delay	28.1			38.9			22.1			32		
HCM LOS	D			Ε			С			D		
Lane	<u> </u>	IBL _{n1} I	NBLn2 I	EBLn1	EBLn2	EBLn3\	VBLn1\	VBLn2	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 (H	d)	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			0.714	0.17	0.553		0.686			
HCM Control Delay		22.9	21.3	14	33.6	13.5	24.1	47.9	32			

Existing+P AM.syn
Hexagon
Synchro 10 Report
01/28/2019

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		414			413		*	ተተጉ		ሻ	^	7	
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	, i	1.00	1.00		0.98	1.00	100	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	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	
	34	3284		950	791	925	1774	4853	336	1774	3539	1583	
Sat Flow, veh/h			0										
Grp Volume(v), veh/h	74	69	0	279	0	292	57	1030	546	172	1298	0	
Grp Sat Flow(s), veh/h/l		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		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/ve	h 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/vel	h 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%),ve	h/ln2.8	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		Е		Ε	F	F	F	Е	С		
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			С		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2		4	5	6		8					
Phs Duration (G+Y+Rc) % () 3	96.0		52.3	11.3	115.0		52.3					
Change Period (Y+Rc),		4.0		4.0	4.0	4.0		4.0					
Max Green Setting (Gm		92.0		67.0		111.0		67.0					
Max Q Clear Time (g_c		39.8		33.5	7.7	41.1		44.4					
Green Ext Time (p_c),	•	17.3		0.8	0.0	14.8		3.9					
, , , , , , , , , , , , , , , , , , ,	S U.4	17.3		υ.δ	0.0	14.0		3.9					
Intersection Summary			04 =										
HCM 2010 Ctrl Delay			81.7										
HCM 2010 LOS			F										

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	ሻ	ħβ		ሻሻ	†	7	*	† †	7	ሻሻ	^	7	
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/lr		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		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		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	
%ile BackOfQ(50%),veh		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	<u>E</u>	E	D	<u> </u>	C	В	F	C	A	
Approach Vol, veh/h		489			843			2041			1592		
Approach Delay, s/veh		88.2 F			72.1			27.6			30.9 C		
Approach LOS		F			Е			С			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)		93.0	25.9	23.1	11.6	98.7	18.0	31.0					
Change Period (Y+Rc),		4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Max Green Setting (Gm		89.0	29.0	24.0	13.0	93.0	20.0	33.0					
Max Q Clear Time (g_c-		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 righ	nt turn ty	ype.										

Existing+P AM.syn Hexagon

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Movement WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations 11	77	^			^			
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	0.00	0.00	3725			
Grp Volume(v), veh/h 745	586	1728	0	0	971			
Grp Sat Flow(s), veh/h/ln1721	1393	1720	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	20.4	0.00	0.00	11.2			
•	746	2224	0.00	0.00	2224			
Lane Grp Cap(c), veh/h 921								
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	1.00	1.00	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/lr8.2	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	С	В			A			
Approach Vol, veh/h 1331		1728			971			
Approach Delay, s/veh 31.4		12.4			8.2			
Approach LOS C		В			Α			
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+l1), 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		В						

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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	ሻሻ	7		^	† †	0311
Traffic Volume (veh/h)	1249	450	0	966	1513	0
, ,	1249	450	0	966	1513	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
	1.00	1.00	1.00	U	U	1.00
Ped-Bike Adj(A_pbT)				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/li		1583	0	1770	1770	0
Q Serve(q_s), s	27.7	19.3	0.0	14.8	0.0	0.0
Cycle Q Clear(q_c), s	27.7	19.3	0.0	14.8	0.0	0.0
Prop In Lane	1.00	1.00	0.00	1 1.0	0.0	0.00
Lane Grp Cap(c), veh/h		619	0.00	1792	1792	0.00
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/vel		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	n 0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),vel		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	С	С	0.0	В	A	0.0
Approach Vol, veh/h	1699			966	1513	
• •					4.0	
Approach Delay, s/veh				14.6		
Approach LOS	С			В	Α	
Timer	1	2	3	4	5	6
Assigned Phs		2		4		6
Phs Duration (G+Y+Rc)). S	44.6		35.4		44.6
Change Period (Y+Rc),		4.1		4.1		4.1
Max Green Setting (Gm		38.9		32.9		38.9
Max Q Clear Time (g_c		16.8		29.7		2.0
		4.9				10.5
Green Ext Time (p_c), s)	4.9		1.6		10.5
Intersection Summary						
HCM 2010 Ctrl Delay			17.4			
HCM 2010 LOS			В			

HCM Lane V/C Ratio

HCM Control Delay

HCM Lane LOS

HCM 95th-tile Q

Intersection												
Intersection Delay, s/vel	h12.8											
Intersection LOS	В											
mioroccion 200												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	LDL	413	LDI	WDL	₩ 41}	WDI	NDL	4	NDIX	JDL	3D1 ↔	JUIN
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 Le	ft SB			NB			EB			WB		
Conflicting Lanes Left	1			1			2			2		
Conflicting Approach Rig	ghtNB			SB			WB			EB		
Conflicting Lanes Right	1			1			2			2		
HCM Control Delay	12.2			13.5			12.8			12.3		
HCM LOS	В			В			В			В		
Lane	N	NBLn1 I	EBLn1	EBLn2V	WBLn1\	VBLn2	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 (Ho	d)	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			4.334	4.098	4.259	4.004	4.394					
110111 110 5 11		0.050	0.044	0.007	0 440	0.054	0.040					

Existing+P AM.syn
Hexagon
Synchro 10 Report
01/28/2019

12.3

В

1.3

0.359 0.311 0.326 0.449 0.351 0.319

В

1.4

12.1 14.4 12.4

В

2.3

В

1.6

12.8

В

1.6

12.3

В

1.3

Intersection												
Int Delay, s/veh	6.6											
		CDT	רחח	WDI	WDT	WDD	NDI	NDT	NDD	CDI	CDT	CDD
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	F.0	4Th	-	•	€ 1₽	00	•	4	0.5	0.0	4	0.4
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 N	1ajor1			Major2			/linor1		Λ	/linor2		
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	_
g = -												
Annroach	ED			WD			ND			CD		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			0.3			20.6			43.2		
HCM LOS							С			Е		
Minor Lane/Major Mvmt	<u> </u>	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	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	-				
HCM Lane LOS		С	Α	Α	-	Α	Α	-	Е			
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		4			4			4			4	
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	e,# -	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		1	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							Α.			В		
							, ,					
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1			
Capacity (veh/h)		860	1435	-		1473	-	-				
HCM Lane V/C Ratio		0.094	-	_		0.043	_		0.018			
HCM Control Delay (s)		9.6	0	_	_	7.6	0	_				
HCM Lane LOS		Α.	A	_	-	Α.	A	_	В			
HCM 95th %tile Q(veh))	0.3	0	_	_	0.1	-	_	0.1			
7001 70010 2(1011)		0.0				J. 1			3.1			

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	2,# -	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 I	Major1			Major2		ľ	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							В			В		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		689	1484	-	-	1502	-	-	622			
HCM Lane V/C Ratio		0.042		-	_	0.051	-	_	0.124			
HCM Control Delay (s)		10.5	7.4	0	-	7.5	0	-	11.6			
HCM Lane LOS		В	Α	A	-	A	A	-	В			
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		4			4			4			4	
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	e,# -	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 N	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							В			В		
Minor Lane/Major Mvm	nt r	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1			
Capacity (veh/h)		720	1406	-		1509	-	-				
HCM Lane V/C Ratio		0.039		_		0.037	_		0.025			
HCM Control Delay (s)		10.2	7.6	0	_	7.5	0	-				
HCM Lane LOS		В	Α.	A	-	7.5 A	A	_	В			
HCM 95th %tile Q(veh))	0.1	0	-	_	0.1	-	-	0.1			
		3.1				3.1			3.1			

Intersection						
Int Delay, s/veh	3.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1	LUK	WDL	₩D1	NDL W	NOIX
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		
RT Channelized	riee -	None			Stop	Stop None
			-		-	
Storage Length	-	-	-	-	0	-
Veh in Median Storage,		-	-	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 N	1ajor1	N	Major2	1	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	_	_	-7.12	_	5.42	0.22
Critical Hdwy Stg 2	-	_	_	_	5.42	-
Follow-up Hdwy	-	<u>-</u>	2.218	-	3.518	
Pot Cap-1 Maneuver	-	-	1480	-	766	945
	-	-	1400	-	916	940
Stage 1	-	-	-	-		
Stage 2	-	-	-	-	907	-
Platoon blocked, %	-	-	1 17/	-	1	042
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	- 0		2.0		7.3 A	
TIOWI LOO					Α.	
Minor Lane/Major Mvmt	: N	VBLn1	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		Α	-	-	Α	Α
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		4			4			4			4	
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	e,# -	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 I	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		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	3.9			U. I			В			9.8 A		
TIOWI LOG							D			A		
Minor Lane/Major Mvm	nt N	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR S				
Capacity (veh/h)		611	1446	-	-	1516	-	-	832			
HCM Lane V/C Ratio		0.021		-	-	0.001	-	-	0.095			
HCM Control Delay (s)		11	7.6	0	-	7.4	0	-	9.8			
HCM Lane LOS		В	Α	Α	-	Α	Α	-	Α			
HCM 95th %tile Q(veh))	0.1	0.2	-	-	0	-	-	0.3			

Intersection		
Intersection Delay, s/veh	8.5	
Intersection LOS	Α	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		₩			4			₩			4	
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	Α			Α			Α			Α		

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	А	Α	Α	А	
HCM 95th-tile Q	0.6	0.3	0.4	1	

Intersection Delay, s/veh19.3 Intersection LOS C	tion		
Intersection LOS	tion Delay, s/veh19.3		
initia section 200	tion LOS C		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach R	ightNB			SB			WB			EB			
Conflicting Lanes Right	1			1			1			1			
HCM Control Delay	13			15.5			16			25.8			
HCM LOS	В			С			С			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	С	В	С	D
HCM 95th-tile Q	3	1.2	2.7	7

Intersection												
Int Delay, s/veh	4.5											
		EDT	EDD	MDI	MOT	W/DD	NDI	NDT	NDD	001	ODT	000
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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 N	Major1			Major2			Vinor1			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	_
g · -											,	
Annroach	ED			WD			ND			CD		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			1.3			9.4			9.3		
HCM LOS							А			Α		
Minor Lane/Major Mvm	nt l	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		Α	A	A	-	A	A	-	Α			
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	LDL W	LDK	NDL	ND1 €	<u>301</u>	JDK ř
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	e, # 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
N / a i a w / N / i w a w	N /!: = 2		\		1-10	
	Minor2		Major1		/lajor2	
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, %	017			_	_	_
Mov Cap-1 Maneuver	96	451	871	_	_	_
Mov Cap-1 Maneuver	280	431	0/1	-		
		-				
Stage 1	475	-	-	-	-	-
Stage 2	348	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	18.9		0.2		0	
HCM LOS	C		0.2		U	
HOW EOS	J					
Minor Lane/Major Mvn	nt	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		Α	A	С	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-
	,	0.1		3.7		

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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	WDL W	אטוע	† ₽	אטונ	JUL	<u> </u>
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
` ,	1.00	1.00	U	1.00	1.00	U
Ped-Bike Adj(A_pbT)			1.00			1.00
Parking Bus, Adj	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(q_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	0.07	1412	0.00	0.00	1412
V/C Ratio(X)	0.80	0.00	0.27	0.00	0.00	0.42
Avail Cap(c_a), veh/h	1162	0.00	3507	0.00	0.00	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	Α		Α			Α
Approach Vol, veh/h	308		375			597
Approach Delay, s/veh	8.7		4.1			4.5
Approach LOS	Α		Α			A
•						
Timer	1	2	3	4	5	6
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+l1), s		3.4		5.3		4.4
Green Ext Time (p_c), s		2.5		0.1		3.5
Intersection Summary						
			5.4			
HCM 2010 Ctrl Delay			ე.4			
HCM 2010 LOS			А			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		41₽	7		414			4	7		4	7
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	С	С	Α	С		С	D		С	D		С
Approach Vol, veh/h		639			508			358			464	
Approach Delay, s/veh		16.6			23.1			37.3			35.2	
Approach LOS		В			С			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			С									

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	ሻ	†	†	7	*	7	
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	
nitial 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	
2 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	7.0	17.0	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	
Jpstream 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	
nitial 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	
_nGrp Delay(d),s/veh	63.4	7.6	28.2	13.7	61.0	22.3	
LnGrp LOS	03.4 E	7.0 A	20.2 C	13.7 B	61.0 E	22.3 C	
Approach Vol, veh/h		685	993	D	689	<u> </u>	
Approach Vol, ven/n Approach Delay, s/veh		38.8	19.3		44.2		
Approach LOS		30.0 D	19.3 B		44.2 D		
· ·							
<u>Fimer</u>	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+l1), 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			С				
Notes							
* HCM 2010 computational en	aine reau	uires equa	al clearan	ice times f	or the ph	ases cros	ssing the barrier

Existing+P PM.syn Hexagon

	•	→	•	•	←	•	•	†	~	>	↓	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4	7		4P		ň	↑ ↑	
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	C
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	C
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	Е			Е		В	Е		Е	С	Α	А
Approach Vol, veh/h		74			260			970			863	
Approach Delay, s/veh		64.4			24.5			57.6			5.8	
Approach LOS		E			С			E			А	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	<u> </u>	4	5	6	1	8				
		120.1		19.9	70.7	49.4		19.9				
Phs Duration (G+Y+Rc), s						* 4.1		4.6				
Change Period (Y+Rc), s		4.6 100.4		4.6	4.6	* 73		30.4				
Max Green Setting (Gmax), s				30.4	23.9							
Max Q Clear Time (g_c+I1), s Green Ext Time (p_c), s		8.3 5.4		14.1	7.9 0.1	38.1 7.2		6.9 0.8				
Intersection Summary		0.1		3.0	J. 1	,		3.0				
HCM 2010 Ctrl Delay			33.2									
HCM 2010 CIT Delay			33.2 C									
HOW ZUTU LUS			C									
Notes												
* HCM 2010 computational en	gine req	uires equa	al clearan	ce times	for the ph	ases cros	ssing the	barrier.				

Existing+P PM.syn Hexagon

	•	→	-	•	<u> </u>	4		
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	ሻሻ	↑ ↑↑	11	WER	ሻ	77		
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(q_c), s	10.6	3.9	19.4	19.4	9.3	10.2		
Prop In Lane	1.00	3.9	19.4	0.58	1.00	1.00		
	682	3466	1438	701	355	1109		
Lane Grp Cap(c), veh/h V/C Ratio(X)	0.83	0.22	0.78	0.79	0.73	0.50		
		3466		701	421	1213		
Avail Cap(c_a), veh/h	816		1438		1.00	1.00		
HCM Platoon Ratio	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	С	A	CC	С	C	В		
Approach Vol, veh/h		1338	1679		819			
Approach Delay, s/veh		15.9	22.5		20.4			
Approach LOS		В	С		С			
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			В					
110111 2010 200			D					

Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h	471 471 3 0 1.00 1.00 1863 487 2 1.00	EBT 23 23 8 0 1.00 1863	99 99 18 0	WBL 66 66 7	WBT 29 29	WBR 48	NBL 185	NBT ↑↑ 925	NBR * 67	SBL 1	SBT	SBR
Traffic Volume (veh/h) Future Volume (veh/h) Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	471 471 3 0 1.00 1.00 1863 487 2	23 23 8 0	99 99 18 0	66 66 7	29 29							7
Future Volume (veh/h) Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	471 3 0 1.00 1.00 1863 487 2	23 8 0	99 18 0	66 7	29		185	925	67	21	112	
Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	3 0 1.00 1.00 1863 487 2	1.00	18 0	7		40			01	۷١	662	335
Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	0 1.00 1.00 1863 487 2	1.00	0		4	48	185	925	67	21	662	335
Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	1.00 1.00 1863 487 2	1.00		Λ	4	14	5	2	12	1	6	16
Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	1.00 1863 487 2		0.99	U	0	0	0	0	0	0	0	C
Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	1863 487 2			1.00		0.99	1.00		0.97	1.00		0.97
Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	487 2	1863	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	2	1000	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane		0	99	66	29	48	185	925	67	21	662	335
Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	1 00	0	1	1	1	0	1	2	1	1	2	1
Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	2	2	2	2	2	2	2	2	2	2	2	2
Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	608	0	270	158	56	92	124	1960	996	31	1775	1045
Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	0.17	0.00	0.17	0.09	0.09	0.09	0.07	0.55	0.55	0.02	0.50	0.50
Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	3548	0	1572	1774	626	1037	1774	3539	1544	1774	3539	1543
Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	487	0	99	66	0	77	185	925	67	21	662	335
Cycle Q Clear(g_c), s Prop In Lane	1774	0	1572	1774	0	1663	1774	1770	1544	1774	1770	1543
Prop In Lane	13.2	0.0	5.6	3.5	0.0	4.4	7.0	15.8	1.6	1.2	11.5	9.1
	13.2	0.0	5.6	3.5	0.0	4.4	7.0	15.8	1.6	1.2	11.5	9.1
Lane Grn Can(c) veh/h	1.00		1.00	1.00		0.62	1.00		1.00	1.00		1.00
Land Cip Cap(o), voiiin	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	В	Α	E	В	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			Е			В	
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+l1), 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												
Notes			D									
User approved pedestrian interv			D									

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Intersection												
Intersection Delay, s/veh	129.2											
Intersection LOS	D											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<u> </u>	T T	ሻ	7	WDIN	NDL	4	T T	JDL	4	JUIN
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
Mymt Flow	45	346	87	182	239	21	88	147	220	39	123	28
Number of Lanes	1	1	1	102	237	0	00	147	1	0	123	0
	•	'	<u>'</u>		<u>'</u>	0		'	· ·		'	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	2			3			1			2		
Conflicting Approach Lef				NB			EB			WB		
Conflicting Lanes Left	1			2			3			2		
Conflicting Approach Rig				SB			WB			EB		
Conflicting Lanes Right	2			1			2			3		
HCM Control Delay	40			25.8			23.5			23.7		
HCM LOS	Ε			D			С			С		
Lane	N	IBLn11	NBLn2 I	EBLn1	EBLn2	EBLn3\	VBLn1\	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		0.12	0.875	0.202	0.495	0.665	0.53			
Departure Headway (Hd								9.204				
Convergence, Y/N		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Cap		381	422	372	398	427	368	393	357			
Service Time		7.229		7.403					7.84			
HCM Lane V/C Ratio								0.662				
HCM Control Delay		26.4	20.3	13.7	50.1	13.3	21.9	28.6	23.7			
HCM Lane LOS		D	С	В	F	В	С	D	С			
HCM 95th-tile Q		4	2.9	0.4	8.7	0.7	2.6	4.6	3			
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Existing+P PM.syn Synchro 10 Report 12/18/2018 Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4T+			۔}		ሻ	ተተ _ጉ		ħ	† †	7
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(q_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	0.00	0.58	0.0	0.92	1.00	27.0	0.22	1.00	00	1.00
Lane Grp Cap(c), veh/h	186	376	0.00	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	0.0	E	0.0	E	F	E	E	E	В	0.0
Approach Vol, veh/h		155			470		-	1366			1515	
Approach Delay, s/veh		59.6			72.5			63.6			23.3	
Approach LOS		E			, <u>2</u> .6			E			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	<u> </u>	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		40.5				
Max Green Setting (Gmax), s	34.0	101.0		58.0	14.0	121.0		58.0				
Max Q Clear Time (g_c+l1), 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	0.9	16.5		2.9				
ų — 7:	0.4	13.4		U. 7	0.0	10.5		۷.7				
Intersection Summary HCM 2010 Ctrl Delay			47.2									
HCM 2010 LOS			47.2 D									
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	† ‡		ሻሻ	†	7	7	^	7	ሻሻ	† †	7
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(q_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	Ε	Е	Ε	Ε	D	С	Ε	С	Α	Ε	С	В
Approach Vol, veh/h		535			1095			1587			1582	
Approach Delay, s/veh		64.2			46.1			22.7			30.9	
Approach LOS		Е			D			С			С	
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 (q_c+l1), 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 righ	nt turn ty	pe.										
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Existing+P PM.syn Hexagon

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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	ሻሻ	77	† †			^	
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	0.00	0.00	3725	
Grp Volume(v), veh/h	510	245	2042	0	0	766	
1 ' '			1770			1770	
Grp Sat Flow(s), veh/h/ln	1721	1393		0	0		
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	0.404	0.00	0.00	0.404	
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	С	С	В			Α	
Approach Vol, veh/h	755		2042			766	
Approach Delay, s/veh	31.2		10.2			4.9	
Approach LOS	С		В			Α	
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+l1), s		34.6				8.6	13.2
Green Ext Time (p_c), s		10.2				6.3	2.4
ч — 7		10.2				0.5	۷.۹
Intersection Summary			10.5				
HCM 2010 Ctrl Delay			13.5				
HCM 2010 LOS			В				

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Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	ሻሻ	Į,	HUL	† †	<u> </u>	ODIC	
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	0.00	3725	3725	0.00	
	1352	403	0	1015	884	0	
Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln	1721	1583	0	1770	1770	0	
Q Serve(g_s), s	29.4	1583	0.0	1770	2.7	0.0	
			0.0	17.2	2.7	0.0	
Cycle Q Clear(g_c), s Prop In Lane	29.4	15.5		17.2	2.1		
	1.00	1.00	0.00	1/40	1/40	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	С	В		В	A		
Approach Vol, veh/h	1755			1015	884		
Approach Delay, s/veh	25.4			17.7	2.7		
Approach LOS	С			В	Α		
Timer	1	2	3	4	5	6	
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+l1), s		19.2		31.4		4.7	
Green Ext Time (p_c), s		4.2		3.1		4.6	
Intersection Summary		1.4		J. 1		1.0	
			17.0				
HCM 2010 Ctrl Delay			17.8				
HCM 2010 LOS			В				

Intersection					
Intersection Delay, s/\ Intersection LOS	/eh12.6				
Intersection LOS	В				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		414			414			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			2			2			
Conflicting Approach Ri	ghNB			SB			WB			EB			
Conflicting Lanes Right	1			1			2			2			
HCM Control Delay	13.6			11.9			11.8			11.7			
HCM LOS	В			В			В			В			

Lane	NBLn1	EBLn1	EBLn2V	VBLn1V	VBLn2	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	В	В	В	В	В	В	
HCM 95th-tile Q	1.2	2.4	2.2	1.4	1.1	1	

Interception												
Intersection Int Delay, s/veh	3.1											
ini Delay, S/Ven												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		414			€1 }			4			4	
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 M	ajor1			Major2		N	/linor1		Λ	/linor2		
Conflicting Flow All	676	0	0	665	0	0	1157	1534	366	1196	1519	354
Stage 1	-	-	U	000	-	-	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	T. 14	-		7.14	_	-	6.54	5.54	0.74	6.54	5.54	0.74
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	711		_	720	_	_	336	388	-	400	443	- 042
Stage 2	-		_	_	_	_	649	432	_	518	384	-
Platoon blocked, %		_	_		_	_	017	102		010	- 00 f	
Mov Cap-1 Maneuver	887	_	_	908	_	_	113	91	610	112	94	625
Mov Cap-1 Maneuver Mov Cap-2 Maneuver	-		_	700	_	_	113	91	-	112	94	023
Stage 1	_		_	_	_	_	284	328	_	334	416	-
Stage 2	_		_	_	_	_	549	406	_	420	325	_
Jugo Z							J 7	700		720	323	
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.5			0.4			20.6			26.3		
HCM LOS							С			D		
Minor Lane/Major Mvmt		NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1			
Capacity (veh/h)		255	887		-	908	-	-	274			
HCM Lane V/C Ratio			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	Α	Α	_	A	A	_	D			
HCM 95th %tile Q(veh)		0.3	0.3	-	_	0.1	-	_	1.8			
		0.0	3.0			3.1			1.0			

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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 N	Major1			Major2		1	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	7.12	_	_	-	-	_	6.12	5.52	0.22	6.12	5.52	- 0.22
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	1770			1010	-	-	925	826	7/0	894	804	700
Stage 2	-			_	_	_	896	803	-	916	822	-
Platoon blocked, %						_	070	003		710	UZZ	
Mov Cap-1 Maneuver	1493			1509	-	-	762	692	976	736	689	956
Mov Cap-1 Maneuver	1473			1307	_	-	762	692	7/0	736	689	750
Stage 1	-	-	-	-	-	-	923	824	-	890	797	-
Stage 2							889	796	-	899	820	-
Siayt 2	-	-	-	-	-	-	007	170		077	020	-
Approach	EB			WB			NB			SB		
				0.6						9.7		
HCM LOS	0.1			0.0			9.4					
HCM LOS							А			А		
Minor Long/Mair M		VIDL1	EDI	EDT	EDD	MDI	WDT	MDD	CDL1			
Minor Lane/Major Mvm	IL I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:				
Capacity (veh/h)		843	1493	-		1509	-	-	765			
HCM Lane V/C Ratio		0.036		-	-	0.005	-	-	0.008			
HCM Control Delay (s)		9.4	7.4	0	-	7.4	0	-	9.7			
HCM Lane LOS		Α	Α	Α	-	Α	Α	-	Α			
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	LDL	4	LDIN	WDL	₩	WDIX	NDL	4	NDI	JUL	- JDT - ♣	JUIN
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	10	0	10	1	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	Jiop -	Jiop -	None	Jiop -	Jiop -	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 I	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	68	0	0	48	0	0	159	145	46	156	144	65
Stage 1	00	U	Ū	40	0	Ū	59	59	40	82	82	0.5
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	- 0.22	6.12	5.52	- 0.22
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			Α		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SRI n1			
	it l						VVD1					
Capacity (veh/h) HCM Lane V/C Ratio		834 0.058	1530 0.005	-	-	1556 0.006	-	-	774 0.056			
HCM Control Delay (s)		9.6	7.4	0	-	7.3	0	-	9.9			
HCM Lane LOS		9.6 A	7.4 A	A	-	7.3 A	A	-	9.9 A			
HCM 95th %tile Q(veh)	0.2	0	- A	-	0	A -	-	0.2			
HOW 75th 70the Q(Veh)		0.2	U	-		- 0	-	-	0.2			

Intersection Int Delay, s/veh 3 Movement EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL SBT SBR Lane Configurations 4 4 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
Movement EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL SBT SBR cane Configurations Fraffic Vol, veh/h 1 46 2 13 55 2 7 11 13 1 3 5
Anne Configurations
Fraffic Vol, veh/h 1 46 2 13 55 2 7 11 13 1 3 5
inture Vol. veh/h 1 16 2 13 55 2 / 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 Stop Stop Stop Stop Stop Stop
RT Channelized None None None
Storage Length
/eh in Median Storage, # - 0 0 0 -
Grade, % - 0 0 0 0 0 0 -
Peak Hour Factor 100 100 100 100 100 100 100 100 100 10
Heavy Vehicles, % 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 3 4 Vmt Flow 1 46 2 13 55 2 7 11 13 1 3 5
Avmt 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
Ainor Long/Major Mymt NDL n1 EDL EDT EDD WIDL WIDT WIDD CDL n1
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	<u>₽</u>	LDIN	VVDL	₩ <u>₩</u>	₩.	NDIX
Traffic Vol, veh/h	44	0	18	42	3	36
Future Vol, veh/h	44		18	42	3	36
		0	3		1	
Conflicting Peds, #/hr	0			0		0
	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage,		-	-	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
/						
	ajor1		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	-		3.318
Pot Cap-1 Maneuver	_	_	1560	_	869	1022
Stage 1	_	_	-	_	975	-
Stage 2	_	_	_	_	944	_
Platoon blocked, %	_			_	/ 7 7	
		-	1556		856	1019
Mov Cap-1 Maneuver	-	-		-		
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	U		2.2		Α	
FIGIVI EUS					A	
Minor Lane/Major Mvmt	1	VBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		1004	_	_	1556	-
			_		0.012	_
		0.039			J.J.L	
HCM Lane V/C Ratio		0.039	_	_	73	0
HCM Lane V/C Ratio HCM Control Delay (s)		8.7	-	-	7.3 Δ	0 Δ
HCM Lane V/C Ratio			-		7.3 A 0	0 A

Intersection												
Int Delay, s/veh	3.4											
	ΓDI	EDT	EDD	WDI	WDT	WDD	MDI	NDT	NDD	CDI	CDT	CDD
Movement	EBL	EBT ♣	EBR	WBL	WBT	WBR	NBL	NBT ♣	NBR	SBL	SBT ♣	SBR
Lane Configurations	2/		0	г		1	2		2	2). J.
Traffic Vol, veh/h	36	50	8	5	65	4	2	4	3	2	3	35
Future Vol, veh/h	36	50	8	5 1	65 0	4	2	4	3	2	3	35 1
Conflicting Peds, #/hr Sign Control			•	Free								
RT Channelized	Free	Free	Free None	riee -	Free	Free None	Stop	Stop	Stop None	Stop	Stop	Stop None
Storage Length	-	-	None -	-	-	None	-	-	None -	-		None
Veh in Median Storage	- e.# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-, π	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
IVIVIIIL I IOW	30	30	U	J	03	7		7	J		J	33
	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, %	150/	-	-	1544	-	-	/.00	(//	1011	707	///	001
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							Α			Α		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SRI n1			
Capacity (veh/h)	rc I	759		LDT		1544	-	- 1001	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		9.6 A	7.4 A	A	-	7.5 A	A	-	A			
HCM 95th %tile Q(veh))	0	0.1	- A	-	0	- A	-	0.1			
HOW FOUT TOUTE Q(VEH)		U	U. I	-	-	U		-	U. I			

Intersection Delay, s/veh Intersection LOS	9.3		
Intersection LOS	Α		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	А			Α			А			А		

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	А	Α	Α	Α	
HCM 95th-tile Q	0.7	0.3	0.5	1.6	

Intersection					
Intersection Delay, s/v	eh18.3				
Intersection LOS	С				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach R	ighNB			SB			WB			EB			
Conflicting Lanes Right	1			1			1			1			
HCM Control Delay	12			11			12.5			24.9			
HCM LOS	В			В			В			С			

Lane	NBLn1	EBLn1\	VBLn1	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	В	В	В	С
HCM 95th-tile Q	1.9	1.2	0.9	7.8

latan atta												
Intersection	F 4											
Int Delay, s/veh	5.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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 I	Major1		1	Major2			Minor1		- 1	Minor2		
Conflicting Flow All	11	0	0	86	0	0	66	66	49	69	103	11
Stage 1	- 11	-	-	- 00	-	-	53	53	49	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	٦.١٧	-		T. 1Z	_	-	6.12	5.52	0.22	6.12	5.52	0.22
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
Pot Cap-1 Maneuver	1608	_	-	1510	-	_	927	825	1020	923	787	1070
Stage 1	- 1000	_	_	-	_	_	960	851	1020	1007	885	-
Stage 2	_				_	-	1007	885	_	956	820	_
Platoon blocked, %		_	_		_	_	1001	000		700	020	
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	-
Jugo Z							.000	30 7		, 10	310	
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.6			9.5			0		
HCM LOS							Α			Α		
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		925	1608		_	1509		_	_			
HCM Lane V/C Ratio			0.001	_		0.001	_	_	_			
HCM Control Delay (s)		9.5	7.2	0	-	7.4	0	-	0			
HCM Lane LOS		A	Α	A	_	A	A	_	A			
HCM 95th %tile Q(veh))	0.5	0	-	-	0	-	-	-			
	,	3.0										

Intersection						
Int Delay, s/veh	0.7					
		EDD	NIDI	NDT	CDT	CDD
Movement Lang Configurations	EBL Y	EBR	NBL	NBT €Î	SBT	SBR **
Lane Configurations		20	0			
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		-	-	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 I	Minor2		Major1	Λ	/lajor2	
Conflicting Flow All	1612	636	755	0	- najorz	0
Stage 1	636	-	-	-	_	-
Stage 2	976			_	_	_
Critical Hdwy	6.42	6.22	4.12	_	_	_
Critical Hdwy Stg 1	5.42	0.22	4.12			
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	4/0	000	_	-	-
Stage 2	365	-	-	-	-	-
Platoon blocked, %	303	•	-	-	-	-
	110	177	052	-	-	-
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	С		011			
		ND	NDT	EDL 4	CDT	CDD
Administration of the second		וטוא	MRT	EBLn1	SBT	SBR
Minor Lane/Major Mvm	nt	NBL	1101			
Capacity (veh/h)	<u>I</u> T	853	-	339	-	-
Capacity (veh/h) HCM Lane V/C Ratio		853 0.011	-	339 0.186	-	-
Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s)		853 0.011 9.3	- - 0	339 0.186 18		- - -
Capacity (veh/h) HCM Lane V/C Ratio		853 0.011	-	339 0.186	-	

Movement		√	•	†	<u> </u>	<u> </u>	Ţ
Lane Configurations	Movement		\M/PD		•	CDI	ÇDT
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 O (Ob), veh 0 0 0 0 0 0 Ped-Bike Adj(A_pbT) 1.00 1.00 1.00 1.00 1.00 1.00 Adj Sta Flow, veh/h/In 1863 1900 1863 1900 0 1863 Adj Flow Rate, veh/h 444 12 366 0 0 2 0 0 2 Peak Hour Factor 1.00<			VVDK		NDK	JDL	
Future Volume (veh/h)			12		12E	0	
Number 7	, ,						
Initial Q (Qb), veh	, ,						
Ped-Bike Adj(A_pbT) 1.00 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Parking Bus, Adj 1.00				U			U
Adj Sal 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 457 0 366 0 0 3725 Grp Volume(v), veh/h 457 0 366 0 0 1770 Q Serve(g_s), s 6.5 0.0				4.00			1.00
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							
Adj No. of Lanes 0 0 2 0 0 2 Peak Hour Factor 1.00 0.00 0.0 0.42 2.0 0 2.2 0 2.2 0 2.2 0 2.2 0 2.2 0 2.2 0 2.2 0 2.2 0 0 2.7 2.0 0 1.47 0 0 1.47 0 0 1.47 0 0 1.77 0 0 1.77 0 0 1.77 0 0 0.0 0.0 5.1 1.77 0 0 0 0 0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Peak Hour Factor 1.00 1.471 0 0 1471 4.71 4.71 4.71 4.71 4.71 4.71 4.71 4.71 4.71 4.71 4.71 4.71 4.71 4.71 4.71 4.71 4.72							
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 0.0 5.1 V/C Ratio(X) 0.84 0.00 0.25 0.00 0.0 1.471 V/C Ratio(X) 0.84 0.00 0.25 0.00 0.0 0.282 HCM Plation Ratio 1.00							
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/In 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 1.00 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							
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/hIn 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 1.00 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 1.00 1.00 1.00 1.00 </td <td>3</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	3						
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 5.1 Prop In Lane 0.97 0.03 0.00 0.00 5.1 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 Platon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00							
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 0.0 Lane Grp Cap(c), veh/h 545 0 1471 0 0 1471 WC 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	Arrive On Green		0.31		0.00	0.00	
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 1.471 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 0.0 0.0 0.0 </td <td>Sat Flow, veh/h</td> <td>1718</td> <td>46</td> <td>3725</td> <td>0</td> <td>0</td> <td>3725</td>	Sat Flow, veh/h	1718	46	3725	0	0	3725
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 1.471 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 0.0 0.0 0.0 </td <td>Grp Volume(v), veh/h</td> <td>457</td> <td>0</td> <td>366</td> <td>0</td> <td>0</td> <td>856</td>	Grp Volume(v), veh/h	457	0	366	0	0	856
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 1.00 1.0							
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 1.00 Upstream Filter(I) 1.00 0.00 1.00 0.00 0.00 1.00 Upstream Filter(I) 1.00 0.00 1.00 0.00 0.00 1.00 Upstream Filter(I) 1.00 0.00 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0							
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							
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 1.00 Upstream Filter(I) 1.00 0.00 1.00 0.00 0.00 1.00 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 1.0 0.0 <t< td=""><td></td><td></td><td></td><td>1.0</td><td></td><td></td><td>3.1</td></t<>				1.0			3.1
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 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 Delay(b), s/veh 10.1 0.0 5.3 0.0 0.0 6.6 Approach Vol, veh/h 457 366 856 Approach LOS B </td <td></td> <td></td> <td></td> <td>1471</td> <td></td> <td></td> <td>1471</td>				1471			1471
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 0.0 %ile BackOfQ(50%),veh/ln 3.4 0.0 0.9 0.0 0.0 0.0 %ile BackOfQ(50%),veh/ln 3.4 0.0 0.9 0.0 0.0 0.0 %ile BackOfQ(50%),veh/ln 3.4 0.0 0.9 0.0 0.0 0.0 2.5 LnGrp Delay(d),s/veh 10.1 0.0 5.3 0.0 0.0 6.6 Approach Vol, veh/h 457 366 856 Appr							
HCM Platoon Ratio 1.00 0.0 0							
Upstream Filter(I) 1.00 0.00 1.00 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 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 A Approach Vol, veh/h 457 366 856 Approach Delay, s/veh 10.1 5.3 6.6 Approach LOS B A A A A A A Timer 1 2 3 4 5 Assigned Phs 2 4 6 6 Phs Duration (G+Y+Rc), s 15.8 11.4							
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 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 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 Assigned Phs 2 4 6 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 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	1 17						
Initial Q Delay(d3),s/veh 0.0 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 A A A A A A A A A A A A A A A A							
%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 Assigned Phs 2 4 6 6 6 Phs Duration (G+Y+Rc), s 15.8 11.4 15.8 15.8 11.4 15.8 15.8 17.5 15.0 17.5 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>							
LnGrp Delay(d),s/veh 10.1 0.0 5.3 0.0 0.0 6.6 LnGrp LOS B A 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 Assigned Phs 2 4 6 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							
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 Assigned Phs 2 4 6 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							
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 Assigned Phs 2 4 6 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	. 3		0.0		0.0	0.0	
Approach Delay, s/veh 10.1 5.3 6.6 Approach LOS B A A Timer 1 2 3 4 5 6 Assigned Phs 2 4 6 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							
Approach LOS B A A Timer 1 2 3 4 5 6 Assigned Phs 2 4 6 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+l1), s 3.8 8.5 7.1 Green Ext Time (p_c), s 2.3 0.1 4.2 Intersection Summary	• •						
Timer 1 2 3 4 5 6 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	Approach Delay, s/veh	10.1		5.3			6.6
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+l1), s 3.8 8.5 7.1 Green Ext Time (p_c), s 2.3 0.1 4.2 Intersection Summary	Approach LOS	В		Α			А
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+l1), s 3.8 8.5 7.1 Green Ext Time (p_c), s 2.3 0.1 4.2 Intersection Summary	Timer	1	2	3	4	5	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+l1), s 3.8 8.5 7.1 Green Ext Time (p_c), s 2.3 0.1 4.2 Intersection Summary						- 0	
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+l1), s 3.8 8.5 7.1 Green Ext Time (p_c), s 2.3 0.1 4.2 Intersection Summary							
Max Green Setting (Gmax), s 17.5 15.0 17.5 Max Q Clear Time (g_c+l1), s 3.8 8.5 7.1 Green Ext Time (p_c), s 2.3 0.1 4.2 Intersection Summary							
Max Q Clear Time (g_c+l1), s 3.8 8.5 7.1 Green Ext Time (p_c), s 2.3 0.1 4.2 Intersection Summary							
Green Ext Time (p_c), s 2.3 0.1 4.2 Intersection Summary							
Intersection Summary							
	Green Ext Time (p_c), s		2.3		U. I		4.2
HCM 2010 Ctrl Delay 7.2							
	HCM 2010 Ctrl Delay			7.2			
HCM 2010 LOS A	HCM 2010 LOS			Α			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4₽	7		414			र्स	7		र्स	7
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	С	С	В	С		С	D		С	D		С
Approach Vol, veh/h		890			344			370			420	
Approach Delay, s/veh		17.4			22.0			36.2			35.6	
Approach LOS		В			С			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+l1), 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			С									

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Novement	EBL	EBT	WBT	WBR	SBL	SBR	
ane Configurations	<u> </u>	<u></u>	<u> </u>	7	ሻ	7	
raffic Volume (veh/h)	411	374	213	552	469	248	
uture Volume (veh/h)	411	374	213	552	469	248	
lumber	5	2	6	16	7	14	
nitial 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	
dj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	
dj Flow Rate, veh/h	411	374	213	552	469	248	
dj 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	
rrive 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 Volume(v), ven/n Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1533	469 1774	1583	
Serve(g_s), s	29.5	11.5	10.6	25.4	33.5	11.2	
			10.6	25.4		11.2	
Sycle Q Clear(g_c), s	29.5 1.00	11.5	10.0	1.00	33.5 1.00	1.00	
rop In Lane		1011	407			849	
ane Grp Cap(c), veh/h	445	1211	687	1017	506		
/C Ratio(X)	0.92	0.31	0.31	0.54	0.93	0.29	
vail Cap(c_a), veh/h	694	1211	687	1017	773	1087	
CM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Ipstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Iniform Delay (d), s/veh	47.6	10.0	29.3	12.2	45.3	16.6	
ncr Delay (d2), s/veh	12.9	0.7	1.2	2.1	11.3	0.1	
nitial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
6ile BackOfQ(50%),veh/ln	16.0	6.0	5.7	20.2	18.0	13.2	
nGrp Delay(d),s/veh	60.5	10.6	30.5	14.3	56.6	16.8	
nGrp LOS	E	В	C	В	E	В	
pproach Vol, veh/h		785	765		717		
pproach Delay, s/veh		36.8	18.8		42.8		
pproach LOS		D	В		D		
mer	1	2	3	4	5	6	7 8
ssigned 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+l1), s		13.5		35.5	31.5	27.4	
Green Ext Time (p_c), s		1.6		1.7	1.2	0.6	
4 – <i>7</i>		1.0		1.,	1.2	3.0	
ntersection Summary			22.7				
ICM 2010 Ctrl Delay			32.6				
ICM 2010 LOS			С				
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Background AM.syn Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4	7		4P		¥	∱ Ъ	
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	C
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	С			С		В		D	D	С	А	А
Approach Vol, veh/h		203			362			932			1006	
Approach Delay, s/veh		32.1			14.4			44.0			10.4	
Approach LOS		С			В			D			В	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	<u> </u>	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+l1), 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			23.2 C									
Notes												
* HCM 2010 computational en	gine requ	uires equa	al clearan	ce times	for the ph	ases cros	ssing the	barrier.				

Background AM.syn Hexagon

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	44	ተተተ	ተተኈ		ሻ	77	
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	С	В	С	С	С	В	
Approach Vol, veh/h		2260	811		1290		
Approach Delay, s/veh		18.0	25.2		18.0		
Approach LOS		В	С		В		
•	1			4		,	
Timer	1	2	3	4	5	6	
Assigned Phs	10.5	2				6	
Phs Duration (G+Y+Rc), s	18.5	25.5				44.0	
Change Period (Y+Rc), s	4.0	4.0				4.0	
Max Green Setting (Gmax), s	18.0	18.0				40.0	
Max Q Clear Time (g_c+l1), s	13.6	12.3				19.0	
Green Ext Time (p_c), s	0.9	2.5				12.8	
Intersection Summary							
HCM 2010 Ctrl Delay			19.4				
HCM 2010 LOS			В				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ň	4	7	ň	4		ħ	† †	7	ň	† †	7
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	В	A	A	F	E	<u>C</u>
Approach Vol, veh/h		667			71			1207			1302	
Approach Delay, s/veh		70.1			74.2			2.0			49.1	
Approach LOS		Е			Е			А			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 (q_c+l1), 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 balanci	ing amor	ng the lan	es for turr	ning move	ement.							

Background AM.syn Hexagon HCM LOS

D

Intersection													
Intersection Delay, s/ve	eh34.3												
Intersection LOS	D												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	ሻ	†	7	ሻ	₽			ની	7		4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			2			3			2			
Conflicting Approach R				SB			WB			EB			
Conflicting Lanes Right	t 2			1			2			3			
HCM Control Delay	30.1			45.7			22.4			33.6			
	_			_			_			_			

Lane	NBLn11	NBLn2	EBLn1	EBLn2	EBLn3\	NBLn1\	VBLn2	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	С	С	В	Е	В	С	F	D
HCM 95th-tile Q	2.8	3.1	0.3	5.8	0.6	3.3	9.7	5.2

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		414			€1₽		ሻ	ተተኈ		7	† †	7
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		Е	F	F	F	Е	С	
Approach Vol, veh/h		154			584			1804			1557	
Approach Delay, s/veh		54.6			76.9			224.9			33.3	
Approach LOS		D			Е			F			С	
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 (q_c+l1), 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				
ų = 7·	0.7	17.1		0.0	0.0	13.0		3.0				
Intersection Summary			1047									
HCM 2010 Ctrl Delay			124.7									
HCM 2010 LOS			F									

Lane Configurations		۶	→	•	•	←	•	•	†	<i>></i>	/	+	4
Lane Configurations	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Lane Configurations	ሻ	∱ ∱		77	†	7	ሻ	† †	7	44	† †	7
Number 7 4 14 3 8 8 18 5 2 12 12 1 6 11 Initial O(Db), veh 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		152	320	57	408	283	165	66	1562	465	237	1285	65
Initial O (Ob), weh O O O O O O O O O O O O O O O O O O	Future Volume (veh/h)	152	320	57	408	283	165	66	1562	465	237	1285	65
Ped-Bike Adji(A_pbT)	Number	7	4	14	3	8	18	5	2	12	1	6	16
Parking Bus, Adj Adj Sat Flow, veh/hln 1863 1	Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Adj Saf Flow, vehrhin 1863 1863 1900 1863 1863 1863 1863 1863 1863 1863 1863	Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.99	1.00		1.00
Adj Flow Rate, veh/h 152 320 57 408 283 165 66 1562 465 237 1285 64 Adj No. of Lanes 1 2 0 2 1 1 1 2 2 2 Per Peak Hour Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	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 No of Lanes	Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1863	1863	1863	1863
Peak Hour Factor	Adj Flow Rate, veh/h	152	320	57	408	283	165	66	1562	465	237	1285	65
Percent Heavy Veh, % 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	2	1
Cap, veh/h Arrive On Green 0.10 0.13 0.13 0.14 0.17 0.17 0.05 0.55 0.55 0.08 0.80 0.58 0.58 0.58	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
Cap, veh/h 174 398 70 465 317 389 83 1946 1074 282 2070 108° 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 1Flow, veh/h 1774 2988 525 3442 1863 1522 1774 3539 1564 3442 3539 1583 1587 New 1949 152 188 189 408 283 165 66 1562 465 237 1285 68 1679 Staf Flow(s), veh/h/h 1774 1770 1743 1721 1863 1522 1774 1770 1564 1721 1770 1583 02 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 Serve(g_s), s 13.5 16.5 16.9 18.6 23.3 18.4 19.0 18.0 18.0 18.0 18.0 18.0 18.0 18.0 18	Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Sal 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 66 1774 1770 1783 1781 1781 1782 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 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 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 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 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 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 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 Cycle Q Clear(g.c), selv/h 174 236 232 2465 317 389 83 1946 1074 282 2070 108 VIC Ratio(X) 0.87 0.88 0.89 0.42 0.79 0.80 0.43 0.44 0.40 100 1.00 1.00 1.00 1.00 1.00		174	398	70	465	317	389	83	1946	1074	282	2070	1081
Grp Volume(v), veh/h 152 188 189 408 283 165 66 1562 465 237 1285 66 Grp Sat Flow(s), veh/h/ln 1774 1770 1743 1721 1863 1522 1774 1770 1764 1770 1763 1721 1863 1522 1774 1770 1764 1770 1764 1770 1763 1771 1770 1763 1771 1770 1763 1771 1770 1763 1771 1770 1763 1771 1770 1763 1771 1770 1763 1771 1770 1763 1770 1763 1770 1764 1770 1764 1770 1764 1770 1764 1770 1764 1770 1764 1770 1764 1770 1764 1770 1764 1770 1766 1771 1770 1768 1770 1768 1771 1770 1768 1771 1770 1768 1771 1770 1768 1770 1768 1771 1770 1768 1770 1768 1771 1770 1768 1770 1768 1771 1770 1768 1770 1768 1770 1770 1768 1770 1781 1781	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
Grp Sat Flow(s), veh/h/ln	Sat Flow, veh/h	1774	2988	525	3442	1863	1522	1774	3539	1564	3442	3539	1583
Grp Sat Flow(s), veh/h/ln	Grp Volume(v), veh/h	152	188	189	408	283	165	66	1562	465	237	1285	65
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 2.7 Cycle O 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 2.7 Prop In Lane 1.00 0.30 1.00<													1583
Cycle Q Člear(g_c), s													2.2
Prop In Lane													2.2
Lane Grp Cap(c), veh/h 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 0.70 0.80 0.82 0.88 0.89 0.42 0.79 0.80 0.43 0.84 0.62 0.70 0.80 0.82 0.80 0.82 0.88 0.89 0.42 0.79 0.80 0.43 0.84 0.62 0.70 0.80 0.81 0.84 0.62 0.70 0.80 0.82 0.88 0.89 0.42 0.79 0.80 0.43 0.84 0.62 0.70 0.80 0.81 0.81 0.82 0.88 0.89 0.42 0.79 0.80 0.43 0.84 0.62 0.70 0.80 0.81 0.81 0.82 0.88 0.89 0.42 0.79 0.80 0.43 0.84 0.62 0.70 0.80 0.81 0.81 0.82 0.88 0.89 0.42 0.79 0.80 0.43 0.84 0.62 0.70 0.80 0.81 0.81 0.84 0.62 0.70 0.80 0.81 0.81 0.84 0.62 0.70 0.80 0.81 0.81 0.84 0.62 0.70 0.80 0.83 0.84 0.62 0.70 0.80 0.81 0.84 0.62 0.70 0.80 0.81 0.84 0.62 0.70 0.80 0.83 0.84 0.62 0.70 0.80 0.83 0.84 0.62 0.70 0.80 0.81 0.84 0.62 0.70 0.80 0.80 0.83 0.84 0.62 0.70 0.80 0.80 0.83 0.84 0.62 0.70 0.80 0.80 0.83 0.84 0.62 0.70 0.80 0.80 0.83 0.84 0.62 0.70 0.80 0.80 0.83 0.84 0.62 0.70 0.80 0.80 0.80 0.83 0.84 0.62 0.70 0.80 0.80 0.83 0.84 0.62 0.70 0.80 0.80 0.80 0.83 0.84 0.62 0.70 0.80 0.80 0.83 0.84 0.62 0.70 0.80 0.80 0.80 0.80 0.83 0.84 0.62 0.70 0.80 0.80 0.80 0.80 0.83 0.84 0.62 0.70 0.80 0.10 0.100 0.1	,0_ ,												1.00
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 0.00 Avail Cap(c_a), veh/h 233 287 283 624 396 453 144 1946 1074 344 2070 108* HCM Platoon Ratio 1.00 <			236			317			1946			2070	1081
Avail Cap(c_a), veh/h 233 287 283 624 396 453 144 1946 1074 344 2070 1087 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0													0.06
HCM Platoon Ratio 1.00 0.0													1081
Upstream Filter(I)													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 lncr 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 0.7 lnitial Q Delay(d3), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.													1.00
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 0.7 Initial Q Delay(d3), s/veh 0.0 0.					67.9		50.2		29.0			21.7	8.4
Initial Q Delay(d3),s/veh 0.0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.7</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.1</td>							0.7						0.1
%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 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 Max Green Sett				0.0	0.0		0.0					0.0	0.0
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 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, l), s 0.2													1.0
LnGrp LOS F E F E F E F D F C B F C Approach Approach Vol, veh/h 529 856 2093 1587 Approach Delay, s/veh 84.4 75.0 30.0 32.0 32.0 Approach LOS F E C C C Timer 1 2 3 4 5 6 7 8 Assigned Phs 1 2 3 4 5 6 7 8 Phs Duration (G+Y+Rc), s 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 4.0 4.0 4.0 A.0 A.0 A.0 A.0 4.0 4.0 4.0 4.0 A.0 A.0<	` '		79.2	81.5		83.8		90.8	32.6	12.6	86.8	23.1	8.5
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 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 LOS D												С	А
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 <td></td> <td></td> <td>529</td> <td></td> <td></td> <td>856</td> <td></td> <td></td> <td>2093</td> <td></td> <td></td> <td>1587</td> <td></td>			529			856			2093			1587	
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	• •												
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+l1), 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			_										
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		1	2	3	Δ		6	7					
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													
Change Period (Y+Rc), s 4.0 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+l1), 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	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													
Max Q Clear Time (g_c+l1), 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													
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													
HCM 2010 Ctrl Delay 43.9 HCM 2010 LOS D Notes													
HCM 2010 Ctrl Delay 43.9 HCM 2010 LOS D Notes	Intersection Summary												
HCM 2010 LOS D Notes				43.9									
	Notes												
		t turn ty	oe.										

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Movement	₩BL	WBR	NBT	NBR	SBL	SBT	
	WBL TT	NDK 77	<u>₩</u>	NDK	SDL	<u>361</u>	
Lane Configurations	711	737	2096	0	0	1051	
Traffic Volume (veh/h)		737	2096	0	0	1051	
Future Volume (veh/h)	711				0		
Number	3	18 0	2	12 0	1	6	
Initial Q (Qb), veh	1.00		0		1.00	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
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	3.0	3.0	В	
Approach Vol, veh/h	1448		2096			1051	
Approach Delay, s/veh	32.0		27.6			10.1	
Approach LOS	32.0 C		27.0 C			В	
• •	C					D	
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 (q_c+l1), 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			25.0 C				
HCIVI 2010 LOS			C				

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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Movement Lang Configurations	EBL TT	EBR	INDL	↑ ↑	281	SDK
Lane Configurations Traffic Values (value)			0			^
Traffic Volume (veh/h)	1299	451 451	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
1 ' '	29.1	19.1		20.0	2.0	
Q Serve(g_s), s			0.0			0.0
Cycle Q Clear(g_c), s	29.1	19.1	0.0	20.0	2.0	
Prop In Lane	1.00	1.00	0.00	4757	4757	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	55.2 D	23.0 C	0.0	17.2 B	3.7 A	0.0
		C				
Approach Vol, veh/h	1750			1173	1553	
Approach Delay, s/veh	32.1			17.2	5.7	
Approach LOS	С			В	Α	
Timer	1	2	3	4	5	6
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
						4.0
Max Q Clear Time (g_c+l1), s		22.0		31.1		
Green Ext Time (p_c), s		5.7		1.0		10.9
Intersection Summary						
HCM 2010 Ctrl Delay			19.0			
HCM 2010 LOS			В			

Cap

Service Time

HCM Lane V/C Ratio

HCM Control Delay

HCM Lane LOS

HCM 95th-tile Q

555

14.2

В

2.1

4.543 4.588

526

12.9

В

1.4

0.42 0.331 0.333 0.476

546

12.6

В

1.5

536

15.5

С

2.6

4.34 4.467 4.217 4.611

555

13.2

В

1.8

0.38 0.337

546

12.9

В

1.5

Intersection													
Intersection Delay, s/ve	h13.7												
Intersection LOS	В												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4TÞ			4ÎÞ			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			2			2			
Conflicting Approach R	ightNB			SB			WB			EB			
Conflicting Lanes Right	1			1			2			2			
HCM Control Delay	12.7			14.5			14.2			12.9			
HCM LOS	В			В			В			В			
Lane	N	IBLn1 I	EBLn1	EBLn2V	VBLn1\	VBLn2	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		0.479		0.335						
Departure Headway (H	d)	6.501	6.848	6.599	6.767		6.564						
Convergence, Y/N		Yes	Yes	Yes	Yes	Yes	Yes						

Intersection												
Int Delay, s/veh	6.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		414			414			4			4	
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 N	/lajor1		N	Major2			Minor1		Λ	/linor2		
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							С			E		
Minor Lane/Major Mvm	t N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	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		20.7 C	Α	Α	_	Α.	Α	_	E			
HCM 95th %tile Q(veh)		0.6	0.2	-	_	0	-	_	4.6			
1.5W 75W 75W 76W Q(VCH)		0.0	0.2			U			1.0			

Intersection												
Int Delay, s/veh	3.5											
		EBT	EDD	WDI	WDT	WDD	NIDI	NDT	NDD	CDI	CDT	CDD
Movement Lang Configurations	EBL	EDI	EBR	WBL	WBT	WBR	NBL	NBT ↔	NBR	SBL	SBT ↔	SBR
Lane Configurations	0		٦F	/ 2		1	11		/0	1		0
Traffic Vol, veh/h	0	77 77	25	63	125	1	11	1	69 69	4	5	0
Future Vol, veh/h	0 4	0	25 1	63	125 0	1	11	1 0	09	4	5 0	0
Conflicting Peds, #/hr Sign Control				Free			•		•			
RT Channelized	Free	Free	Free None	riee -	Free -	Free None	Stop	Stop	Stop None	Stop	Stop	Stop None
Storage Length	-	-	None	-	-	None	-	-	None			None
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
IVIVIII I IOVV			23	00	123		11		07		J	
	_											
	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	2 210	-	-	2 210	-	-	6.12	5.52	2 210	6.12	5.52	2 210
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 Platoon blocked, %	-	-	-	-	-	-	749	696	-	878	810	-
Mov Cap-1 Maneuver	1450	-	-	1488	-	-	582	547	963	513	540	915
Mov Cap-1 Maneuver	1450	-	-	1400	-	-	582	547	903	513	540	915
Stage 1	-	-	-	-	-	-	915	819	-	747	662	-
Stage 2		_		_	_		709	662	-	813	809	-
Jiayt Z		_	_	_	-	_	107	002	_	013	007	_
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.5			9.5			11.9		
HCM LOS							Α			В		
Minor Lane/Major Mvm	nt I	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	-				
HCM Lane LOS		Α	A	-	-	A	A	-	В			
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		4			4			4			4	
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	e,# -	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 N	Major1			Major2		1	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							В			В		
Minor Lane/Major Mvm	nt [VBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)		702	1498	-	-	1511	-		635			
HCM Lane V/C Ratio			0.004	-	-	0.051	-	-	0.121			
HCM Control Delay (s)		10.3	7.4	0	-	7.5	0	-	11.5			
HCM Lane LOS		В	Α	Α	-	Α	Α	-	В			
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		4			4			4			4	
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	e, # -	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 N	Major1		<u> </u>	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							В			В		
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBI n1			
Capacity (veh/h)	1	735	1419	-		1518	-					
HCM Lane V/C Ratio		0.038		-		0.037	-		0.025			
HCM Control Delay (s)		10.1	7.6	0	-	7.5	0	-				
HCM Lane LOS		В	Α.	A	-	7.5 A	A	-	В			
HCM 95th %tile Q(veh))	0.1	0	-	_	0.1	-	-	0.1			
110W 70W 70W Q(VCH)		U, I	0			J. I			U. I			

Intersection						
Int Delay, s/veh	3.8					
		EDD	MA	MOT	ND	NDD
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	f)			र्स	Ą	
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
		_		_		
	lajor1		Major2		Vinor1	
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-1 Maneuver	-		1401	-	752	747
	-	-	-	-	917	-
Stage 1	-	-	-	-		
Stage 2	-	-	-	-	887	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.4		9.3	
HCM LOS	U		2.1		A	
TIOWI LOG						
Minor Lane/Major Mvmt	1	VBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)		942	-	-	1481	-
HCM Lane V/C Ratio		0.106	-		0.022	-
HCM Control Delay (s)		9.3	-	-		0
HCM Lane LOS		Α	-	-	A	A
HCM 95th %tile Q(veh)		0.4	-	-	0.1	-
2(1011)						

Intersection												
Intersection Int Delay, s/veh	4.1											
										0.5:		0.0.5
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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 I	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		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			_	. 020	_	_	495	531	-	556	531	-
Stage 1	-	-	-	-	-	-	724	670	-	824	788	-
Stage 2	-	-	_	_	_	-	772	787	-	712	670	-
2.a.go 2							.,_				3.0	
Approach	EB			WB			NB			SB		
HCM Control Delay, s	4			0.1			10.8			9.7		
HCM LOS	4			U. I			10.6 B			9.7 A		
TIOWI LOS							ט			A		
Minor Lang/Major Mum	\t	\IDI 51	EDI	EDT	EDD	WDI	WDT	WBR	CDI 51			
Minor Lane/Major Mvm	it I	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR				
Capacity (veh/h)		633	1460	-	-	1525	-	-	847			
HCM Cantral Dalay (a)		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		В	Α	Α	-	Α	Α	-	Α			
HCM 95th %tile Q(veh	`	0.1	0.2	_	_	0	_	_	0.3			

Intersection		
Intersection Delay, s/veh	8.8	
Intersection LOS	Α	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		₩			4			₩			4	
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	Α			Α			Α			Α		

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	А	Α	Α	А	
HCM 95th-tile Q	0.6	0.3	0.4	1.3	

Intersection Delay, s/veh18.8 Intersection LOS C	Intersection						
Intersection LOS C	Intersection Delay, s/v	eh18.8					
	Intersection LOS	С					

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach R	ightNB			SB			WB			EB			
Conflicting Lanes Right	1			1			1			1			
HCM Control Delay	12.8			15.1			15.7			25			
HCM LOS	В			С			С			С			

Lane	NBLn1	EBLn1\	NBLn1	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	С	В	С	С
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		4			4			4			4	
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	e,# -	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 I	Major1		I	Major2		<u> </u>	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, %	4500	-	-	45.5	-	-	0.5.	0.15	4000	0.55		40.11
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							Α			Α		
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR :	SBLn1			
Capacity (veh/h)		905	1599	-		1517	-	-	847			
HCM Lane V/C Ratio			0.001	-		0.003	-	_	0.006			
HCM Control Delay (s)		9.4	7.3	0	-	7.4	0	-	9.3			
HCM Lane LOS		Α	A	A	-	Α	A	-	A			
HCM 95th %tile Q(veh))	0.3	0	-	-	0	-	-	0			

Intersection						
Int Delay, s/veh	0.7					
		EDD	NDI	NDT	CDT	CDD
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥	0.0	0.1	4	†	7
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	e, # 2	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mymt Flow	40	20	21	1016	766	50
IVIVIIIL I IOW	40	20	Z 1	1010	700	50
Major/Minor	Minor2		Major1	N	/lajor2	
Conflicting Flow All	1827	769	819	0	-	0
Stage 1	769	-	-	-	_	-
Stage 2	1058	_	_	_	_	_
Critical Hdwy	6.42	6.22	4.12	-	-	-
			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	-				
Staye 2	333	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	20.4		0.2		0	
HCM LOS	20.4 C		0.2		- 0	
HOW LOS	U					
Minor Lane/Major Mvm	nt	NBL	NBT I	EBLn1	SBT	SBR
Capacity (veh/h)		808				
HCM Lane V/C Ratio		0.026		0.204		_
HCM Control Delay (s)		9.6	0	20.4	_	
J ()						
HCM Lane LOS	`	A	Α	С	-	-
HCM 95th %tile Q(veh)	0.1	-	0.8	-	-

	•	•	†	~	<u> </u>	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		†		UDL	†
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	1.00	1.00	0	2
•	358	28	1431	0	0	1431
Cap, veh/h	0.22	0.22	0.40	0.00	0.00	0.40
Arrive On Green						
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	Α	0.0	A	0.0	0.0	A.S
Approach Vol, veh/h	308		372			616
Approach Delay, s/veh	8.8		4.1			4.5
Approach LOS	Α		А			А
Timer	1	2	3	4	5	6
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 (q_c+I1), s		3.4		5.3		4.5
Green Ext Time (p_c), s		2.5		0.1		3.6
" - '				J		0.0
Intersection Summary						
HCM 2010 Ctrl Delay			5.4			
HCM 2010 LOS			Α			

	•	-	•	•	-	•	•	†	/	<u> </u>	+	-√
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		41₽	7		414			4	7		4	7
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	0.7	1.00	0.05	0.0	0.35	0.51	0.0	1.00	0.18	0.0	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	0.00	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	С	C	A	C	0,0	С	D	0.0	C	D	0.0	С
Approach Vol, veh/h		692			517		_	355			461	
Approach Delay, s/veh		16.7			23.0			37.8			35.8	
Approach LOS		В			C			D			D	
Timer	1	2	2	4		L	7					
			3		5	6	/	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+l1), 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			27.4									
HCM 2010 Ctrl Delay			26.4									
HCM 2010 LOS			С									

Movement				•	*	4	
no vonnone	EBL	EBT	WBT	WBR	SBL	SBR	
ane Configurations	ሻ	†	†	7	ነ	7	
Fraffic 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	
nitial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	Ü	0	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	
2 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	4050	7.40	1.00	1.00	1.00	
_ane Grp Cap(c), veh/h	431	1258	748	1028	461	797	
//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	
Jpstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Jniform Delay (d), s/veh	48.2	8.2	29.5	12.8	46.7	20.8	
ncr Delay (d2), s/veh	17.9	0.5	2.6	2.9	15.5	0.3	
nitial 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	
_nGrp Delay(d),s/veh	66.1	8.7	32.1	15.7	62.2	21.1	
_nGrp LOS	E	Α	С	В	E	С	
Approach Vol, veh/h		713	1033		783		
Approach Delay, s/veh		41.3	21.9		43.3		
Approach LOS		D	С		D		
imer	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+l1), s		10.4		32.1	31.1	33.7	
Green Ext Time (p_c), s		1.3		1.7	0.5	2.2	
ч — 7		1.3		1.7	0.5	۷.۷	
ntersection Summary			24.0				
HCM 2010 Ctrl Delay			34.0				
HCM 2010 LOS			С				
Votes							
HCM 2010 computational en	aine real	ires equa	al clearan	ce times t	or the ph	ases cros	ssing the harrier

Background PM.syn Hexagon

	•	→	•	•	←	•	•	†	~	>	↓	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4	7		ፋቤ		ň	↑ 1>	
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	C
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	C
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(q_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	Е			Е		В	D		Е	С	А	А
Approach Vol, veh/h		78			283			1006			954	
Approach Delay, s/veh		64.3			24.9			56.6			6.1	
Approach LOS		E			С			Е			А	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	<u> </u>	2	<u> </u>	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+l1), s		9.4		14.9	8.4	39.4		7.3				
Green Ext Time (p_c), s		6.3		0.3	0.4	7.5		0.8				
Intersection Summary												
HCM 2010 Ctrl Delay			32.2									
HCM 2010 LOS			32.2 C									
Notes												
* HCM 2010 computational en	gine req	uires equa	al clearan	ce times	for the ph	ases cros	ssing the	barrier.				

Background PM.syn Hexagon

	<u> </u>		—	•	_		
Marramant		- >	MOT			CDD	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	777	↑ ↑↑	^^	247	270	77	
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	7.0	17.0	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	
1 11							
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	С	А	С	С	С	В	
Approach Vol, veh/h		1364	1694		827		
Approach Delay, s/veh		15.7	22.8		21.1		
Approach LOS		В	С		С		
Timer	1	2	3	4	5	6	
Assigned Phs	1	2				6	
Phs Duration (G+Y+Rc), s	17.4	32.6				50.0	
Change Period (Y+Rc), s	4.0	4.0				4.0	
Max Green Setting (Gmax), s	16.0	26.0				46.0	
Max Q Clear Time (g_c+l1), s	12.6	21.7				6.0	
Green Ext Time (p_c), s	0.8	3.5				6.4	
4 – <i>7</i>	0.0	ა.ა				0.4	
Intersection Summary							
HCM 2010 Ctrl Delay			19.9				
HCM 2010 LOS			В				

	۶	→	*	•	←	•	1	†	~	/	+	- ✓
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ň	4	7	ሻ	f)		Ŋ	^	7	Ŋ	^	7
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	C
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(q_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	0.0	1.00	1.00	0.0	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	0.0	D	D	0.0	D	F	В	A	E	В	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			57.0 E			В	
	1		2			,	-				D	
Timer Assigned Phs	1	2	3	4	<u> </u>	6	7	8				
	6.1			12.4		6 54.1		8 21 E				
Phs Duration (G+Y+Rc), s		59.0		13.4 * 4.2	11.0			21.5				
Change Period (Y+Rc), s	4.0	4.6			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+l1), 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 balanc	ing amor	ng the lan	es for turi	ning move	ement.							

Intersection

Lane Flow Rate

Geometry Grp

Degree of Util (X)

Convergence, Y/N

HCM Lane V/C Ratio

HCM Control Delay

HCM Lane LOS

HCM 95th-tile Q

Service Time

Cap

Departure Headway (Hd)

234

Yes

370

28.2

D

4.2

0.632 0.541

8

220

0.636 0.541 0.123

Yes

407

21.6

C

3.1

8

45

Yes

366

13.9

В

0.4

8

9.777 8.857 9.828 9.309 8.581 10.103

379

Yes

390

71.9

11.4

7.515 6.595 7.564 7.044 6.316 7.843 7.259 8.157

0.123 0.972 0.205 0.507

8

86

8

Yes

419

13.5

В

8.0

182

0.98 0.205 0.511 0.703 0.549

Yes

359

23

C

2.8

8

266

Yes

380

32

D

5.2

8

9.52 10.397

0.7 0.546

IIICISCUIOII													
Intersection Delay, s/ve	h36.1												
Intersection LOS	Е												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	ሻ	†	7	ሻ	ĵ»			4	7		4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			2			3			2			
Conflicting Approach Ri	igh t 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			С			D			
Lane	N	IBLn11	NBLn2 E	EBLn1 I	EBLn2	EBLn3V	VBLn1V	VBLn2 S	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				

190

Yes

348

25.2

D

3.1

8

	•	→	•	•	←	•	•	†	<i>></i>	<u> </u>	+	- ✓
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4T)			€Î∌		ሻ	ተተኈ		ň	† †	7
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(q_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	0.7	0.00	0.79	0.0	0.82	1.00	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	0.0	F	0.0	F	F	F	F	F	C	0.0
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	J				1					
9				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+l1), 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			05.4									
HCM 2010 Ctrl Delay			95.1									
HCM 2010 LOS			F									

	•	→	•	•	-	•	•	†	~	/	+	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	∱ ∱		44	†	7	Ŋ	^	7	44	† †	7
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	Е	Е	E	E	D	С	E	С	Α	Е	С	А
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	
••	1		2	1		<i>L</i>	7					
Timer Assigned Phs	1	<u>2</u> 2	3	4	<u>5</u> 5	<u>6</u> 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		30.0		11.0	67.0	17.0	34.0				
		61.0		21.0								
Max Q Clear Time (g_c+l1), 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			05.0									
HCM 2010 Ctrl Delay			35.0									
HCM 2010 LOS			D									
Notes												
User approved changes to righ	nt turn typ	oe.										

	•	•	+	<u> </u>			
Movement	₩BL	WBR	NBT	NBR	SBL	▼ SBT	
Lane Configurations	WBL ሻሻ	אטיע 🔭	<u>₩</u>	NDIX	JDL	<u>361</u>	
Traffic Volume (veh/h)	508	294	2123	0	0	987	
Future Volume (veh/h)	508	294	2123	0	0	987	
Number	300	18	2123	12	1	6	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	U	1.00	1.00	U	
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	294	2123	0	0	2	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	
	2	2	1.00	0	0	2	
Percent Heavy Veh, %	676	548	2477	0	0	2477	
Cap, veh/h Arrive On Green	0.20	0.20	0.70	0.00	0.00	0.70	
	3442	2787	3725		0.00	3725	
Sat Flow, veh/h				0			
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	0.477	0.00	0.00	0.477	
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	8.0	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	С	С	В			Α	
Approach Vol, veh/h	802		2123			987	
Approach Delay, s/veh	31.2		11.2			5.5	
Approach LOS	С		В			А	
Timer	1	2	3	4	5	6	7
Assigned Phs	<u>'</u>	2			<u> </u>	6	,
Phs Duration (G+Y+Rc), s		60.1				60.1	19.
Change Period (Y+Rc), s		4.1				4.1	4.:
Max Green Setting (Gmax), s		46.7				46.7	25.0
Max Q Clear Time (g_c+l1), s		38.0				11.3	13.
		38.0 7.7				8.7	
Green Ext Time (p_c), s		1.1				0.1	2.0
Intersection Summary			12.0				
HCM 2010 Ctrl Delay			13.8				
HCM 2010 LOS			В				

						,
	•	*	1	†	¥	∢
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	1/1/	7		† †	^	
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	0.00	3725	3725	0.00
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	1/00	1/00	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	С	В		В	Α	
Approach Vol, veh/h	1774			1077	970	
Approach Delay, s/veh	25.5			18.8	3.2	
Approach LOS	С			В	Α	
	1	2	2			,
Timer		2	3	4	5	6
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			В			
I TOTAL ED TO LOG			D			

Intersection				
Intersection Delay, s/v	reh14.2			
Intersection LOS	В			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		414			414			4			4		
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 L	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			2			2			
Conflicting Approach R	igh N B			SB			WB			EB			
Conflicting Lanes Righ	t 1			1			2			2			
HCM Control Delay	15.8			12.8			12.9			13.3			
HCM LOS	C			В			В			В			

Lane	NBLn1	EBLn1	EBLn2V	VBLn1V	VBLn2	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	В	С	С	В	В	В	
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		414			4Th			4			4	
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 V	lajor1		N	/lajor2		ı	Minor1		ı	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 S	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	Α.	Α	_	Α	Α	_	57.7			
HCM 95th %tile Q(veh)		0.3	0.3	-	_	0.1	-	_	4.5			
1101V1 70111 701110 Q(VCII)		0.0	0.0			0.1			1.0			

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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 I	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	92	0	0	82	0	0	184	187	78	194	191	92
Stage 1	92	-	-	02	-	-	79	79	78	194	191	92
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	4.12	-		4.12	-	-	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 2	-			_	-		6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	_	_	2.218	_	-	3.518		3.318	3.518	4.018	
Pot Cap-1 Maneuver	1503	_	_	1515	_	_	777	708	983	765	704	965
Stage 1	- 1000	_	_	-	_	_	930	829	703	898	807	703
Stage 2	_	_	_	_	_	-	901	806	_	921	825	-
Platoon blocked, %		_	_		_	_	701	000		/ _ / _ 1	020	
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	_
							3,1	.,,		, , ,	320	
				WD			, LE			0.5		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.6			9.4			9.7		
HCM LOS							Α			Α		
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		850	1498	-	-	1514	-	-	774			
HCM Lane V/C Ratio		0.035		-	-	0.005	-	_	0.008			
HCM Control Delay (s)		9.4	7.4	0	-	7.4	0	-	9.7			
HCM Lane LOS		Α	Α	A	-	Α	A	-	Α			
HCM 95th %tile Q(veh))	0.1	0	-	-	0	-	-	0			

latana a stiav												
Intersection	4.7											
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	2,# -	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 I	Major1		ı	Major2		- 1	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		3.318	3.518		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	ı			0.7			7.5 A			Α		
TOW LOS							Α			Α.		
N. 41		IDI 4	ED!	EDT	EDD	14/51	MOT	MADE	ODL 4			
Minor Lane/Major Mvm	nt N	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR:				
Capacity (veh/h)		840	1534	-	-	1560	-	-	780			
HCM Lane V/C Ratio			0.005	-	-	0.006	-	-	0.055			
HCM Control Delay (s)		9.5	7.4	0	-	7.3	0	-	9.9			
HCM Lane LOS		Α	Α	Α	-	Α	Α	-	Α			
HCM 95th %tile Q(veh))	0.2	0	-	-	0	-	-	0.2			

Intersection												
Int Delay, s/veh	3.1											
		EDT	EDD	MDI	MOT	WDD	NDI	NDT	NDD	CDI	CDT	CDD
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	40	2	10	4	2	7	4	10	1	4	
Traffic Vol, veh/h	1	43	2	13	52	2	7	11	13	1	3	5
Future Vol, veh/h	1	43	0	13	52	2	7	11	13	1 2	3	5 1
Conflicting Peds, #/hr Sign Control	•	0	Free	0 Free	0	1 Fron	•	0				
RT Channelized	Free	Free	None	riee -	Free	Free None	Stop	Stop	Stop None	Stop	Stop	Stop None
Storage Length	-	-	None -	-	-	None	-	-	None -	-	-	None
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
WWW. Tiow	•	10	_	10	02	_	•		10	•		
Major/Minor	Major1		ı	Major2			Minor1			Minor2		
	Major1 55	0	0	<u>viajui 2</u> 45	0	0	130	127	46	140	127	55
Conflicting Flow All Stage 1	20	0	U	45	-	U	46	46	40	80	80	55
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	4.12	_		4.12	-		6.12	5.52	0.22	6.12	5.52	0.22
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			Α		
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SRI n1			
	it I			LDI								
Capacity (veh/h) HCM Lane V/C Ratio		868	1549	-		1563	-	-	885			
HCM Control Delay (s)		0.036 9.3	0.001 7.3	0	-	0.008 7.3	- 0	-	0.01 9.1			
HCM Lane LOS		9.3 A		A	-	7.3 A	0 A	-	9.1 A			
HCM 95th %tile Q(veh)	0.1	A 0	- A	-	0	- A	-	0			
HOW FULL FORME COLVERY		0.1	U			U	_	_	U			

Intersection						
Int Delay, s/veh	3.3					
		EDD	\\/DI	WDT	NIDI	NDD
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	}	_	40	4	¥	٥,
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
Mymt Flow	43	0	18	42	3	36
IVIVIII I IOVV	73	U	10	72	3	30
Major/Minor N	1ajor1	1	Major2	- 1	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	
Pot Cap-1 Maneuver	-		1562	-	870	1023
		-	1302		976	1023
Stage 1	-	-	-	-		-
Stage 2	-	-	-	-	944	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1558	-	857	1020
Mov Cap-2 Maneuver	-	-	-	-	857	-
Stage 1	-	-	-	-	974	-
Stage 2	-	-	-	-	932	-
Annraach	ED		MD		NID	
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.2		8.7	
HCM LOS					Α	
Minor Lane/Major Mvmt	<u> </u>	NBLn1	EBT	EBR	WBL	WBT
	- 1					VVDI
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		Α	-	-	Α	Α
HCM 95th %tile Q(veh)		0.1	-	-	0	-

Intersection												
Int Delay, s/veh	3.5											
		EDT	EDD	MIDI	MOT	WDD	NDI	NDT	NDD	CDI	CDT	CDD
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٥٢	4	0	_	4		2	4	2	2	4	٥٢
Traffic Vol, veh/h	35	47	8	5	62	4	2	4	3	2	3	35
Future Vol, veh/h	35 2	47	8	5 1	62	4	2	4	3	2	3	35
Conflicting Peds, #/hr Sign Control		0		Free	0			0	0 Ctop			1 Cton
RT Channelized	Free	Free	Free None	riee -	Free	Free None	Stop	Stop	Stop None	Stop	Stop	Stop None
Storage Length	-	_	None	-	_	None	-	_	NONE -	_	-	NULLE
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 I	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	68	0	0	<u>viajui 2</u> 56	0	0	216	200	52	201	202	67
Stage 1	00	U	U	50	-	U	122	122	52	76	76	- 07
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	7.12		_	7.12	_	_	6.12	5.52	- 0.22	6.12	5.52	0.22
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							Α			Α		
Minor Lane/Major Mvm	nt N	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR :	SBLn1			
Capacity (veh/h)		766				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	Α	A	-	A	A	-	Á			
HCM 95th %tile Q(veh))	0	0.1	-	-	0	-	-	0.1			

Intersection		
Intersection Delay, s/veh	9.3	
Intersection LOS	А	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			₩			₩	
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	А			Α			Α			Α		

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	А	Α	Α	А	
HCM 95th-tile Q	0.7	0.3	0.5	1.6	

Number of Lanes

intersection													
Intersection Delay, s/ve	e h 20.1												
Intersection LOS	С												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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	

A	ΓD	WD	ND	CD	
Approach	EB	WB	NB	SB	
Opposing Approach	WB	EB	SB	NB	
Opposing Lanes	1	1	1	1	
Conflicting Approach L	eft SB	NB	EB	WB	
Conflicting Lanes Left	1	1	1	1	
Conflicting Approach R		SB	WB	EB	
Conflicting Lanes Righ	t 1	1	1	1	
HCM Control Delay	12.6	11.8	13.4	28.1	
HCM LOS	В	В	В	D	

Lane	NBLn1	EBLn1\	NBLn1	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	В	В	В	D
HCM 95th-tile Q	2.2	1.3	1.1	8.5

Background+P AM.syn Synchro 10 Report 01/28/2019 Hexagon

Intersection												
Int Delay, s/veh	5.4											
		EDT	EDD	WDI	WDT	WDD	NDI	NDT	NDD	CDI	CDT	CDD
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	2	4	0/	1	4	0	100	4		0	4	0
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	•	0	0	O Cton	0	O Cton	O Cton	O Ctop	O Cton
Sign Control RT Channelized	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length Veh in Median Storage	- #	0	-	-	0	-	-	0	-	-	0	-
Grade, %	2,# -	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
IVIVIIII I IOVV		- 11	00	1	- 11	U	130	J	7	U	U	U
	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	-	-	-	- 0.010	-	-	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, %	1400	-	-	1404	-	-	017	01/	1011	000	772	1070
Mov Cap 2 Manager	1608	-	-	1494	-	-	917	816	1011	908	773	1070
Mov Cap-2 Maneuver	-	-	-	-	-	-	917 951	816	-	908	773	-
Stage 1	-	-	-	-	-	-	1006	844 884	-	1006 941	884 809	-
Stage 2	-	-	-	-	-	-	1000	004	-	941	009	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.6			9.6			0		
HCM LOS							Α			Α		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR :	SBI n1			
Capacity (veh/h)		917	1608			1494		TI DIC	-			
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		7.0 A	Α.2	A	_	Α.4	A	_	A			
HCM 95th %tile Q(veh))	0.5	0	-	_	0	-		-			
How four four Q(VCH)		0.0	U			U						

Intersection						
Int Delay, s/veh	8.0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥	LDIN	INDL	4	<u> </u>	7
Traffic Vol, veh/h	47	23	12	958	633	127
Future Vol, veh/h	47	23	12	958	633	127
			3			
Conflicting Peds, #/hr	O Cton	0		0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	0
Veh in Median Storage		-	-	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
	Minor2		Major1	N	/lajor2	
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		3.318	2 210		_	_
	114	478	850	-		-
Pot Cap-1 Maneuver			830	-		-
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	-	-	-	-	-
J -						
Approach	EB		NB		SB	
HCM Control Delay, s	18.4		0.1		0	
HCM LOS	С					
Minor Lanc/Major Mun	ot	NIDI	NDT	EDI n1	CDT	CDD
Minor Lane/Major Mvn	II	NBL		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		Α	Α	С	-	-
HCM 95th %tile Q(veh	1)	0	-	0.8	-	-
	•					

	√	•	<u>†</u>	~	<u> </u>	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	₩.	TI DIC	†	HOI	ODL	<u>↑</u>
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
			U	1.00	1.00	U
Ped-Bike Adj(A_pbT)	1.00	1.00	1 00	1.00	1.00	1.00
Parking Bus, Adj	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	1.70	0.0	0.0	5.2
	6.6	0.0	1.9	0.0	0.0	5.2
Cycle Q Clear(g_c), s			1.7			ე.∠
Prop In Lane	0.97	0.03	1.470	0.00	0.00	1470
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	В	3.0	Α	0.0	3.0	Α
Approach Vol, veh/h	457		377			866
• •						
Approach LOS	10.2		5.3			6.6
Approach LOS	В		Α			Α
Timer	1	2	3	4	5	6
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+l1), s		3.9		8.6		7.2
Green Ext Time (p_c), s		2.3		0.0		4.3
u — ,		2.3		U. I		4.3
Intersection Summary						
HCM 2010 Ctrl Delay			7.3			
HCM 2010 LOS			Α			

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Movement EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	41	T.	VVDL	413	WDI	NDL	4	T T	JDL	4	7
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	U	0.91	0.99	U	0.91	1.00	U	0.97	1.00	U	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	1700	258	69	149	215	17	65	350	16
Adj No. of Lanes 0	2	1	0	2	0	0	1	17	0	1	10
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
·	196	490	182		162	364	0	1529	415	0	16
				0							1532
Grp Sat Flow(s), veh/h/ln1674	1610	1435	1711	0	1507	1825	0	1529	1848	0	
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	F00	1.00	0.09	0	0.43	0.41	^	1.00	0.16	0	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	1.00	543	773	0	648	861	1.00	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/lr4.1	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	С	В	С		С	D		С	D		С
Approach Vol, veh/h	892			344			381			431	
Approach Delay, s/veh	17.9			22.8			36.8			36.1	
Approach LOS	В			С			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 (q_c+l1), s			19.8		9.3		22.0				
Green Ext Time (p_c), s	3.8		2.3		2.2		2.8				
ų – 7·	5.5						0				
Intersection Summary		2/ 1									
HCM 2010 Ctrl Delay		26.1									
HCM 2010 LOS		С									

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Movement	EBL	EBT	WBT	WBR	SBL	SBR							
Lane Configurations	ሻ	†	†	7	ሻ	7							
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/li	n1774	1863	1863	1533	1774	1583							
Q Serve(q_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/vel	h 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	n 0.0	0.0	0.0	0.0	0.0	0.0							
%ile BackOfQ(50%),vel	h/ 1 1n6.1	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	В	С	В	E	В							
Approach Vol, veh/h		785	768		720								
Approach Delay, s/veh		36.9	18.9		43.0								
Approach LOS		D	В		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),		* 4.2		* 4.2	4.0	* 4.2							
Max Green Setting (Gm		* 85		* 57	51.0	* 30							
Max Q Clear Time (g_c		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			С										
Notes													
* HCM 2010 computation	nal on	nine ro	nuires e	anual ele	aranco	timas f	for the nha	SAS Cro	nssina t	he har	rier		
TIGINI 2010 COMPUTATIO	mai ell	girie 180	Juil C3 C	yuai Ult	arantt	unic2 l	or the pile	202 CI	Josii Iy l	ne bal	IICI.		

Background+P AM.syn Hexagon

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Movement E	BL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4	7		414		ሻ	∱ 1≽	
	49	58	0	72	22	268	0	874	62	224	699	93
,	49	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
	.00		1.00	1.00		0.98	1.00		0.98	1.00		1.00
	.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
,	000	1863	1900	1900	1863	1863	1900	1863	1900	1863	1863	1900
	49	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
	242	82	0	332	91	839	0	1002	71	527	2034	270
	.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 6	94	346	0	1066	386	1556	0	3439	237	1774	3141	418
Grp Volume(v), veh/h 2	207	0	0	94	0	268	0	462	474	224	394	398
Grp Sat Flow(s),veh/h/ln10		0	0	1451	0	1556	0	1770	1814	1774	1770	1789
•	1.8	0.0	0.0	0.0	0.0	0.0	0.0	19.8	19.8	8.1	8.1	8.1
	5.9	0.0	0.0	4.1	0.0	0.0	0.0	19.8	19.8	8.1	8.1	8.1
, io _ ,	.72		0.00	0.77		1.00	0.00		0.13	1.00		0.23
	324	0	0	424	0	839	0	530	543	527	1146	1159
1 1 1	.64	0.00	0.00	0.22	0.00	0.32	0.00	0.87	0.87	0.43	0.34	0.34
	149	0	0	569	0	997	0	575	590	527	1146	1159
	.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	.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	0.4	0.0	0.0	24.8	0.0	10.4	0.0	26.6	26.6	22.6	6.4	6.4
3	1.6	0.0	0.0	0.2	0.0	0.2	0.0	17.7	17.3	0.2	0.7	0.7
	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	2.0	0.0	0.0	25.0	0.0	10.6	0.0	44.2	43.9	22.8	7.1	7.1
LnGrp LOS	С			С		В		D	D	С	Α	Α
Approach Vol, veh/h		207			362			936			1016	
Approach Delay, s/veh		32.0			14.3			44.1			10.6	
Approach LOS		С			В			D			В	
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)) <	43.7		27.1	14.1	* 26		27.1				
Max Q Clear Time (g_c+l1		10.1		17.9	10.1	21.8		6.1				
Green Ext Time (p_c), s	11 3	5.8		0.8	0.1	2.2		1.1				
Intersection Summary												
HCM 2010 Ctrl Delay			25.3									
HCM 2010 LOS			23.3 C									
Notes												
* HCM 2010 computationa	ıl enç	gine rec	quires e	qual cle	earance	e times f	or the p	hases	crossin	g the ba	arrier.	

Background+P AM.syn Hexagon

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 0 Ped-Bike Adj(A_pbT) 1.00		•	→	←	•	<u> </u>	4			
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 0 0 Ped-Bike Adj(A_pbT) 1.00 0.00 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 1900 1863 1863 Adj Ilow 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, 8 2 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/h 3442 5253 4035 1129 1774 2787 Grp Volume(v), veh/h 566 1699 550 267 524 776 Grp Sat Flow(s), veh/h/h17171 102 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 Lane Grp Cap(c), veh/h 680 2746 978 463 766 1754 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 Upstream Filter(I) 1.00 1.00 1.00 1.00 1.00 Upstream Filter(I) 1.00 1.00 1.00 1.00 1.00 Upstream Filter(I) 1.00 1.00 1.00 1.00 1.00 Uniform Delay (d), siveh 28.5 11.8 22.4 22.5 22.1 10.4 Incr Delay (d2), siveh 8.36 2746 978 463 766 1754 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 Uniform Delay (d3), siveh 8.36 12.8 24.7 27.7 29.0 10.7 LnGrp Delay (d2), siveh 8.36 12.8 24.7 27.7 29.0 10.7 LnGrp Delay (d2), siveh 8.36 12.8 24.7 27.7 29.0 10.7 LnGrp Delay (d2), siveh 8.36 12.8 24.7 27.7 29.0 10.7 LnGrp Delay, (d2), siveh 8.3 25.7 18.1 Approach LOS B C B C C C B Approach Vol, veh/h 2265 817 1300 Approach Vol, veh/h 2265 817 1300 Approach Oley, siveh 8.8 12.5 12.5 19.1 22.1 Green Ext Time (p_c), s 0.9 2.4 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	Movement	EBL	EBT	WBT	WBR	SBL	SBR			J
Traffic Volume (veh/h) 566 1699 629 188 524 776 Future Volume (veh/h) 566 1699 629 188 524 776 Number										
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 0 0 Ped-Bike Adj(A_pbT) 1.00 0.96 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 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, 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 666 1699 550 267 524 776 Grp Sat Flow(s), veh/h/In1721 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 1.00 Lane Grp Cap(c), veh/h 836 2746 978 463 624 1531 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 Upstream Filter(l) 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Upstream Filter(l) 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Upstream Filter(l) 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0					188					
Number	` '									
Ped-Bike Adj(A_pbT) 1.00	Number									
Ped-Bike Adj(A_pbT) 1.00										
Parking Bus, Adj 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 1863 1863 1863										
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 Percent Heavy Veh, % 2 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/ln1721 1695 1695 1605 1774 1393 0 C Serve(g_s), s 11.7 17.1 10.2 10.5 20.1 12.9 Prop In Lane 1.00 0.70 1.00 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 Upstream Filter(I) 1.00 1.00 1.00 1.00 1.00 Upstream Filter(I) 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 0.0 0.0 0.0 0.0 0.0 %ile BackOfQ(50%), veh/ln6.1 8.1 5.0 5.3 11.0 4.9 LnGr Delay(d3), s/veh 0.0 0.0 0.0 0.0 0.0 %ile BackOfQ(50%), veh/ln6.1 8.1 5.0 5.3 11.0 4.9 LnGr Delay(d3), 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), \$8.6 25.4 44.0 30.1 Change Period (Y+Rc), \$8.6 25.4 44.0 30.1 Green Ext Time (p_c), \$ 0.9 2.4 12.7 3.9 Intersection Summary HCM 2010 Ctrl Delay 19.6			1.00	1.00						
Adj Flow Rate, veh/h Adj No. of Lanes 2 3 3 0 1 2 Peak Hour Factor 1.00 1.00 Percent Heavy Veh, % 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2										
Adj No. of Lanes										
Peak Hour Factor 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 2 2 2 2 2 2										
Percent Heavy Veh, % 2 2 2 2 2 2 2 2 2 2 2 2 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/ln1721 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 Upstream Filter(I) 1.00 1.00 1.00 1.00 1.00 Upstream Filter(I) 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/lr6.1 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 LOS B C C C C B Assigned Phs 1 2 6 8 Phs Duration (G+Y+Rc), 8.6 25.4 44.0 30.1 Change Period (Y+Rc), 8.6 25.4 44.0 30.1 Change Period (Y+Rc), 8.6 25.4 44.0 30.1 Green Ext Time (p_c, s 0.9 2.4 12.7 3.9) Intersection Summary HCM 2010 Ctrl Delay 19.6										
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/ln1721 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	3									
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Grp Volume(v), veh/h 566 1699 550 267 524 776 Grp Sat Flow(s), veh/h/ln1721 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(l) 1.00 1.00 1.00 1.00 1.00 Upiform 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 %ile BackOfQ(50%), veh/lr6.1 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), \$8.6 25.4 44.0 30.1 Change Period (Y+Rc), s 4.0 4.0 4.0 Max Green Setting (Gmat), \$8.1 12.5 19.1 22.1 Green Ext Time (p_c, s 0.9 2.4 12.6										
Grp Sat Flow(s),veh/h/ln1721 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(l) 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 %ile BackOfQ(50%),veh/ln6.1 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 B Approach Vol, veh/h 2265 817 1300 Approach Delay, s/veh 18.3 25.7 18.1 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), \$8.6 25.4 44.0 30.1 Change Period (Y+Rc), s 4.0 4.0 4.0 Max Green Setting (Gmax), 8 18.0 40.0 32.0 Max Q Clear Time (g_c+IT), \$1.25 19.1 22.1 Green Ext Time (p_c), s 0.9 2.4 19.6										
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 %ile BackOfQ(50%),veh/lr6.1 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 LOS B C B Timer 1 2 3 4 5 6 7 8 Assigned Phs 1 2 6 8 Phs Duration (G+Y+Rc), \$8.6 25.4 44.0 30.1 Change Period (Y+Rc), \$ 4.0 4.0 4.0 Max Green Setting (Gmat%),8 18.0 40.0 32.0 Max Q Clear Time (g_c+ITI),7 12.5 12.1 Green Ext Time (p_c), s 0.9 2.4 12.6 Intersection Summary HCM 2010 Ctrl Delay 19.6										
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 Upstream Filter(I) 1.00 1.00 1.00 1.00 1.00 Upstream Filter(I) 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 %ile BackOfQ(50%),veh/lr6.1 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), \$8.6 25.4 44.0 30.1 Change Period (Y+Rc), \$ 4.0 4.0 4.0 Max Green Setting (Gmatis), 8 18.0 40.0 32.0 Max Q Clear Time (g_c+III), 75 12.5 19.1 Intersection Summary HCM 2010 Ctrl Delay 19.6										
Prop In Lane 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 Upstream Filter(I) 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 %ile BackOfQ(50%),veh/lr6.1 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), \$8.6 25.4 44.0 30.1 Change Period (Y+Rc), \$ 4.0 4.0 4.0 Max Green Setting (Gmat), 8 18.0 40.0 32.0 Max Q Clear Time (g_c+III), 8 12.5 19.1 22.1 Green Ext Time (p_c), \$ 0.9 2.4 19.6	, ,		17.1	10.2						
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 0.0 %ile BackOfQ(50%),veh/lr6.1 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 B Approach Vol, veh/h 2265 817 1300 Approach LOS B C B Timer 1 2 3 4 5 6 7			07.11	070						
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 Upstream Filter(I) 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 %ile BackOfQ(50%),veh/lr6.1 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 Phs Duration (G+Y+Rc), \$8.6 25.4 44.0 30.1 Change Period (Y+Rc), s 4.0 4.0 4.0 Max Green Setting (Gmat), \$8.6 18.0 40.0 32.0 Max Q Clear Time (g_c+ T), \$8 12.5 19.1 22.1 Green Ext Time (p_c), s 0.9 2.4 19.6										
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 0.0 0.0 0.0 0.	, ,									
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/lr6.1 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), \$8.6 25.4 44.0 30.1 Change Period (Y+Rc), \$ 4.0 4.0 4.0 Max Green Setting (Gmax), 8 18.0 40.0 32.0 Max Q Clear Time (g_c+ITI), \$ 12.5 19.1 22.1 Green Ext Time (p_c), \$ 0.9 2.4 19.6										
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/lr6.1 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), \$8.6 25.4 44.0 30.1 Change Period (Y+Rc), \$ 4.0 4.0 4.0 Max Green Setting (Gmat), \$ 18.0 40.0 32.0 Max Q Clear Time (g_c+III), \$ 12.5 19.1 22.1 Green Ext Time (p_c), \$ 0.9 2.4 12.7 3.9 Intersection Summary HCM 2010 Ctrl Delay 19.6										
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 %ile BackOfQ(50%), veh/lr6.1 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), 18.6 25.4 44.0 30.1 Change Period (Y+Rc), s 4.0 4.0 4.0 Max Green Setting (Gmat), 8 18.0 40.0 32.0 Max Q Clear Time (g_c+III), 75 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										
Initial Q Delay(d3),s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 %ile BackOfQ(50%),veh/lr6.1 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), \$8.6 25.4 44.0 30.1 Change Period (Y+Rc), \$ 4.0 4.0 4.0 Max Green Setting (Gmat), \$ 12.5 19.1 22.1 Green Ext Time (p_c), \$ 0.9 2.4 12.7 3.9 Intersection Summary HCM 2010 Ctrl Delay 19.6										
%ile BackOfQ(50%),veh/lr6.1 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), \$8.6 25.4 44.0 30.1 Change Period (Y+Rc), \$ 4.0 4.0 4.0 Max Green Setting (Gmat), \$ 18.0 40.0 32.0 Max Q Clear Time (g_c+III), \$ 12.5 19.1 22.1 Green Ext Time (p_c), \$ 0.9 2.4 12.7 3.9 Intersection Summary HCM 2010 Ctrl Delay 19.6	Incr Delay (d2), s/veh		1.1							
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), \$8.6 25.4 44.0 30.1 Change Period (Y+Rc), \$4.0 4.0 4.0 4.0 Max Green Setting (Gmat), \$8.6 18.0 40.0 32.0 Max Q Clear Time (g_c+III), \$12.5 19.1 22.1 Green Ext Time (p_c), \$0.9 2.4 12.7 3.9 Intersection Summary HCM 2010 Ctrl Delay 19.6										
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), \$8.6 25.4 44.0 30.1 Change Period (Y+Rc), \$4.0 4.0 4.0 4.0 Max Green Setting (Gmat), \$4.0 4.0 4.0 4.0 Max Green Setting (Gmat), \$5.0 18.0 40.0 32.0 Max Q Clear Time (g_c+III), \$5.0 12.5 19.1 22.1 Green Ext Time (p_c), \$0.9 2.4 12.7 3.9 Intersection Summary HCM 2010 Ctrl Delay 19.6	%ile BackOfQ(50%),ve	h/ln6.1	8.1	5.0	5.3	11.0	4.9			
Approach Vol, veh/h Approach Delay, s/veh Approach LOS B C B Timer 1 2 3 4 5 6 8 Assigned Phs 1 2 6 8 Phs Duration (G+Y+Rc), \$8.6 25.4 Change Period (Y+Rc), \$ 4.0 Max Green Setting (Gmat), \$18.0 Max Q Clear Time (g_c+III), \$12.5 Green Ext Time (p_c), \$12.5 Intersection Summary HCM 2010 Ctrl Delay 18.0 18.0 18.0 18.0 19.6	LnGrp Delay(d),s/veh	34.6	12.8	24.7	27.7	29.0	10.7			
Approach Delay, s/veh Approach LOS B C B Timer 1 2 3 4 5 6 8 Assigned Phs 1 2 6 8 Phs Duration (G+Y+Rc), \$8.6 25.4 Change Period (Y+Rc), \$ 4.0 Max Green Setting (Gmals), \$ 18.0 Max Q Clear Time (g_c+III), \$ 12.5 Green Ext Time (p_c), \$ 0.9 2.4 Intersection Summary HCM 2010 Ctrl Delay 18.1	LnGrp LOS	С	В	С	С	С	В			
Approach Delay, s/veh Approach LOS B C B Timer 1 2 3 4 5 6 8 Assigned Phs 1 2 6 8 Phs Duration (G+Y+Rc), \$8.6 25.4 Change Period (Y+Rc), \$ 4.0 Max Green Setting (Gmals), \$ 18.0 Max Q Clear Time (g_c+III), \$ 12.5 Green Ext Time (p_c), \$ 0.9 2.4 Intersection Summary HCM 2010 Ctrl Delay 18.1	Approach Vol, veh/h		2265	817		1300				
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), \$8.6 25.4 44.0 30.1 Change Period (Y+Rc), \$ 4.0 4.0 4.0 Max Green Setting (Gmax), \$ 18.0 40.0 32.0 Max Q Clear Time (g_c+III), \$ 12.5 19.1 22.1 Green Ext Time (p_c), \$ 0.9 2.4 12.7 3.9 Intersection Summary HCM 2010 Ctrl Delay 19.6	Approach Delay, s/veh									
Timer 1 2 3 4 5 6 7 8 Assigned Phs 1 2 6 8 Phs Duration (G+Y+Rc), \\$8.6 25.4 44.0 30.1 Change Period (Y+Rc), \\$ 4.0 4.0 4.0 Max Green Setting (Gmax), \\$ 18.0 40.0 32.0 Max Q Clear Time (g_c+\text{iii}), \\$ 12.5 19.1 22.1 Green Ext Time (p_c), \\$ 0.9 2.4 12.7 3.9 Intersection Summary HCM 2010 Ctrl Delay 19.6										
Assigned Phs 1 2 6 8 Phs Duration (G+Y+Rc), \$8.6 25.4 44.0 30.1 Change Period (Y+Rc), \$ 4.0 4.0 4.0 Max Green Setting (Gmat), \$ 18.0 40.0 32.0 Max Q Clear Time (g_c+III), \$ 12.5 19.1 22.1 Green Ext Time (p_c), \$ 0.9 2.4 12.7 3.9 Intersection Summary HCM 2010 Ctrl Delay 19.6		4					,	-	0	
Phs Duration (G+Y+Rc), \$8.6 25.4 44.0 30.1 Change Period (Y+Rc), \$ 4.0 4.0 4.0 4.0 Max Green Setting (Gmat), 6 18.0 40.0 32.0 Max Q Clear Time (g_c+ITI), 5 12.5 19.1 22.1 Green Ext Time (p_c), \$ 0.9 2.4 12.7 3.9 Intersection Summary HCM 2010 Ctrl Delay 19.6		1		3	4	5		1		
Change Period (Y+Rc), s 4.0 4.0 4.0 Max Green Setting (Gmat/8,6) 18.0 40.0 32.0 Max Q Clear Time (g_c+III), ≥ 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		1								
Max Green Setting (Gmax), 8 18.0 40.0 32.0 Max Q Clear Time (g_c+III), 7s 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										
Max Q Clear Time (g_c+fff), \$\(\), \$ 12.5 19.1 22.1 Green Ext Time (p_c), \$\(\), \$ 0.9 2.4 12.7 3.9 Intersection Summary HCM 2010 Ctrl Delay 19.6	, ,									
Green Ext Time (p_c), s 0.9 2.4 12.7 3.9 Intersection Summary HCM 2010 Ctrl Delay 19.6										
Intersection Summary HCM 2010 Ctrl Delay 19.6										
HCM 2010 Ctrl Delay 19.6	Green Ext Time (p_c), s	5 0.9	2.4				12.7		3.9	
	Intersection Summary									
HCM 2010 LOS B	HCM 2010 Ctrl Delay		-	19.6		-			-	
	HCM 2010 LOS			В						

		→	•	•	←	•	•	†	~	<u> </u>		4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	4	7	*	ĵ.		*	^	7	*	^	7
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	<u> </u>	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
	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
	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/lr		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(q_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		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	165.6	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	n/ 1 1/1 .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	Ε		Ε	Ε		Ε	В	Α	Α	F	Ε	С
Approach Vol, veh/h		667			71			1215			1311	
Approach Delay, s/veh		70.1			74.2			2.0			49.4	
Approach LOS		Е			E			Α			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc)	, s7.9	108.8		13.5	61.9	54.9		29.7				
Change Period (Y+Rc),		4.6		* 4.2	4.6	* 4.6		4.0				
Max Green Setting (Gm		70.2		* 27	21.8	* 56		38.0				
Max Q Clear Time (g_c-		2.0		5.7	5.7	38.1		23.9				
Green Ext Time (p_c), s	•	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 b	oalanci	ing amo	ng the	lanes fo	or turnir	ng move	ment.					
		- T	- T			-						

Background+P AM.syn Hexagon

Convergence, Y/N

HCM Lane V/C Ratio

HCM Control Delay

HCM Lane LOS

HCM 95th-tile Q

Service Time

Cap

Yes

361

23.6

C

3

0.529 0.538

Yes

398

22.1

C

3.1

7.769 6.842 8.104 7.581

Yes

346

14.2

В

0.3

0.098 0.741

Yes

367

36.3

Ε

5.8

Yes

394

13.7

В

0.6

0.173 0.566

Yes

366

24.8

C

3.4

6.85 7.614 7.021 7.814

Yes

390

59.1

9.8

0.918 0.704

Yes

361

34.1

D

5.2

Intersection													
Intersection Delay, s/ve	h34.7												
Intersection LOS	D												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	ሻ	†	7	*	1>			4	7		4		
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	
Annroach	EB			WB			NB			SB			
Approach							SB						
Opposing Approach	WB 2			EB 3			3B			NB 2			
Opposing Lanes				NB			EB			WB			
Conflicting Approach Le Conflicting Lanes Left	1			2			3			WB			
U				SB			WB			EB			
Conflicting Approach Ri Conflicting Lanes Right				3D 1			2			3			
HCM Control Delay	30.2			46.5			22.8			34.1			
HCM LOS	30.2 D			40.5			22.0 C			34.1			
HOW LOS	D						C			D			
Lane	N		NBLn2 I										
Vol Left, %		38%		100%	0%	0%		0%	15%				
Vol Thru, %		62%	0%	0%	100%	0%	0%	91%	64%				
Vol Right, %		0%		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		0.098	0.743	0.172	0.567	0.922	0.71				
Departure Headway (Ho	d) 1	0.015	9.089	10.352	9.83	9.099	9.864	9.2711	10.062				

	•	→	•	•	←	•	•	†	~	/		4	
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		414			414		ሻ	ተተኈ		ሻ	^	7	
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	
	31	3254		949	794	900	1774	4601	547	1774	3539	1583	
Sat Flow, veh/h			0										
Grp Volume(v), veh/h	79	75	0	285	0	304	57	1150	597	262	1300	0	
Grp Sat Flow(s), veh/h/l		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		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/ve	h 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/vel	h 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%),ve		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		Е	F	F	F	Ε	С		
Approach Vol, veh/h		154			589			1804			1562		
Approach Delay, s/veh		54.5			77.2			226.2			33.8		
Approach LOS		D T.5			F. E.			F			C		
Timer	1	2	3	4	5	6	7	8					
	1		J				1						
Assigned Phs	\ 40.7	2		4	5	6		8					
Phs Duration (G+Y+Rc		92.0		56.7	11.7	123.0		56.7					
Change Period (Y+Rc),		4.0		4.0	4.0	4.0		4.0					
Max Green Setting (Gm		88.0		61.0		119.0		61.0					
Max Q Clear Time (g_c		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													
Intersection Summary HCM 2010 Ctrl Delay HCM 2010 LOS			125.2 F										

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	ħβ		ሻሻ	†	7	*	^	7	ሻሻ	^	7
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/lr		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		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/vel	h 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
%ile BackOfQ(50%),vel		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	Ε	F	Е	F	D	F	С	В	F	С	Α
Approach Vol, veh/h		531			862			2098			1587	
Approach Delay, s/veh		84.9			75.3			30.1			32.1	
Approach LOS		F			Е			С			С	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc)	1, 1, 1, 1	92.0	25.8	25.3	11.5	97.6	19.7	31.4				
Change Period (Y+Rc),		4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gm		88.0	29.0	26.0	13.0	91.0	21.0	34.0				
Max Q Clear Time (g_c		59.1	20.8	19.0	7.9	40.0	15.5	26.0				
Green Ext Time (p_c), s		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	s to righ	nt turn ty	ype.									

Percent Heavy Veh, % 2 2 2 0 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/ln1721 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 26.8 37.2 27.7 0.0 0.0 0.0 Sile BackOfQ(50%), veh/ln7.3 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 BApproach 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 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		•	•	†	~	<u> </u>				
Lane Configurations Traffic Volume (veh/h) 720 737 2097 0 0 1052 Future Volume (veh/h) 720 737 2097 0 0 1052 Future Volume (veh/h) 720 737 2097 0 0 1052 Future Volume (veh/h) 720 737 2097 0 0 1052 Future Volume (veh/h) 720 737 2097 0 0 1052 Initial O (Ob), veh 0 0 0 0 0 0 0 0 Ped-Bike Adj(A_pbT) 1.00 1.00 1.00 1.00 1.00 Parking Bus, Adj 1.00 1.00 1.00 1.00 1.00 1.00 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 1.00 Percent Heavy Veh, % 2 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/h1721 1393 1770 0 0 1770 Q Serve(g_s), s 14.8 20.2 46.8 0.0 0.0 13.6 Cycle O Clear(g_c), s 14.8 20.2 46.8 0.0 0.0 13.6 Prop In Lane 1.00 1.00 1.00 0.00 Lane Grp Cap(c), veh/h 1029 833 2114 0 0 2114 HCM Platoon Ratio 1.00 1.00 0.00 0.00 Lane Grp Cap(c), 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(l) 1.00 1.00 0.48 0.00 0.00 1.00 Upstream Filter(l) 1.00 1.00 0.00 0.00 Upstream Filter(l) 1.00 1.00 1.00 0.00 0.00 Uniforn 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 0.0 Mile Backof(56%), veh/hin 7.3 8.9 25.9 0.0 0.0 6.8 LnGrp Delay(d3), s/veh 26.8 37.2 27.7 0.0 0.0 10.1 Uniforn Delay (d3), s/veh 24.9 26.7 15.9 0.0 0.0 6.8 LnGrp 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 Phs Duration (G+Y+Rc), s 51.9 51.9 28.1 Change Period (Y+Rc), s 4.1 4.1 4.2 Approach LOS C C B Timer 1 2 3 4 5 6 7 8 Assigned Phs Phs Duration (Ge+11), s 48.8 15.6 22.2 Green Ext Time (g_c-t), s 0.0 0.0 9.2 1.7 Intersection Summary HCM 2010 Ctrl Delay	Movement V	NBL	WBR	NBT	NBR	SBL	SBT			J
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 0 0 Ped-Bike Adj(A, pbT) 1.00 1.00 1.00 1.00 1.00 1.00 Parking Bus, Adj 1.00 1.00 1.00 1.00 1.00 1.00 Adj Sat Flow, veh/h/ln 1863 1863 1863 0 0 1863 Adj Flow Rate, veh/h 720 737 2097 0 0 1052 Adj Root Lanes 2 2 2 2 0 0 2 Peak Hour Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Percent Heavy Veh, 8 2 2 2 0 0 2 Peak Hour Factor 0.30 0.30 0.60 0.00 0.00 0.60 Sat Flow, veh/h 720 737 2097 0 0 1052 Grp Sat Flow(s), veh/h/ln1721 1393 1770 0 0 1052 Grp Sat Flow(s), veh/h/ln1721 1393 1770 0 0 1770 Q Serve(g_s), 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 1.36 Prop In Lane 1.00 1.00 0.00 Lane Grp Cap(c), 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 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 1.9 10.5 11.8 0.0 0.0 0.0 Sile BackOf0(50%), veh/h ² 32.1 27.7 0.0 0.0 10.1 Charge Delay (d2), s/veh 42.9 26.7 15.9 0.0 0.0 0.0 Sile BackOf0(50%), veh/h ² 32.1 27.7 10.1 Approach LOS C D C B Timer 1 2 3 4 5 6 7 8 Assigned Phs 2 6 8 Phs Duration (G+Y+Rc), s 51.9 Change Period (Y+Rc), s 4.1 4.1 4.2 Max Green Setting (Gmax), s 46.7 Max G Clear Time (g_c+I1), s 48.8 Green Ext Time (p_c), s 0.0 9.2 1.7 Intersection Summary HCM 2010 Ctrl Delay 25.1										
Future Volume (veh/h) 720 737 2097 0 0 1052 Number 3 18 2 12 1 6 Initial Q (Ob), veh 0 0 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 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/n/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 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 1.00 1.00 1.00 Lane Grp Cap(c), veh/h 1029 833 2114 0 0 2114 WC Ratio(X) 0.70 0.88 0.99 0.00 0.00 Lane Grp Cap(c), veh/h 1076 871 2114 0 0 2114 WCR Atio(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 WCR Atio(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 WCR Atio(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 WCR Atio(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 WCR Atio(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 WCR Atio(X) 0.70 0.88 0.99 0.00 0.00 0.00 Upstream Filter(f) 1.00 1.00 0.48 0.00 0.00 1.00 Upstream Filter(f) 1.00 1.00 0.00 0.0 0.0 0.0 %ile BackOfO(50%),veh/li7.3 8.9 25.9 0.0 0.0 0.8 Initial Q Delay(d3),s/veh 24.9 26.7 15.9 0.0 0.0 0.0 8 Initial Q Delay(d3),s/veh 26.8 37.2 27.7 0.0 0.0 10.1 LnGrp Delay (d2),s/veh 32.1 27.7 10.1 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 6 8 Phs Duration (G+Y+Rc), s 51.9 51.9 28.1 Change Period (Y+Rc), s 51.9 51.9 28.1 Change Period (Y+Rc), s 61.9 51.9 51.9 28.1 Change Period (Y+Rc), s 61.9 51.9 51.9 28.					0	0				
Number	, ,									
Ped-Bike Adj(A_pbT) 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0			18		12	1	6			
Ped-Bike Adj(A_pbT) 1.00 </td <td>Initial Q (Qb), veh</td> <td></td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td></td> <td></td> <td></td> <td></td>	Initial Q (Qb), veh		0	0	0	0				
Parking Bus, Adj		1.00	1.00		1.00	1.00				
Adj Sat Flow, veh/h/ln 1863 1863 0 0 1863 Adj Flow Rate, veh/h 720 737 2097 0 0 1052 Adj No. of Lanes 2 2 2 2 0 0 2 Peak Hour Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Percent Heavy Veh, % 2 2 2 0 0 2 Cap, weh/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/ln1721 1393 1770 0 0 1770 0 267 148 20.2 46.8 0.0 0.0 13.6 297 0 0 13.6 297 0 0 0 0 0 0 0 0 0	, _ , _ ,	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Flow Rate, veh/h 720 737 2097 0 0 1052 Adj No. of Lanes 2 2 2 2 0 0 2 Peak Hour Factor 1.00 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/In1721 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 0 Cycle Q Clear(g_c), veh/h 1029 833 2114 0 0 2114		863	1863	1863	0	0	1863			
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 0.60 0.00 0.00 0.60 Sat Flow, veh/h 720 737 2097 0 0 1052 Grp Volume(v), veh/h 720 737 2097 0 0 1052 Grp Sat Flow(s),veh/h/In1721 1393 1770 0 0 1770 Q Serve(g_s), s 14.8 20.2 46.8 0.0 0.0 13.6 Cycle C 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 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 <td></td>										
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Change Period (Y+Rc), s 4.1 4.2 Max Green Setting (Gmax), s 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	Assigned Phs		2				6		8	
Max Green Setting (Gmax), s 46.7 25.0 Max Q Clear Time (g_c+l1), 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	Phs Duration (G+Y+Rc),	S	51.9				51.9		28.1	
Max Green Setting (Gmax), s 46.7 25.0 Max Q Clear Time (g_c+l1), 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	Change Period (Y+Rc), s	5	4.1				4.1		4.2	
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			46.7				46.7		25.0	
Green Ext Time (p_c), s 0.0 9.2 1.7 Intersection Summary HCM 2010 Ctrl Delay 25.1			48.8				15.6			
HCM 2010 Ctrl Delay 25.1	Green Ext Time (p_c), s									
J	Intersection Summary									
J				25.1						
	HCM 2010 LOS			С						

		•	•	†	↓	4
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	ሻሻ	T T	NUL	†	† †	ODIN
		451	Λ	1174	1562	0
· /	1299		0			0
, , ,	1299	451	0	1174	1562	0
Number	7	14	5	2	6	16
Initial Q (Qb), veh	0	0	0	0	0	0
,\ _i ,	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	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
	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	0	2	2	0
	1380	635	0	1757	1757	0
	0.40	0.40	0.00	0.50	0.99	0.00
				3725		
	3442	1583	0		3725	0
	1299	451	0	1174	1562	0
Grp Sat Flow(s), veh/h/ln		1583	0	1770	1770	0
13 — <i>7</i> :	29.1	19.1	0.0	20.0	2.1	0.0
, , ,	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
. ,	1415	651	0	1757	1757	0
	1.00	1.00	1.00	1.00	2.00	1.00
	1.00	1.00	0.00	1.00	0.79	0.00
Uniform Delay (d), s/veh		20.1	0.00	15.2	0.77	0.00
J \ /.	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
%ile BackOfQ(50%),veh		8.8	0.0	10.1	1.5	0.0
J ()	35.2	23.0	0.0	17.2	5.9	0.0
LnGrp LOS	D	С		В	Α	
	1750			1174	1562	
	32.1			17.2	5.9	
Approach LOS	C			В	Α	
	0					
Timer	1	2	3	4	5	6
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 (Gma		38.9		32.9		38.9
Max Q Clear Time (g_c+		22.0		31.1		4.1
Green Ext Time (p_c), s	,, 5	5.7		1.0		10.9
u — .		5.,		1.0		
Intersection Summary						
HCM 2010 Ctrl Delay			19.1			
HCM 2010 LOS			В			

Intersection				
Intersection Delay, s/ve Intersection LOS	h13.8			
Intersection LOS	В			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		414			414			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			2			2			
Conflicting Approach R	ightNB			SB			WB			EB			
Conflicting Lanes Right	1			1			2			2			
HCM Control Delay	12.8			14.6			14.3			13			
HCM LOS	В			В			В			В			

Lane	NBLn1	EBLn1	EBLn2V	VBLn1V	VBLn2	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	В	В	В	С	В	В	
HCM 95th-tile Q	2.1	1.5	1.5	2.6	1.8	1.5	

Note Note
Movement EBL EBR EBR WBL WBR NBL NBT NBR SBL SBR SBR
Traffic Vol, veh/h
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 Stop
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
Conflicting Peds, #/hr 31 0 16 16 0 31 0 0 25 25 0 0 Sign Control Free Stop None - - None - - None - - None - - 0 - - - 0 - - 0 - - 0 - - 0 - - - 0 - - - 0 - - - 0 <
Sign Control Free Free Free Free Free Free Free Free Free Stop Stop Stop Stop Stop Stop RT Channelized - None - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - -
RT Channelized - None - None - None - None Storage Length -
Storage Length - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - 0 - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Veh in Median Storage, # 0 - - 0 - 0 100
Grade, % - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 100
Peak Hour Factor 100
Heavy Vehicles, % 2 84 Major/Minor Minor1 Minor1 Minor2 Minor2 Minor1 Minor2 Minor2 Minor2 Minor3 449 449 49 49 49 49 49 49 49 449 449 449 449 449 449 449 449 449 449 449 449 449 449 449 <t< td=""></t<>
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 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 <td< td=""></td<>
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 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54<
Conflicting Flow All 466 0 0 808 0 0 1122 1403 437 986 1373 249 Stage 1 - - - - - 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 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 70 70 70 70 70
Conflicting Flow All 466 0 0 808 0 0 1122 1403 437 986 1373 249 Stage 1 - - - - - 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 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 </td
Conflicting Flow All 466 0 0 808 0 0 1122 1403 437 986 1373 249 Stage 1 - - - - - 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 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 - 6.54 5.54 </td
Stage 1 - - - - 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 <td< td=""></td<>
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 -
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 6.54 6.54 6.54
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 -
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 -
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 -
Pot Cap-1 Maneuver 1092 - - 813 - - 161 139 567 202 145 751 Stage 1 - - - - 291 347 - 559 571 - Stage 2 - - - - 782 552 - 496 346 -
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
TION LOO
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

Intersection						
Int Delay, s/veh	0					
		CDT	WDT	WIDD	CDI	CDD
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	•	4	4	•	¥	0
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	e, # -	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
Maiau/Minau	14-11		1-1-2		Alia a - O	
	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	_		_		-	_
Jiago Z						
Approach	EB		WB		SB	
HCM Control Delay, s	0		0		0	
11011100					Α	
HCM LOS						
HCM LOS						
	\t	EDI	EDT	MDT	MPD	CDI n1
Minor Lane/Major Mvm	nt	EBL	EBT	WBT	WBR S	SBLn1
Minor Lane/Major Mvm Capacity (veh/h)	nt	1614	-	-	-	-
Minor Lane/Major Mvm Capacity (veh/h) HCM Lane V/C Ratio		1614 -	-	WBT - -	-	-
Minor Lane/Major Mvm Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s)		1614 - 0	- - -	- -	- -	- - 0
Minor Lane/Major Mvm Capacity (veh/h) HCM Lane V/C Ratio		1614 -	-	-	-	-

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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	143	-	U	110	-	-	103	103	104	269	269	144
Stage 2	-	-	_		-	-	268	269	-	138	115	-
Critical Hdwy	4.12	-	<u>-</u>	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	4.12	-		4.12	-	-	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 2	-			_	-		6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	_	_	2.218	_	-	3.518		3.318	3.518	4.018	
Pot Cap-1 Maneuver	1440	_		1474	_	_	586	558	951	555	550	903
Stage 1	- 17-10	_	_	- 117-	_	_	903	810	751	737	687	703
Stage 2	_	_	_	_	_	-	738	687	_	865	800	-
Platoon blocked, %		_	_		_	_	, 50	007		000	500	
Mov Cap-1 Maneuver	1435	_	_	1473	_	-	560	530	949	494	523	899
Mov Cap-2 Maneuver	-	_	_	- 170	_	_	560	530	-	494	523	-
Stage 1	-	-	-	-	-	-	902	809	-	735	653	-
Stage 2	_	_	_	_	_	_	698	653	_	800	799	-
							3,3	300		300	.,,	
				WD			, LE			0.5		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2.4			9.6			12.2		
HCM LOS							Α			В		
Minor Lane/Major Mvm	nt N	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	-				
HCM Lane LOS		A	A	-	-	A	A	-	В			
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.1			
	•											

Intersection												
Int Delay, s/veh	4.8											
		EDT	EDD.	MDI	MOT	14/00	NDI	NDT	NDD	0.01	ODT	000
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	2,# -	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 N	Major1			Major2			Minor1		1	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	0.22	6.12	5.52	- 0,22
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	1400	_	_	-	_	_	913	817	-	747	694	- , , ,
Stage 2	_	_	_	_	_	_	715	694	_	901	811	_
Platoon blocked, %		_	_		_	_	7 10	0,1		701	011	
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	_
Jiago Z							011	000		312	500	
A				1410			, LID			0.0		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			3.2			10.5			11.6		
HCM LOS							В			В		
Minor Lane/Major Mvm	nt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		689	1484		_	1502	_					
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	-				
HCM Lane LOS		В	A	A	_	Α	A	_	В			
HCM 95th %tile Q(veh))	0.1	0	-	-	0.2	-	-	0.4			
		0.1				3.2			- U. 1			

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	2,# -	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		ı	Major2			Minor1			Minor2		
Conflicting Flow All	170	0	0	87	0	0	389	383	85	394	387	171
Stage 1	170	-	-	-	-	-	101	101	-	282	282	- 1/1
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	4.12		_	4.12	-	-	6.12	5.52	0.22	6.12	5.52	0.22
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	1407			1307	-	_	905	811	9/4	725	678	0/3
Stage 2	-	-	-	-	-	-	720	678	-	893	808	-
Platoon blocked, %					-	_	120	070	-	073	000	
Mov Cap-1 Maneuver	1406	-	-	1509	-	-	540	523	972	533	520	872
Mov Cap-1 Maneuver	1400	_	-	1507	-	-	540	523	912	533	520	0/2
Stage 1	-	-	-	-	-	-	899	805	-	719	650	
Ü	-	-	-	•	-	-	678	650	-	867	802	-
Stage 2	-	-	-	-	-	-	0/8	000	-	00/	ØU2	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.7			1.9			10.2			10.8		
HCM LOS							В			В		
Minor Lane/Major Mvm	nt I	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		720	1406	-	-	1509	-		635			
HCM Lane V/C Ratio		0.039		-		0.037	-	-	0.025			
HCM Control Delay (s)		10.2	7.6	0	-	7.5	0	_	10.8			
HCM Lane LOS		В	Α	A	-	Α	A	_	В			
HCM 95th %tile Q(veh))	0.1	0	-	-	0.1	-	-	0.1			

Intersection						
Int Delay, s/veh	3.8					
		EDD	MDL	MOT	NDI	NDD
	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	f)	_		4	¥	
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
_ 3	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
N.A ! /N.A!	.14		4-1-0		1'1	
	ajor1		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	745
Stage 1	_				914	_
Stage 2	_	_			885	-
Slaye 2	-	-	-	-	000	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.3		9.3	
HCM LOS					A	
		IDI. 1	EDT	EDD	14/51	MOT
Minor Lane/Major Mvmt	<u> </u>	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	-	-		0
HCM Lane LOS		Α	-	-	Α	Α
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		4			4			4			4	
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	2,# -	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 N	Major1			Major2		- 1	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	0.7			0.1			В			Α		
										, \		
		IDI 1				14/5:	11/5-	14/55	001 1			
Minor Lane/Major Mvm	nt N	VBLn1	EBL	EBT	EBR	WBL	WBT	WBR:				
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		В	Α	Α	-	A	Α	-	Α			
HCM 95th %tile Q(veh)		0.1	0.2	-	-	0	-	-	0.3			

Intersection		
Intersection Delay, s/veh	8.9	
Intersection LOS	А	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	А			Α			Α			А		

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	А	Α	Α	А	
HCM 95th-tile Q	0.6	0.3	0.4	1.3	

Intersection					
Intersection Delay, s/v	eh19.3				
Intersection Delay, s/ve Intersection LOS	С				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach R	ightNB			SB			WB			EB			
Conflicting Lanes Right	1			1			1			1			
HCM Control Delay	13			15.5			16			25.8			
HCM LOS	В			С			С			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	С	В	С	D
HCM 95th-tile Q	3	1.2	2.7	7

Intersection												
Int Delay, s/veh	4.5											
int Delay, Siven												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e, # -	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 1	Major1			Major2		N	Minor1			Minor2		
		0		<u>viajui 2</u> 84	0			78	50		112	10
Conflicting Flow All	18	0	0	δ4	0	0	80	52		79		18
Stage 1	-	-	-	-	-	-	52		-	26	26	-
Stage 2	- / 12	-	-	112	-	-	28	26	- 4 22	53	86	4.22
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	- 2 210	-	-	2 210	-	-	6.12	5.52	2 210	6.12	5.52	2 210
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	812 852	1018	910 992	778 874	1061
Stage 1	-	-	-	-	-	-	961	852	-	960	874	-
Stage 2 Platoon blocked, %	-	-	-	-	-	-	989	8/4	-	900	ŏ24	-
	1500	-	-	1512	-	-	001	808	1017	OUE	77 /	1061
Mov Cap 2 Manager	1599			1312	-	-	901 901	808	1017	905 905	774 774	1001
Mov Cap-2 Maneuver	-	-	-	-	-	-			-			
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							Α			Α		
Minor Lane/Major Mvm	t 1	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	CDI n1			
	it l											
Capacity (veh/h)		902	1599	-		1512	-	-	844			
HCM Card Data (a)		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	Α	-	A	А	-	A			
HCM 95th %tile Q(veh)		0.3	0	-	-	0	-	-	0			

Intersection						
Int Delay, s/veh	0.8					
		EDD	NDL	NDT	CDT	CDD
Movement Lang Configurations	EBL Y	EBR	NBL	NBT €Î	SBT	SBR **
Lane Configurations		21	22			
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		-	-	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	N	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, %	333			_		_
Mov Cap-1 Maneuver	78	400	806	-	-	
Mov Cap-1 Maneuver	259	400	800	-	-	-
	427	-	-	-	-	-
Stage 1		-	-	-	-	-
Stage 2	332	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	20.5		0.2		0	
HCM LOS	С					
Minor Lanc/Major Mum	1	NIDI	NDT	EDI n1	CDT	CDD
Minor Lane/Major Mvn	IL	NBL		EBLn1	SBT	SBR
Capacity (veh/h)		806	-	= ' '	-	-
HCM Lane V/C Ratio		0.027		0.211	-	-
LIOMA O L L D L C		() 4	()	20.5	_	-
HCM Control Delay (s)		9.6	0			
HCM Control Delay (s) HCM Lane LOS HCM 95th %tile Q(veh		9.0 A 0.1	A	C 0.8	-	-

	•	•	+	<u> </u>		1
Movement	₩BL	WBR	NBT	NBR	SBL	♥ SBT
Lane Configurations	WDL	WDR	ND ↑ }	NDK	JDL	<u>361</u>
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
, ,	1.00	1.00	U	1.00	1.00	U
Ped-Bike Adj(A_pbT)			1.00			1.00
Parking Bus, Adj	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(q_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	1.7	0.00	0.00	2.0
Lane Grp Cap(c), veh/h	387	0.07	1434	0.00	0.00	1434
V/C Ratio(X)	0.80	0.00	0.26	0.00	0.00	0.43
	1143	0.00	3449	0.00	0.00	3449
Avail Cap(c_a), veh/h						
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	Α		Α			Α
Approach Vol, veh/h	308		375			619
Approach Delay, s/veh	8.8		4.1			4.5
Approach LOS	А		Α			А
•					_	
Timer	1	2	3	4	5	6
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			
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		41∱	7		4î.			4	7		4	7
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	С	С	Α	С		С	D		С	D		<u>C</u>
Approach Vol, veh/h		692			517			358			464	
Approach Delay, s/veh		16.9			23.2			38.0			36.0	
Approach LOS		В			С			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			С									

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	ኘ	<u> </u>	↑	7	"	7	
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	
2 Serve(g_s), s	29.1	8.4	20.7	31.8	30.2	19.0	
	29.1	8.4	20.7	31.8	30.2	19.0	
Cycle Q Clear(g_c), s	1.00	0.4	20.7	1.00		1.00	
Prop In Lane		1257	717		1.00	798	
Lane Grp Cap(c), veh/h	431	1257	747	1028	462		
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	
Jpstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Jniform Delay (d), s/veh	48.3	8.2	29.6	12.8	46.7	20.7	
ncr Delay (d2), s/veh	17.9	0.5	2.6	2.9	15.6	0.3	
nitial 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	
_nGrp Delay(d),s/veh	66.2	8.7	32.2	15.7	62.3	21.0	
_nGrp LOS	E	A	С	В	E	С	
Approach Vol, veh/h		713	1034		784		
Approach Delay, s/veh		41.4	21.9		43.4		
Approach LOS		D	С		D		
imer	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+l1), s		10.4		32.2	31.1	33.8	
Green Ext Time (p_c), s		1.3		1.7	0.5	2.2	
ntersection Summary							
HCM 2010 Ctrl Delay			34.0				
HCM 2010 LOS			C				
Notes							
Notes FHCM 2010 computational en							

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			र्स	7		4Te		ሻ	↑ ⊅	
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	C
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	0.0	0.04	0.69	0.0	1.00	0.00	0.0	0.13	1.00	7.5	0.11
Lane Grp Cap(c), veh/h	151	0	0.04	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	0.00	0.00	375	0.00	1055	993	0.00	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	0.00	15.0	43.3	0.00	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	04.Z E	0.0	0.0	57.5 E	0.0	В	D D	0.0	50.7 E	C	3.5 A	3.5 A
Approach Vol, veh/h	<u> </u>	79		<u> </u>	283	D	<u> </u>	1007	<u> </u>		956	
Approach Delay, s/veh		64.2			24.9			56.6			6.1	
Approach LOS		04.Z E			24.9 C			30.0 E			ο. 1	
Approacti LOS		E			C			Е			А	
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			С									
Notes												
* HCM 2010 computational en	nine ren	uires eau	al clearan	ce times	for the ph	ases cros	ssing the	harrier				

Background+P PM.syn Hexagon

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	ሻሻ	↑ ↑↑	† †	WEIK	ሻ	77	
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	7.0	17.7	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	С	Α	С	С	С	В	
Approach Vol, veh/h		1365	1696		831		
Approach Delay, s/veh		15.7	22.9		21.1		
Approach LOS		В	C		C		
Timer	1	2	3	4	5	6	7 8
Assigned Phs	1	2	<u> </u>	4	J	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+l1), s	12.6	21.7				6.0	12.2
Green Ext Time (p_c), s	0.8	3.4				6.4	1.3
	0.0	3.4				0.4	1.3
Intersection Summary			00.0				
HCM 2010 Ctrl Delay			20.0				
HCM 2010 LOS			В				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	र्स	7	ř	(î		¥	^	7	¥	† †	7
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	8.0	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	В	А	E	В	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			В	
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												
			es for turi									

Cap

Service Time

HCM Lane V/C Ratio

HCM Control Delay

HCM Lane LOS

HCM 95th-tile Q

369

28.4

D

4.2

407

21.7

C

3.1

365

0.637 0.541 0.123 0.972 0.208

14

В

0.4

390

72.4

11.5

7.522 6.601 7.572 7.052 6.324 7.857 7.273 8.172

418

13.6

В

8.0

357

0.51

23

C

2.8

380

32

D

5.2

346

25.2

D

3.1

0.7 0.549

Intersection													
Intersection Delay, s/ve	h36.3												
Intersection LOS	Ε												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	Ĭ	†	7	Ť	f)			र्स	7		4		
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 Le	ft SB			NB			EB			WB			
Conflicting Lanes Left	1			2			3			2			
Conflicting Approach Ri	ghNB			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	N	IBLn11	VBLn2	EBLn1	EBLn2	EBLn3\	NBLn1V	VBLn2	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 (Ho	d)	9.799	8.878	9.851	9.331		10.101		10.409				
Convergence, Y/N		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes				

	•	→	•	•	-	•	•	†	<i>></i>	<u> </u>	+	-√
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		414			€ 1₽		Ĭ	ተተኈ		Ŋ	^	7
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	0.7	0.00	0.79	0.0	0.82	1.00	• • • • • • • • • • • • • • • • • • • •	0.28	1.00	17.10	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	0.0	F	0.0	F	F	F	F	F	C	0.0
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				
	1		<u>ა</u>				1					
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+l1), 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			25.5									
HCM 2010 Ctrl Delay			95.2									
HCM 2010 LOS			F									

	•	→	•	•	-	•	•	†	~	/	+	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	∱ ∱		1/1	†	7	ሻ	† †	7	44	† †	7
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	С	E	С	Α	E	С	A
Approach Vol, veh/h		490			1100			1579			1660	
Approach Delay, s/veh		67.2			48.0			21.6			29.9	
Approach LOS		Е			D			С			С	
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+l1), 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 righ	nt turn typ	oe.										

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Movement	₩BL	WBR	NBT	NBR	SBL	SBT	
	WDL TT	WDK 77	<u>₩</u>	NDK	SDL	<u>361</u>	
Lane Configurations	510	294	2123	0	0	987	
Traffic Volume (veh/h)	510	294	2123	0	0	987	
Future Volume (veh/h)					0		
Number	3	18 0	2	12 0	1	6	
Initial Q (Qb), veh	1.00		0		1.00	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
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	1.00	1.00	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	С	С	В			А	
Approach Vol, veh/h	804		2123			987	
Approach Delay, s/veh	31.1		11.2			5.5	
Approach LOS	С		В			A	
• •	1	2			F		7
Timer		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+l1), 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			В				

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Mouamant		▼	NDI .		▼	CDD.
Movement Lana Configurations	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	ነካ	402	^	††	^	^
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		10.9	3.8	0.00
•			0.00	1/22	1422	
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	С	В		В	Α	
Approach Vol, veh/h	1774			1077	973	
Approach Delay, s/veh	25.5			18.8	3.2	
Approach LOS	23.3 C			В	3.2 A	
•	C			D	A	
Timer	1	2	3	4	5	6
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
ų – <i>r</i>				J. 1		٥.٤
Intersection Summary						
HCM 2010 Ctrl Delay			17.9			
HCM 2010 LOS			В			

Intersection					
Intersection Delay, s/v	veh14.3				
Intersection LOS	В				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		414			47>			4			4		
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 Lo	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			2			2			
Conflicting Approach R	ighNB			SB			WB			EB			
Conflicting Lanes Right	1			1			2			2			
HCM Control Delay	15.9			12.8			12.9			13.3			
HCM LOS	C			R			R			R			

Lane	NBLn1	EBLn1	EBLn2V	VBLn1V	VBLn2	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					
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	В	С	С	В	В	В	
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		414			414			4			4	
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 M	ajor1		N	/lajor2		N	Minor1		N	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	N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1			
Capacity (veh/h)		252	881		_	902			199			
HCM Lane V/C Ratio		0.095		-	_	0.022	_	_	0.714			
HCM Control Delay (s)		20.8	9.5	0.5	_	9.1	0.1	_	58.5			
HCM Lane LOS		C	Α.	Α	_	A	A	_	50.5 F			
HCM 95th %tile Q(veh)		0.3	0.3	-	-	0.1	-	-	4.6			
		3.0	3.0			3.1			1.0			

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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	90	-	-	00	-	-	83	83	82	111	111	90
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	4.12	_		4.12	-	-	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 2	-	-		_	-		6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	_	_	2.218	_	-	3.518		3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1498	_	_	1510	_	_	768	700	978	756	697	960
Stage 1	- 1770	_	_	-	_	_	925	826	-	894	804	-
Stage 2	_	_	_	_	_	-	896	803	_	916	822	-
Platoon blocked, %		_	_		_	_	070	000		710	522	
Mov Cap-1 Maneuver	1493	_	_	1509	_	-	762	692	976	736	689	956
Mov Cap-2 Maneuver	1475	_	-	-	_	_	762	692	-	736	689	-
Stage 1	-	_	-	-	-	-	923	824	-	890	797	-
Stage 2		_	-	_	_	-	889	796		899	820	-
3.ago 2							307	. , 5		3,,	320	
) A / E			NE			0.5		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.6			9.4			9.7		
HCM LOS							Α			Α		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1			
Capacity (veh/h)		843	1493		_	1509			765			
HCM Lane V/C Ratio		0.036		_		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	-	Α			
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		4			4			4			4	
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	e,# -	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 I	Major1		<u> </u>	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							Α			Α		
Minor Lane/Major Mvm	nt	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		Α	Α	Α	-	Α	Α	-	А			
HCM 95th %tile Q(veh))	0.2	0	-	-	0	-	-	0.2			

Int Delay, s/weh 3													
Movement	Intersection												
Carefic Vol. verb/h	Int Delay, s/veh	3											
Carefic Vol. verb/h	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBI	NBT	NBR	SBI	SBT	SBR
Traffic Vol, veh/h													
Future Vol, veh/h		1		2	13		2	7		13	1		5
Conflicting Peds, #hr		-						•			•		
Sign Control Free Stop Stop Stop Stop Stop None Color None None Color No	·												
RT Channelized - None No							Free						Stop
Storage Length		-									•		
Weh in Median Storage, # 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - 0 - - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 0 - 0 0 - 0 0 - 0 0 - 0 0 - 0 0 - 0 0 100 <t< td=""><td></td><td></td><td></td><td>-</td><td>-</td><td>-</td><td>-</td><td></td><td>-</td><td>-</td><td></td><td></td><td>-</td></t<>				-	-	-	-		-	-			-
Grade, % - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - 1 0 100 <th< td=""><td></td><td>. # -</td><td>0</td><td>_</td><td>-</td><td>0</td><td>-</td><td>-</td><td>0</td><td>-</td><td>-</td><td>0</td><td>-</td></th<>		. # -	0	_	-	0	-	-	0	-	-	0	-
Peak Hour Factor		-		_	-								_
Major/Minor Major1 Major2 Minor1 Minor2 Minor3 Major4 Major5 Minor4 Major5 Minor4 Major5 Minor5 Major5 Minor6 Major6 Major6 Major6 Major7 Minor7 Major7 Major8 Minor8 Major8 Major		100		100	100		100	100		100	100		100
Mymin Flow 1 46 2 13 55 2 7 11 13 1 3 5 Major/Minor Major1 Major2 Minor1 Minor2 Minor2 Conflicting Flow All 58 0 0 48 0 0 136 133 49 146 133 58 Stage 1 - - - - - 49 49 - 83 83 - Stage 2 - - - - - 49 49 - 83 83 - Critical Hdwy 4.12 - - 4.12 - - 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 <													
Major/Minor Major Major Major Minor Minor													
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 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 <													
Conflicting Flow All 58 0 0 48 0 0 136 133 49 146 133 58 Stage 1 - - - - - 49 49 - 83 83 - Stage 2 - - - - - 47 49 49 - 83 83 - 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 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 <td< td=""><td>Major/Minor N</td><td>Maior1</td><td></td><td>_ N</td><td>Maior?</td><td></td><td>- 1</td><td>Minor1</td><td></td><td></td><td>Minor?</td><td></td><td></td></td<>	Major/Minor N	Maior1		_ N	Maior?		- 1	Minor1			Minor?		
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 - 2.218 - 6.12 5.52 - 6.12 5.52 - Follow-up Hdwy 2.218 - 1559 - 835 758 1002 823 758 1008 Stage 1 - - - - 921 825<			0			0			122			122	50
Stage 2 - - - - 87 84 - 63 50 - Critical Hdwy 4.12 - 4.12 - 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.22 7.12 6.22 7.12 6.22 7.12 6.22 7.12 6.12 5.22 7.12 6.12 5.22 7.12 6.12 5.22 7.12 6.12 8.23 7.12 6.12 8.23 7.12 6.12													
Critical Hdwy Stg 1 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 - Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - Critical Hdwy Stg 2 6.12 5.52 - 6.12 5.52 - Critical Hdwy Stg 2 6.12 5.52 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 Critical Hdwy Stg 2 6.12 5.52 Critical Hdwy Stg 2	O .			_	_								
Critical Hdwy Stg 1 - - - - 6.12 5.52 - 6.12 8.01 8.01 6.12 8.02 <td></td> <td><i>1</i> 12</td> <td>-</td> <td>-</td> <td><i>1</i> 12</td> <td>-</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>6 22</td>		<i>1</i> 12	-	-	<i>1</i> 12	-	-						6 22
Critical Hdwy Stg 2	3	4.12		_	4.12								
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, % 1559 - 822 750 1018 795 750 1006 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 - Platom blocked, %		_		_		_							-
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, % - - - - - - - - 948 853 - 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 - A - - - - - - 904<		2 218	_	_	2 218	_							3 318
Stage 1 - - - - 964 854 - 925 826 - Stage 2 - - - - 921 825 - 948 853 - Platoon blocked, % -				_		_							
Stage 2 - - - - 921 825 - 948 853 - Platoon blocked, % - <t< td=""><td>•</td><td>1040</td><td></td><td></td><td>1007</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1000</td></t<>	•	1040			1007								1000
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				_									
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 SB HCM Control Delay, s 0.1 1.4 9.3 9.1 HCM LOS A A A Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1			_	_		_		721	020		740	000	
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 SB NB SB NB N		1545	_	_	1559	_		822	750	1018	795	750	1006
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 A Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1		-	_	_	-	_							
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 A Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1		_	_	_	_	_							_
Approach EB WB NB SB HCM Control Delay, s 0.1 1.4 9.3 9.1 HCM LOS A A A Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1	ū	_	_	_	_	_							
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									3.7		/=	302	
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	Annroach	FR			WR			MR			SR		
HCM LOS A A Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1													
Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1		0.1			1.4								
	TIOWI LOO							A			A		
,	Minor Long/Maior M		VIDL1	EDI	EDT	EDD	WDI	MDT	MDD	CDL1			
Canacity (VANIN) 867 T5/15 = 1550 = 880		it l						WBI	WBR				
	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						-		Α					
HCM 95th %tile Q(veh) 0.1 0 0 - 0	HCM 95th %tile Q(veh)		0.1	0	-	-	0	-	-	0			

Intersection						
Int Delay, s/veh	3.3					
	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	₽			र्स	¥	
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
	ajor1		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	_
Jiago Z	-	-	_	_	743	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.2		8.7	
HCM LOS					Α	
		NBLn1	EDT	EDD	MDI	WDT
Minor Long/Material		urini	EBT	EBR	WBL	WBT
Minor Lane/Major Mvmt						
Capacity (veh/h)	ľ	1006	-	-	1556	-
Capacity (veh/h) HCM Lane V/C Ratio	· ·	1006 0.039			0.012	-
Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s)		1006 0.039 8.7	-			0
Capacity (veh/h) HCM Lane V/C Ratio		1006 0.039	-	-	0.012	-

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	2,# -	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 I	Major1			Major2			Minor1			Minor2		
Conflicting Flow All		0		<u>viajui 2</u> 59	0			200			210	70
<u> </u>	71	0	0		0	0	224 127	208 127	55 -	209 79	79	
Stage 1		-	-	-	-	-	97	81		130	131	-
Stage 2	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy	4.12			4.12	-	-	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	
Critical Hdwy Stg 2	2.218			2.218		-	3.518		3.318	3.518	4.018	3.318
Follow-up Hdwy Pot Cap-1 Maneuver	1529	-	-	1545	-	-	732	4.018	1012	748	4.018	993
	1029			1040	-	-	877	791	1012	930	829	993
Stage 1	-	-	-	-	-	-	910	828	-	874	788	
Stage 2 Platoon blocked, %						-	910	020	-	0/4	700	-
	1524	-	-	15//	-	-	600	640	1011	724	666	001
Mov Cap 2 Manager	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							Α			Α		
Minor Lane/Major Mvm	nt f	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1			
Capacity (veh/h)		759	1526		-	1544			939			
HCM Lane V/C Ratio		0.012		_		0.003	-	_	0.043			
HCM Control Delay (s)		9.8	7.4	0	_	7.3	0		9			
HCM Lane LOS		7.0 A	Α.4	A	-	7.5 A	A	_	A			
HCM 95th %tile Q(veh))	0	0.1	-		0	-	_	0.1			
HOW FOUT FOUTE Q(VEH)	1	U	0.1			U	_	_	0.1			

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	В

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	А			Α			А			В		

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	Α	Α	Α	В	
HCM 95th-tile Q	0.8	0.3	0.6	2.4	

		tersection
	eh39.5	tersection Delay, s/ve
	Е	tersection LOS
	Ł	tersection LOS

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach R	ightNB			SB			WB			EB			
Conflicting Lanes Right	1			1			1			1			
HCM Control Delay	15			13.5			21.4			64.8			
HCM LOS	В			В			С			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	С	В	В	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	LUL	4	LDIN	VVDL	₩	VVDI\	NDL	4	NUI	JDL	- 4	JUIN
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 N	Major1			Major2		1	Minor1		1	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							Α			Α		
Minor Lane/Major Mvm	nt ſ	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		913	1606	_	_	1493	-	-	-			
HCM Lane V/C Ratio			0.001	-	-	0.001	-	-	-			
HCM Control Delay (s)		9.7	7.2	0	-	7.4	0	_	0			
HCM Lane LOS		Α	Α	A	-	Α	A	-	A			
HCM 95th %tile Q(veh))	0.6	0	-	-	0	-	-	-			

Intersection						
Int Delay, s/veh	0.8					
		LDD	NDI	NDT	CDT	CDD
Movement	EBL Y	EBR	NBL	NBT	SBT	SBR
Lane Configurations		00	0	4	†	7
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		-	-	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 I	Minor2		Major1	١	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	0.22	7.12	_	_	_
Critical Hdwy Stg 2	5.42					
Follow-up Hdwy		3.318	2.218	_	_	_
Pot Cap-1 Maneuver	109	405	752		_	
Stage 1	461	403	132	_		_
Stage 2	401	_			_	
Platoon blocked, %	401	-	-			-
	106	404	750	-	-	-
Mov Cap-1 Maneuver	106					
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	С					
NA'		NDI	NDT	EDL1	CDT	CDD
Minor Lane/Major Mvm	11	NBL		EBLn1	SBT	SBR
Capacity (veh/h)		750	-	0_0	-	-
		0.012	-	0.22	-	-
HCM Lane V/C Ratio			_			
HCM Lane V/C Ratio HCM Control Delay (s)		9.9	0	19	-	-
HCM Lane V/C Ratio			0 A		-	-

Movement WBL WBR NBT NBR SBL SBT
Lane Configurations Y ↑↑ 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 (Ob), veh 0 0 0 0 0 0 Ped-Bike Adj(A_pbT) 1.00 1.00 1.00 1.00 1.00 1.00 Parking Bus, Adj 1.00 1.00 1.00 1.00 1.00 1.00 1.00 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 1.00 Peak Hour Factor 1.00 1.00 1.00
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 0 0 0 Ped-Bike Adj(A_pbT) 1.00 1.00 1.00 1.00 1.00 Parking Bus, Adj 1.00 1.00 1.00 1.00 1.00 1.00 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 0 2 0 0 2 Peak Hour Factor 1.00 1.00 1.00 1.00 1.00 1.00 Parrive 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 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 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 0.0 0.0 0.0 0.0 0.0 Sile BackOfQ(50%),veh/ln 8.8 0.0 1.4 0.0 0.0 4.5 LnGrp Delay(d), s/veh 10 0.0 0.0 0.0 0.0 0.0 Sile BackOfQ(50%),veh/ln 8.8 0.0 1.4 0.0 0.0 4.5 LnGrp Delay(d), s/veh 12.7 0.0 0.0 0.0 0.0 0.0 Sile BackOfQ(50%),veh/ln 8.8 0.0 1.4 0.0 0.0 4.5 LnGrp Delay(d), s/veh 12.7 0.0 0.2 0.0 0.0 0.0 Sile BackOfQ(50%),veh/ln 8.8 0.0 1.4 0.0 0.0 4.5 LnGrp Delay(d), s/veh 12.7 0.0 0.2 0.0 0.0 0.0 0.0 Sile BackOfQ(50%),veh/ln 8.8 0.0 1.4 0.0 0.0 4.5 LnGrp Delay(d), s/veh 12.7 0.0 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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 0 0 Ped-Bike Adj(A_pbT) 1.00 1.00 1.00 1.00 1.00 Parking Bus, Adj 1.00 1.00 1.00 1.00 1.00 1.00 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 Parrive 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 836 0 1525 0 0 1329 V/C Ratio(X) 0.91 0.00 0.30 0.00 0.00 Lane Grp Cap(c), veh/h 836 0 1525 0 0 1525 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 Upstream Filter(I) 1.00 0.00 1.00 0.00 0.00 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 8.8 0.0 1.4 0.0 0.0 0.0 0.0
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Initial Q (Qb), veh
Ped-Bike Adj(A_pbT) 1.00 </td
Parking Bus, Adj 1.00
Adj Saf 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 1.00 Peak Hour Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Peak Hour Factor 1.00
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
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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 0.0 8.8 Prop In Lane 0.97 0.03 0.00 0.0 0.0 Lane Grp Cap(c), veh/h 736 0 1329 0 0 1329 V/C Ratio(X) 0.91 0.00 0.30 0.00 </td
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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 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 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 0.0 0.0 9.8 1.00 0.0 0.0 0.0 9.8 1.00 0.0 0.0 <td< td=""></td<>
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 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 1.00 Upstream Filter(I) 1.00 0.00 1.00 0.00 0.0 0.0 9.8 Incr Delay (d2), s/veh 9.9 0.0 7.9 0.0 0.0 9.8 Initial Q Delay(d3),s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 </td
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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
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 1.00 Upstream Filter(I) 1.00 0.00 1.00 0.00 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 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 Approac
V/C Ratio(X) 0.91 0.00 0.30 0.00 0.05 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 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
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 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 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
HCM Platoon Ratio 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
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
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 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.5 1.4 0.0 0.0 4.5 1.7
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.
%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
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
LnGrp LOS C A B Approach Vol, veh/h 673 398 999
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
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+l1), 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

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		41∱	7		4T)			4	7		4	7
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(q_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
·0= /	22.1	14.1	25.8	19.1	0.0	19.1	25.5	0.0	1.2	27.0	0.0	0.9
Cycle Q Clear(g_c), s		14.1			0.0			0.0			0.0	
Prop In Lane	0.25	F20	1.00	0.10	0	0.44	0.37	0	1.00	0.16	0	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	С	С	В	D		D	D		С	D		<u>C</u>
Approach Vol, veh/h		948			651			466			494	
Approach Delay, s/veh		23.8			36.2			48.3			47.5	
Approach LOS		С			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									

	•	→	←	•	>	4	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	ሻ	†	†	7	ሻ	7	
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	
2 Serve(q_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	12.7		1.00	1.00	1.00	
_ane 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	
Jpstream 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	В	С	В	E	В	
Approach Vol, veh/h		765	680		819		
Approach Delay, s/veh		37.2	17.7		41.0		
Approach LOS		D	В		D T1.0		
<u> </u>							
imer	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	
ntersection Summary							
HCM 2010 Ctrl Delay			32.7				
HCM 2010 LOS			С				
Votes							
HCM 2010 computational en	aine rea	uires equa	al clearan	ce times f	or the nh	ases cros	ssing the barrier.
TIOM 2010 computational chi	gino roqu	an oo oque	ar Giodi di i	00 111103 1	or the pri	4303 0100	Joing the bullion

Cumulative AM.syn Hexagon

Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h	193 193 7 0 1.00 1.00 193 0 1.00 2 277 0.29	## 132	12 12 14 0 0.98 1.00 1900	45 45 3 0 1.00 1.00	WBT 19 19 8 0	WBR 173 173 18	NBL 1 1	NBT 41- 803 803	NBR 82 82	SBL ** 289 289	SBT †1 - 933 933	SBR 33
Traffic Volume (veh/h) Future Volume (veh/h) Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	193 7 0 1.00 1.00 1900 193 0 1.00 2 277	132 132 4 0 1.00 1863 132	12 14 0 0.98 1.00	45 3 0 1.00	19 19 8	173 173 18	1	803 803	82	289	933	33
Future Volume (veh/h) Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	193 7 0 1.00 1.00 1900 193 0 1.00 2 277	132 4 0 1.00 1863 132 1	12 14 0 0.98 1.00	45 3 0 1.00	19 8	173 18	1	803	82			33
Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	7 0 1.00 1.00 1900 193 0 1.00 2 277	1.00 1863 132	14 0 0.98 1.00 1900	3 0 1.00	8	18				289	വാവ	
Initial Q (Qb), veh Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/In Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	0 1.00 1.00 1900 193 0 1.00 2 277	1.00 1863 132	0 0.98 1.00 1900	0 1.00			1			207	733	33
Ped-Bike Adj(A_pbT) Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	1.00 1.00 1900 193 0 1.00 2	1.00 1863 132	0.98 1.00 1900	1.00	0			6	16	5	2	12
Parking Bus, Adj Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	1.00 1900 193 0 1.00 2 277	1863 132 1	1.00 1900			0	0	0	0	0	0	C
Adj Sat Flow, veh/h/ln Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	1900 193 0 1.00 2 277	1863 132 1	1900	1.00		0.98	1.00		0.98	1.00		1.00
Adj Flow Rate, veh/h Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	193 0 1.00 2 277	132 1			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj No. of Lanes Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	0 1.00 2 277	1	12	1900	1863	1863	1900	1863	1900	1863	1863	1900
Peak Hour Factor Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	1.00 2 277		١Z	45	19	173	1	803	82	289	933	33
Percent Heavy Veh, % Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	2 277	1.00	0	0	1	1	0	2	0	1	2	C
Cap, veh/h Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	277		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Arrive On Green Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane		2	2	2	2	2	2	2	2	2	2	2
Sat Flow, veh/h Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/In Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	0.20	157	13	323	124	852	45	921	94	447	2071	73
Grp Volume(v), veh/h Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.25	0.59	0.59
Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	708	539	46	847	425	1558	1	3167	323	1774	3487	123
Grp Sat Flow(s),veh/h/ln Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	337	0	0	64	0	173	473	0	413	289	473	493
Q Serve(g_s), s Cycle Q Clear(g_c), s Prop In Lane	1293	0	0	1272	0	1558	1862	0	1629	1774	1770	1841
Cycle Q Clear(g_c), s Prop In Lane	17.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.3	11.6	11.9	11.9
Prop In Lane	20.3	0.0	0.0	2.7	0.0	0.0	19.3	0.0	19.3	11.6	11.9	11.9
	0.57		0.04	0.70		1.00	0.00		0.20	1.00		0.07
Lane Gid Cadica, venin	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	С			С		Α	D		D	С	В	В
Approach Vol, veh/h		337			237			886			1255	
Approach Delay, s/veh		33.1			12.6			42.0			14.5	
Approach LOS		С			В			D			В	
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+l1), 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 Car belay			23.0 C									
Notes * HCM 2010 computational engi												

Cumulative AM.syn Hexagon

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	44	ተተተ	^		"	77	
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	<u> </u>		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	
	1721	18.1	18.9	18.9	23.4	15.2	
Q Serve(g_s), s Cycle Q Clear(q_c), s	12.6	18.1	18.9	18.9	23.4	15.2	
, ,	1.00	10.1	10.9	0.69	1.00	1.00	
Prop In Lane	651	2742	1012	481	635	1525	
Lane Grp Cap(c), veh/h V/C Ratio(X)	0.88	2742 0.62	1013		0.89	0.55	
			0.86	0.86			
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	В	D	D	D	В	
Approach Vol, veh/h		2277	1286		1406		
Approach Delay, s/veh		21.1	38.0		21.8		
Approach LOS		С	D		С		
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+l1), 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	J						
			2F 7				
HCM 2010 Ctrl Delay			25.7				
HCM 2010 LOS			С				

Lane Configurations		۶	→	•	•	+	4	1	†	<i>></i>	\	↓	-√
Lane Configurations	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Fratfic Volume (veh/h)													1
Future Volume (veh/h)				209	29		27				28		449
Number 3 8 18 7 4 14 14 5 2 12 12 1 6 1	, ,							99					449
Initial Q (Ob), yeh						4		5					16
Parking Bus, Adj	Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0
Parking Bus, Adj	Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.98	1.00		0.97
Adj Flow Rate, veh/h 508 0 209 29 17 27 99 767 90 28 1103 44 Adj No of Lanes 2 0 1 1 0 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 2 <t< td=""><td></td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td><td>1.00</td></t<>		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 No. of Lanes 2 0 1 1 1 0 1 2 1 1 2 1 1 2 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj No. of Lanes 2 0 1 1 1 0 1 2 1 1 2 1 1 2 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Adj Flow Rate, veh/h	508	0	209	29	17	27	99	767	90	28	1103	449
Percent Heavy Veh, % 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		2	0	1	1	1	0	1	2	1	1	2	1
Cap, veh/h 580 0 257 104 37 60 522 2311 1101 36 1326 83 Arrive On Green 0.16 0.00 0.06 0.06 0.06 0.05 0.09 1.00 1.00 0.02 0.37 0.03 1572 1774 641 1017 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 1770 1545 1774 1770 154 0 252 1710 1710 160 160 160 160	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
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 0.3 SAI Flow, veh/h 3548 0 1572 1774 641 1017 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 3539 1545 1774 1770 1770 1545 1774 1770 1545 1774 1770 1770 1770 1770 1770 1770 1770	Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Sat Flow, veh/h 3548 0 1572 1774 641 1017 1774 3539 1545 1774 3539 1545 Gry Volume(v), veh/h 508 0 209 29 0 44 99 767 90 28 1103 44 Gry Sat Flow(s), veh/h/lin 1774 0 1572 1774 0 1658 1774 1770 1545 1774 1770 1540 O 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. Cycle O 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. Cycle O 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. Cycle O Clear(g_c), s 22.4 0.0 0.6 1.0 0.0 1.0	Cap, veh/h	580	0	257	104	37	60	522	2311	1101	36	1326	836
Grp Volume(v), veh/h 508 0 209 29 0 44 99 767 90 28 1103 44 Grp Sat Flow(s), veh/h/ln 1774 0 1572 1774 0 1658 1774 1770 1545 1777 1770 1540 2 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. 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. 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. 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. 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. 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. Cycle Q Clear(g_c), veh/h 580 0 257 104 0 97 522 2311 1101 36 1326 83 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 0.5 Avail Cap(c_a), veh/h 820 0 363 299 0 280 522 2311 1101 67 1398 86 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 1.00 2.00 2	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
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. 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. Prop In Lane 1.00 1.00 1.00 0.61 1.00 <	Sat Flow, veh/h	3548	0	1572	1774	641	1017	1774	3539	1545	1774	3539	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. 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. Prop In Lane 1.00	Grp Volume(v), veh/h	508	0	209	29	0	44	99	767	90	28	1103	449
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. Prop In Lane 1.00 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 83 Vic Ratio(X) 0.88 0.00 0.81 0.28 0.00 0.45 0.19 0.33 0.08 0.79 0.83 0.5 Avail Cap(c_a), veh/h 820 0 363 299 0 280 522 2311 1101 67 1398 86 HCM Platoon Ratio 1.00 0.00 0.00 0.00	Grp Sat Flow(s), veh/h/ln	1774	0	1572	1774	0	1658	1774	1770	1545	1774	1770	1540
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 83 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 0.5 Avail Cap(c_a), veh/h 820 0 363 299 0 280 522 2311 1101 67 1398 86 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 2.00 2.00 2.00 1.10 1.00 1.00 1.00 1	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
Lane Grp Cap(c), veh/h 580 0 257 104 0 97 522 2311 1101 36 1326 83 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 0.5 Avail Cap(c_a), veh/h 820 0 363 299 0 280 522 2311 1101 67 1398 86 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 0.74 0.74 0.74 1.00 1.00 1.00 1.00 Upstream Filter(f) 1.00 0.00 1.00 0.00 0.00 0.074 0.74 0.74 0.74 1.00 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 74 0.74 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 0.0 0.		22.4	0.0	20.5	2.5	0.0	4.1	4.1	0.0	0.0	2.5	45.3	30.4
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 0.5 Avail Cap(c_a), veh/h 820 0 363 299 0 280 522 2311 1101 67 1398 86 HCM Platoon Ratio 1.00 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 1.00 1.00 1.00 0.00 1.00	Prop In Lane	1.00		1.00	1.00		0.61	1.00		1.00	1.00		1.00
Avail Cap(c_a), veh/h 820 0 363 299 0 280 522 2311 1101 67 1398 86 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 2.00 2.00	Lane Grp Cap(c), veh/h	580	0	257	104	0	97	522	2311	1101	36	1326	836
HCM Platoon Ratio	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
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 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. 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 2.1 Initial Q Delay(G3), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Avail Cap(c_a), veh/h	820	0	363	299		280		2311	1101	67	1398	867
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. 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 2.1 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.		1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
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 2.1 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.													1.00
Initial Q Delay(d3),s/veh													24.1
%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 18.1 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 26.2 LnGrp LOS E E E E E C A A F D 0 Approach Vol, veh/h 717 73 956 1580 Approach Delay, s/veh 72.4 74.4 2.7 45.2 Approach LOS E E E A D Timer 1 2 3 4 5 6 7 8 Assigned Phs 1 2 3 4 5 6 7 8 Assigned Phs 1 2 4 5 6 8 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													2.5
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. LnGrp LOS E E E E E C A A F D O Approach Vol, veh/h 717 73 956 1580 Approach Delay, s/veh 72.4 74.4 2.7 45.2 Approach LOS E E E A D Timer 1 2 3 4 5 6 7 8 Assigned Phs 1 2 4 5 6 8 8 Phs Duration (G+Y+Rc), s 7.2 109.1 13.6 51.7 64.6 30.2 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 (p_c), s </td <td></td> <td>0.0</td>													0.0
LnGrp LOS E E E E E C A A F D O Approach Vol, veh/h 717 73 956 1580 Approach Delay, s/veh 72.4 74.4 2.7 45.2 Approach LOS E 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													18.0
Approach Vol, veh/h 717 73 956 1580 Approach Delay, s/veh 72.4 74.4 2.7 45.2 Approach LOS E 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+l1), 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			0.0			0.0						51.6	26.5
Approach Delay, s/veh		<u>E</u>		<u>E</u>	E		E	C		A	F		<u>C</u>
Approach LOS E 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													
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													
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	Approach LOS		E			Е			А			D	
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	Timer	1	2	3	4	5	6	7	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	Assigned Phs	1	2		4	5	6		8				
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+l1), 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	Phs Duration (G+Y+Rc), s	7.2	109.1		13.6	51.7	64.6		30.2				
Max Green Setting (Gmax), s 6.0 73.2 * 27 16.0 * 63 37.0 Max Q Clear Time (g_c+l1), 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		4.0	4.6		* 4.2	4.6	* 4.6		4.0				
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	Max Green Setting (Gmax), s	6.0	73.2		* 27	16.0	* 63		37.0				
Intersection Summary HCM 2010 Ctrl Delay 39.5	Max Q Clear Time (g_c+I1), s	4.5	2.0		6.1	6.1	47.3		24.4				
HCM 2010 Ctrl Delay 39.5	Green Ext Time (p_c), s	0.0	15.2		0.2	0.1	12.7		1.7				
J .	Intersection Summary												
HCM 2010 LOS	HCM 2010 Ctrl Delay			39.5									
1000 2010 200	HCM 2010 LOS			D									
Notes	Notes												
User approved volume balancing among the lanes for turning movement.	User approved volume balanci	ng amoi	ng the lan	es for turi	ning move	ement.							

Cumulative AM.syn Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	†	7	ሻ	f)			4	7		4	
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	8.0	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	С	В	С		В	В		В	В		
Approach Vol, veh/h		527			714			559			369	
Approach Delay, s/veh		24.4			19.9			14.9			18.6	
Approach LOS		С			В			В			В	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2	3	4	<u> </u>	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			В									
Notes												
User approved pedestrian inte	rval to be	e less tha	n phase r	nax greei	າ.							

Cumulative AM.syn Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	∱ Ъ		ሻ	†	7	ň	ተተኈ		ሻ	^	7
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	10.1	0.00	1.00	01.0	1.00	1.00	00.7	0.16	1.00	01.0	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	0,0	F	E	E	0,0	F	F	F	C	0.0
Approach Vol, veh/h		322			914			2057			1706	
Approach Delay, s/veh		86.4			74.9			144.5			34.9	
Approach LOS		F			Ε			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+l1), 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	8.0	0.0	20.1	0.0	3.3				
Intersection Summary												
HCM 2010 Ctrl Delay			90.6									
HCM 2010 LOS			F									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	↑ ↑		ሻሻ	†	7	ሻ	^	7	ሻሻ	† †	7
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 17.3	0.0 18.4	0.0 18.2	0.0 22.1	0.0 29.6	0.0 13.5	0.0 9.9	0.0 68.4	0.0 15.7	0.0 11.1	0.0	0.0 2.7
%ile BackOfQ(50%),veh/ln	210.1	152.8	159.1	189.0	191.4	63.4	158.1	133.3	16.3	220.8	45.4 55.4	13.1
LnGrp Delay(d),s/veh LnGrp LOS	210.1 F	132.6 F	109.1 F	109.0 F	191.4 F	03.4 E	100.1 F	133.3 F	10.3 B	220.6 F	55.4 E	13.1 B
	г		Г	Г			г		D	Г		D
Approach Vol, veh/h		808 172.4			1407			2968 110.6			2237 76.4	
Approach Delay, s/veh Approach LOS		172.4 F			163.6 F			F			70.4 E	
Арргоасті 103		Г			Г			Г			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+l1), 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	nt turn ty	pe.										

Cumulative AM.syn Hexagon

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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	ሻሻ	77	† †			† †	
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	0.00	0.00	3725	
Grp Volume(v), veh/h	1024	619	1475	0	0	1285	
, ,			1770			1770	
Grp Sat Flow(s), veh/h/ln	1721	1393		0	0		
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	1050	0.00	0.00	1050	
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	С	С	В			В	
Approach Vol, veh/h	1643		1475			1285	
Approach Delay, s/veh	27.8		15.6			14.4	
Approach LOS	С		В			В	
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 (q_c+l1), 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 Cur belay			17.0 B				
HOW ZUTU LUG			D				

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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	ሻሻ	7	1122	^	†	0511
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	Ū	U	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	1003	320	0	847	1749	0
Adj No. of Lanes	2	320	0	2	1749	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	1102	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
	0.0	0.9	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh						
%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	С		В	В	
Approach Vol, veh/h	1411			847	1749	
Approach Delay, s/veh	32.8			11.2	12.8	
Approach LOS	С			В	В	
Timer	1	2	3	4	5	6
Assigned Phs	<u> </u>	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+l1), 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			В			

HCM Control Delay

HCM Lane LOS

HCM 95th-tile Q

Movement	Intersection												
Movement		h28.3											
Movement													
Traffic Vol, veh/h 39 408 58 115 532 45 74 127 90													
Traffic Vol, veh/h 39 408 58 115 532 45 74 127 90 38 Future Vol, veh/h 39 408 58 115 532 45 74 127 90 38 Peak Hour Factor 1.00 <t< td=""><td>Movement</td><td>EBL</td><td>EBT</td><td>EBR</td><td>WBL</td><td>WBT</td><td>WBR</td><td>NBL</td><td>NBT</td><td>NBR</td><td>SB</td><td>L</td><td>L SBT</td></t<>	Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SB	L	L SBT
Traffic Vol, veh/h 39 408 58 115 532 45 74 127 90 30 Future Vol, veh/h 39 408 58 115 532 45 74 127 90 30 Peak Hour Factor 1.00 <t< td=""><td>Lane Configurations</td><td></td><td>र्सीन</td><td></td><td></td><td>414</td><td></td><td></td><td>4</td><td></td><td></td><td></td><td>4</td></t<>	Lane Configurations		र्सीन			414			4				4
Peak Hour Factor		39	408	58	115	532	45	74	127	90	30		145
Heavy Vehicles, % 2 2 2 2 2 2 2 2 2	Future Vol, veh/h	39	408	58	115	532	45	74	127	90	30		145
Mvmt Flow 39 408 58 115 532 45 74 127 90 30 Number of Lanes 0 2 0 0 2 0 0 1 0 0 Approach EB WB BB SB NB SB Opposing Approach WB EB SB NB SB NB Conflicting Approach Left SB NB BB EB WB Conflicting Lanes Left 1 1 2 2 2 Conflicting Lanes Right 1 1 2 2 2 2 Conflicting Lanes Right 1 1 2	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
Number of Lanes 0	Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2		2
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 RighNB 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 EBLn2WBLn1WBLn2 SBLn1 VOI Left, % 25% 16% 0% 30% 0% 12% 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 Stop Stop	Mvmt Flow	39	408	58	115	532	45	74	127	90	30		145
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 RighNB 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 EBLn2WBLn1WBLn2 SBLn1 Vol Left, W 25% 16% 0% 30% 0% 12% 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 Stop Stop	Number of Lanes	0	2	0	0	2	0	0	1	0	0		1
Opposing Lanes 2 2 1 1 Conflicting Approach Left SB NB EB WB Conflicting Lanes Left 1 1 2 2 Conflicting Approach RighNB 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 EBLn2WBLn1WBLn2 SBLn1 Vol Left, W 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 Stop Traffic Vol by Lane 291 243 262 381 311 258 LT Vol 74 39 0 115 0 30 </td <td>Approach</td> <td>EB</td> <td></td> <td></td> <td>WB</td> <td></td> <td></td> <td>NB</td> <td></td> <td></td> <td>SB</td> <td></td> <td></td>	Approach	EB			WB			NB			SB		
Conflicting Approach Left SB NB EB WB Conflicting Lanes Left 1 1 2 2 2 Conflicting Approach RighNB SB WB EB Conflicting Lanes Right 1 1 1 2 2 2 HCM Control Delay 21.9 36.5 25.2 22.3 HCM LOS C E D C Lane NBLn1 EBLn1 EBLn2WBLn1WBLn2 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	Opposing Approach	WB			EB			SB			NB		
Conflicting Lanes Left 1 1 1 2 2 2 Conflicting Approach RighNB SB WB EB Conflicting Lanes Right 1 1 1 2 2 2 HCM Control Delay 21.9 36.5 25.2 22.3 HCM LOS C E D C Lane NBLn1 EBLn1 EBLn2WBLn1WBLn2 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	Opposing Lanes	2			2			1			1		
Conflicting Approach RighNB Conflicting Lanes Right 1 1 2 2 2 HCM Control Delay 21.9 36.5 25.2 22.3 HCM LOS C E D D C Lane NBLn1 EBLn1 EBLn2WBLn1WBLn2 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	Conflicting Approach Le	eft SB			NB			EB			WB		
Conflicting Lanes Right 1 1 1 2 2 2.3 HCM Control Delay 21.9 36.5 25.2 22.3 HCM LOS C E D D C Lane NBLn1 EBLn1 EBLn2WBLn1WBLn2 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 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	Conflicting Lanes Left	1			1			2			2		
HCM Control Delay 21.9 36.5 25.2 22.3 HCM LOS C E D C Cane	Conflicting Approach Ri	ghtNB			SB			WB			EB		
Lane	Conflicting Lanes Right	1			1			2			2		
Lane NBLn1 EBLn1 EBLn2WBLn1WBLn2 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 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 2 2 Degree of Util (X) 0.653 0.566 0.592 0.866 0.684 0.588 <	HCM Control Delay	21.9			36.5			25.2			22.3		
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 2 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 8.17	HCM LOS	С			Ε			D			С		
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 8.17													
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	Lane	N	NBLn1 I	EBLn1	EBLn2V	VBLn1\	VBLn2	SBLn1					
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 2 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 Cap 448 430 443 442 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>													
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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													
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													
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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 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													
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 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													
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 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													
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				•		•	•						
Convergence, Y/N 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		d)											
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 Lane V/C Ratio 0.65 0.565 0.591 0.862 0.681 0.585													
HOM Control Dolor 05 0 01 / 00 1 44 0 0/ 0 00 0			0.65		0.591		0.681						

Cumulative AM.syn
Hexagon
Synchro 10 Report
12/14/2018

22.3

C

3.7

D

5.1

25.2 21.6 22.1 44.9 26.2

3.7

C E

8.8

D

4.6

С

3.4

Intersection												
Int Delay, s/veh	19											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4TÞ			4T>			4			4	
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 M	lajor1		N	Major2		N	/linor1		ı	Minor2		
Conflicting Flow All	593	0	0	898	0	0	1286	1624	482	1168	1600	312
Stage 1	593	-	U	070	-	-	1015	1024	462	582	582	312
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	4.14	-	-	4.14	-	-	6.54	5.54	0.94	6.54	5.54	0.94
Critical Hdwy Stg 2	-	<u>-</u>	<u>-</u>	-	-	-	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	717	-	-	132	-	-	255	314	- 550	466	497	- 004
Stage 2			_	_			712	484	-	463	313	_
Platoon blocked, %			_		_	_	112	707		100	313	
Mov Cap-1 Maneuver	954	_	_	742	_	_	91	85	512	112	87	666
Mov Cap-1 Maneuver	-	_	_	- 172	_	_	91	85	- 512	112	87	-
Stage 1	_	_	_	_	_	_	220	272	_	397	476	-
Stage 2	_	_	_	_	_	_	602	464	_	362	271	_
Jugo Z							002	107		502	<i>-11</i>	
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			0.2			27.4			155.5		
HCM LOS							D			F		
Minor Lane/Major Mvmt	I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1			
Capacity (veh/h)		210	954			742	-		179			
HCM Lane V/C Ratio		0.238		_		0.011	_		1.117			
HCM Control Delay (s)		27.4	9	0.5	_	9.9	0.1		155.5			
HCM Lane LOS		D	Á	Α	_	Α	A	_	F			
HCM 95th %tile Q(veh)		0.9	0.2	-	-	0	-	-	10.1			
		3.7	3,2						. 5. 1			

Intersection												
Int Delay, s/veh	3.6											
		EDT	EDD	MDI	WET	MDD	NDI	NDT	NDD	CDI	CDT	CDD
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	00	70	4	-	40	4	70	•	♣	•
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	e, # -	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 I	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	7.12	-		7.12	_	-	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-		2.218	-	-	3.518		3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1432	-	-	1469	-	-	563	540	948	529	530	896
•	1432	-	-	1407	-	-	901	808	940	715	670	070
Stage 1 Stage 2	-	-	-	-	-		716	670		858	797	-
Platoon blocked, %	-	-	-		-	-	/ 10	070	-	ბებ	191	-
	1/27	-	-	1//0	-	-	EDE	E00	044	462	500	000
Mov Cap-1 Maneuver	1427	-	-	1468	-	-	535	509	946			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							Α			В		
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SRI n1			
Capacity (veh/h)	r. 1	847	1427	-	LDIX	1468	-	VVDIC -	482			
HCM Lane V/C Ratio		0.11				0.049	-		0.019			
		9.8	-	-								
HCM Long LOS			0	-	-	7.6	0	-				
HCM Lane LOS	١ -	Α	A	-	-	A	А	-	В			
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		4			4			4			4	
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	e,# -	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 I	Major1		1	Major2			Minor1			Minor2		
Conflicting Flow All	108	0	0	96	0	0	426	386	87	399	395	108
Stage 1	100	-	-	70	-	-	100	100	-	285	285	100
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	- 1.12	_	_	- 1.12	_	_	6.12	5.52	- 0.22	6.12	5.52	- 0.22
Critical Hdwy Stg 2	_	-	-	_	_	-	6.12	5.52	_	6.12	5.52	_
Follow-up Hdwy	2.218	-	_	2.218	_	_	3.518		3.318		4.018	3.318
Pot Cap-1 Maneuver	1483	-	-	1498	-	-	539	548	971	561	542	946
Stage 1	00	-	-	, 0	-	-	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	-
Annroach	ED			MD			MD			SB		
Approach	EB			WB			NB					
HCM LOS	0.5			3.5			10.8			12.1		
HCM LOS							В			В		
Minor Lane/Major Mvm	nt N	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		В	Α	Α	-	Α	Α	-	В			
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		4			4			4			4	
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	2,# -	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		1	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	4.12	_	_	7.12	_	_	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 2	_	_	_	_	_	_	6.12	5.52	_	6.12	5.52	_
Follow-up Hdwy	2.218	_	_	2.218	-	_	3.518		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, %		_	_		_	_	3,3			301	300	
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	-
g												
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.7			2			10.4			11.1		
HCM LOS	0.1			Z			10.4 B			В		
TIGIVI EUS							ט			ט		
Minor Lang/Major Mum	\t !	MDI 51	EDI	EDT	EDD	WDI	WDT	WBR S	CDI n1			
Minor Lane/Major Mvm	it l	NBLn1	EBL	EBT	EBR	WBL	WBT	WBK:				
Capacity (veh/h)		699	1391	-		1503	-	-	609			
HCM Cantral Dalay (a)			0.007	-	-	0.043	-	-	0.03			
HCM Control Delay (s)		10.4	7.6	0	-	7.5	0	-	11.1			
HCM Lane LOS		В	A	Α	-	A	А	-	В			
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	1			4	¥	
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
Storage Length	_	-	-	-	0	-
Veh in Median Storag	e,# 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
IVIVIIII I IUW	103	2	30	02	Z	150
Major/Minor	Major1	ľ	Major2	1	Vinor1	
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 1 Maneuver		_	1400	_	668	-
Stage 1				-	861	_
Stage 2	_	_	_		863	_
Staye 2	-	-	-	-	003	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.4		10.1	
HCM LOS					В	
Minor Lane/Major Mvr	nt l	NBLn1	EBT	EBR	WBL	WBT
	nt I					
Capacity (veh/h)		872	-		1406	-
HCM Lane V/C Ratio		0.183	-		0.027	-
HCM Control Delay (s)	10.1	-	-		0
HCM Lane LOS		В	-	-	A	Α
HCM 95th %tile Q(veh	1)	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		4			4			4			4	
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	2,# -	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 I	Major1		1	Major2		ı	Minor1		1	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							В			Α		
Minor Lane/Major Mvm	nt ľ	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR :	SBLn1			
Capacity (veh/h)		587	1438	-	-	1511	-	-	820			
HCM Lane V/C Ratio		0.022		-	-	0.001	-	_	0.107			
HCM Control Delay (s)		11.3	7.7	0	-	7.4	0	-	9.9			
HCM Lane LOS		В	Α	A	-	Α	A	-	Α			
HCM 95th %tile Q(veh))	0.1	0.2	-	-	0	-	-	0.4			

Intersection		
Intersection Delay, s/veh	9.1	
Intersection LOS	А	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	LDIX	****	4	WER	NDL	4	HEIL	ODL	4	ODIN
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	А			Α			Α			Α		

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	А	Α	Α	Α	
HCM 95th-tile Q	0.8	0.3	0.5	1.3	

Intersection						
Intersection Delay, s/ve	h38.5					
Intersection LOS	Е					

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 L	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach R	RightNB			SB			WB			EB			
Conflicting Lanes Right	t 1			1			1			1			
HCM Control Delay	16.6			22.9			24.3			64.2			
HCM LOS	С			С			С			F			

Lane	NBLn1	EBLn1\	VBLn1	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	С	С	С	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		4			4			4			4	
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	2,# -	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 N	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							Α			Α		
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBI n1			
Capacity (veh/h)	. 1		1595	-		1499		· ·				
HCM Lane V/C Ratio		0.107		-		0.003	-		-			
HCM Control Delay (s)		9.5	7.3	0	-	7.4	0	_	0			
HCM Lane LOS		7.5 A	7.3 A	A	-	7.4 A	A	-	A			
HCM 95th %tile Q(veh))	0.4	0	-	_	0	-	_	-			
110W 75W 70W Q(VCH)		U.7										

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	¥	LDIN	IVDL	4	<u> </u>	7
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	e,# 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
WWW. LIOW	.,	21	21	770	011	02
Major/Minor	Minor2		Major1	Ν	/lajor2	
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		3.318	2 210		_	_
	81	363	751	-		-
Pot Cap-1 Maneuver			751	-	-	-
Stage 1	422	-	-	-	-	-
Stage 2	350	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver		362	749	-	-	-
Mov Cap-2 Maneuver	258	-	-	-	-	-
Stage 1	395	-	-	-	-	-
Stage 2	349	-	-	-	-	-
J.						
			A LE		0.5	
Approach	EB		NB		SB	
HCM Control Delay, s	21.7		0.2		0	
HCM LOS	С					
Minor Long (Mariana)	-1	NDI	NDT	EDI 4	CDT	CDD
Minor Lane/Major Mvn	nt	NBL		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		Α	Α	С	-	-
	,)	0.1	_	1	_	-
HCM 95th %tile Q(veh	1)	0.1				

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Movement	₩BL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	WDL	WDI	† ↑	NUIL	JUL	<u>361</u>
Traffic Volume (veh/h)	536	41	453	624	0	721
Future Volume (veh/h)	536	41	453	624	0	721
Number	7	14	453	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	4.00	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
	8.6		2.7			
Q Serve(g_s), s		0.0		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	10/0	0.00	0.00	10/0
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	12.0 B	0.0	Α	0.0	0.0	7.0 A
Approach Vol, veh/h	578		453			721
Approach LOS	12.0		6.9			7.8
Approach LOS	В		А			А
Timer	1	2	3	4	5	6
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+l1), s		4.7		10.6		6.6
Green Ext Time (p_c), s		2.7		0.1		3.4
		Z.1		U. I		3.4
Intersection Summary						
HCM 2010 Ctrl Delay			9.0			
HCM 2010 LOS			Α			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		41∱	7		4î			4	7		4	7
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	.,.0	1.00	0.05	0.0	0.36	0.51	0.0	1.00	0.18	0.0	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	С	В	С	0.0	D	D	0.0	C	D	0.0	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			C 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		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									

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	"	<u> </u>	↑	7	ኝ	7	
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	
nitial 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	
2 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	4054	000	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	
Jpstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Jniform Delay (d), s/veh	51.4	8.2	27.5	27.0	46.7	25.5	
ncr Delay (d2), s/veh	18.5	0.4	3.3	3.5	15.5	0.5	
nitial 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	
_nGrp Delay(d),s/veh	69.9	8.7	30.7	30.4	62.2	25.9	
_nGrp LOS	E	Α	С	С	E	С	
Approach Vol, veh/h		612	895		825		
Approach Delay, s/veh		41.1	30.6		44.7		
Approach LOS		D	С		D		
imer	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	
Wax Q Clear Time (g_c+l1), s		9.8		32.4	25.4	28.7	
Green Ext Time (p_c), s		1.2		1.8	0.3	2.9	
u = <i>i</i>		1.2		1.0	0.5	۷.7	
ntersection Summary			20.0				
HCM 2010 Ctrl Delay			38.3				
HCM 2010 LOS			D				
Notes							
HCM 2010 computational en	gine requ	ires equa	al clearan	ce times t	or the ph	ases cros	ssing the barrier.

Cumulative PM.syn Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4	7		4T }		۲	∱ 1≽	
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	Е			D		В	Е		Е	С	Α	А
Approach Vol, veh/h		138			252			791			1089	
Approach Delay, s/veh		62.6			27.8			63.6			9.2	
Approach LOS		Е			С			Е			А	
•	1		ว	1		4	7					
Timer		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		8.0				
Intersection Summary												
HCM 2010 Ctrl Delay			33.5									
HCM 2010 LOS			С									
Notes												
* HCM 2010 computational en	gine req	uires equa	al clearan	ce times	for the ph	ases cros	ssing the	barrier.				

Cumulative PM.syn Hexagon

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Movement		— >	WDT			CDD	
Movement Lang Configurations	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	١٦٦	↑ ↑↑	↑↑	227	<u>ነ</u>	77 7	
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	5.5	23.3	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	Α	С	D	D	В	
Approach Vol, veh/h		1652	1781		992		
Approach Delay, s/veh		18.8	36.4		21.5		
Approach LOS		В	D		С		
Timer	1	2	3	4	5	6	
Assigned Phs	1	2				6	
Phs Duration (G+Y+Rc), s	19.7	30.3				50.0	
Change Period (Y+Rc), s	4.0	4.0				4.0	
Max Green Setting (Gmax), s	16.0	26.0				4.0	
Max Q Clear Time (g_c+l1), s	15.5	25.5				7.3	
Green Ext Time (p_c), s	0.2	0.4				7.9	
Intersection Summary							
HCM 2010 Ctrl Delay			26.5				_
HCM 2010 LOS			С				

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ř	र्स	7	ሻ	4î		ሻ	† †	7	۲	† †	7
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	C
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	В	А	E	В	В
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			В	
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 balance	ing amon	g the lan	es for turi	ning move	ement.							

Cumulative PM.syn Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	Ŋ	†	7	۲	f)			4	7		4	
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(q_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	С	В	В	С		Α	В		В	В		
Approach Vol, veh/h		527			525			477			212	
Approach Delay, s/veh		14.0			13.2			13.4			12.5	
Approach LOS		В			В			В			В	
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+l1), 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			В									

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Movement	EBL	EBT	EBR	₩BL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	↑ ↑		ነ	†	7	ሻ	ተተጉ		ሻ	^	7
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+l1), 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									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	**	∱ 1>		ሻሻ	†	7	ሻ	^	7	ሻሻ	† †	7
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	С	F	D	В	E	F	В
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 rigi	nt turn ty	pe.										

Cumulative PM.syn Hexagon

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Movement	₩BL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	ሻሻ	777	† †	NDIX	JDL	1	
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	Ü	1.00	1.00	0	
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	0.00	0.00	3725	
Grp Volume(v), veh/h	544	258	2269	0	0	869	
	1721	1393	1770	0	0	1770	
Grp Sat Flow(s),veh/h/ln Q Serve(q_s), s	11.9	6.5	44.2	0.0	0.0	8.1	
·0— /	11.9	6.5	44.2	0.0	0.0	8.1	
Cycle Q Clear(g_c), s	1.00	1.00	44.2	0.00	0.00	Ö. I	
Prop In Lane	707	573	2445	0.00	0.00	2445	
Lane Grp Cap(c), veh/h V/C Ratio(X)	0.77	0.45	0.93	0.00	0.00	0.36	
	1076	871	2445	0.00	0.00	2445	
Avail Cap(c_a), veh/h 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	<u>C</u>	С	В			A	
Approach Vol, veh/h	802		2269			869	
Approach Delay, s/veh	30.7		14.5			5.5	
Approach LOS	С		В			А	
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 (q_c+l1), 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			В				

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	•	•	1	†	¥	*
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	44	7		^	† †	
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	0.00	3725	3725	0.00
Grp Volume(v), veh/h	1567	401	0	984	944	0
Grp Sat Flow(s), veh/h/ln	1721	1583	0	1770	1770	0
1 1	34.1	13.8	0.0	18.3	8.5	0.0
Q Serve(g_s), s		13.8	0.0	18.3	8.5	0.0
Cycle Q Clear(g_c), s	34.1			18.3	8.5	
Prop In Lane	1.00	1.00	0.00	1 4 4 1	1 1 1 1	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	С	В		С	Α	
Approach Vol, veh/h	1968			984	944	
Approach Delay, s/veh	24.4			22.1	7.2	
Approach LOS	С			С	Α	
			0			,
Timer	1	2	3	4	5	6
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+l1), 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			В			
TIOW ZOTO LOG			D			

Intersection					
Intersection Delay, s/v	eh14.1				
Intersection LOS	В				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		414			47>			4			4		
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 L	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			2			2			
Conflicting Approach R	igh N B			SB			WB			EB			
Conflicting Lanes Right	t 1			1			2			2			
HCM Control Delay	15.5			13.3			12.9			12.6			
HCM LOS	С			В			В			В			

Lane	NBLn1	EBLn1	EBLn ₂ V	VBLn ₁ V	VBLn2	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)			0.505	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	В	С	С	В	В	В	
HCM 95th-tile Q	1.5	3	2.8	1.9	1.4	1.2	

Intersection												
Intersection Int Delay, s/veh	5.7											
ini Deiay, S/ven	5.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		414			414			4			4	
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 M	ajor1			Major2		N	/linor1		Λ	/linor2		
Conflicting Flow All	765	0	0	897	0	0	1484	1909	482	1452	1891	398
Stage 1	705	-	U	071	-	-	1104	1104	402	778	778	390
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	T. 14	-		7.14	_	-	6.54	5.54	0.74	6.54	5.54	0.74
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	-		_	- 100	_	_	225	285	-	355	405	- 001
Stage 2	_	_	_	_	_	_	614	393	_	410	282	_
Platoon blocked, %		_	_		_	_	017	070		110	202	
Mov Cap-1 Maneuver	822	_	_	743	-	_	56	46	512	64	47	585
Mov Cap-2 Maneuver	-	-	_	- 10	-	_	56	46	- 512	64	47	-
Stage 1	_	_	_	_	_	_	165	209	_	257	376	-
Stage 2	_	_	_	_	_	_	498	365	_	285	206	_
Olago Z							170	303		200	200	
	ED			MA						65		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2			0.4			34.7			62.7		
HCM LOS							D			F		
Minor Lane/Major Mvmt	1	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1			
Capacity (veh/h)		145	822	-	-	743	-	-	176			
HCM Lane V/C Ratio		0.166		_	_	0.027	-	_	0.699			
HCM Control Delay (s)		34.7	10	1	_	10	0.2	-				
HCM Lane LOS		D	В	Ā	_	A	A	_	F			
HCM 95th %tile Q(veh)		0.6	0.5	-	-	0.1	-	-	4.2			
/ 54. / 54. 64. 64. 64. 64. 64. 64. 64. 64. 64. 6		3.0	3.0			3.1						

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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		
	107	0			0			217			าาา	107
Conflicting Flow All		0	0	96	0	0	214	217	91	225	222	
Stage 1	-	-	-	-	-	-	92	92	-	124	124	-
Stage 2	- / 1 1 2	-	-	112	-	-	122	125	- 4 22	101	98	4.22
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	2 210	-	-	2 210	-	-	6.12	5.52	2 210	6.12	5.52	2 210
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, %	1.470	-	-	1407	-	-	727	(71	0/5	710	(70	0.42
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			Α		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SRI n1			
	it l											
Capacity (veh/h)		824	1479	-		1497	-	-	740			
HCM Cantral Dalay (a)		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	Α	-	A	А	-	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		4			4			4			4	
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 1	Major1		1	Major2		ı	Minor1		1	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	- 1.12	_	_	- 1.12	_	_	6.12	5.52	- 0.22	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		3.518	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, %		-	_		_	-				3	50.	
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	-
y= -												
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			0.9			9.8			10.1		
HCM LOS	•						A			В		
Minor Lane/Major Mvm	nt N	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		Α.	Α	A	_	Α.	A	_	В			
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		4			4			4			4	
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	2,# -	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 I	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							Α			Α		
Minor Lane/Major Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		846	1537	-	-	1553	-	-	862			
HCM Lane V/C Ratio			0.001	-	-	0.01	-	_	0.013			
HCM Control Delay (s)		9.4	7.3	0	-	7.3	0	_	9.2			
HCM Lane LOS		Α	А	A	-	А	A	-	Α			
HCM 95th %tile Q(veh))	0.1	0	-	-	0	-	-	0			

Intersection						
Int Delay, s/veh	3.4					
	CDT	EDD	\\/DI	\M/DT	NDI	NIDD
	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	}		.04	€ 10	Y	
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
	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
Mymt Flow	65	0	21	49	3	54
WWITH TOW	00	U	21	77	3	01
Major/Minor Ma	ajor1	ľ	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	
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	-
J						
Annroach	ED		MD		ND	
Approach	EB		WB		NB	
HCM Control Delay, s	0		2.2		8.9	
HCM LOS					Α	
Minor Lane/Major Mvmt	N	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	<u> </u>	982			1529	1101
Capacity (VEII/II)			-		0.014	-
		V VE V				-
HCM Lane V/C Ratio		0.058	-			
HCM Lane V/C Ratio HCM Control Delay (s)		8.9	-	-	7.4	0
HCM Lane V/C Ratio						

Note Section Section
Movement EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL SBT SBR Lane Configurations
Traffic Vol, veh/h
Traffic Vol, veh/h
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
Conflicting Peds, #/hr 2
Sign Control Free RTH Free RTHE None - None <t< td=""></t<>
RT Channelized - None 2 Donath None <th< td=""></th<>
Storage Length -
Weh in Median Storage, # 0 - - 0 100
Grade, % - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 0 100
Peak Hour Factor 100
Heavy Vehicles, % 2 3 41 Major/Minor Major Minor
Mymt 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 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52
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 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.5
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 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12
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 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12
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 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12
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 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 </td
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<
Critical Hdwy 4.12 - 4.12 - 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - <
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, % - - - - 654 645 1004 698 643 979
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, % - - - 552 - 664 981 Mov Cap-1 Maneuver 1515 - 1537 - 654 645 1004 698 643 979
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, % 654 645 1004 698 643 979
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, % - - - - - 654 645 1004 698 643 979
Stage 1 - - - - - 861 779 - 920 822 - Stage 2 - - - - 896 820 - 858 776 - Platoon blocked, % -
Stage 2 - - - - - 896 820 - 858 776 - Platoon blocked, % -
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
Tion 200
Missales Maiss Marst NIDL of EDI EDI EDI EDI UDI WIDT WIDD ODI 4
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	В	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					4			4			4	
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	А			Α			Α			В		

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	А	Α	Α	В	
HCM 95th-tile Q	0.8	0.3	0.6	2.4	

Intersection						
Intersection Delay, s/v	e h 45.5					
Intersection LOS	Е					

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 L	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach R	igh N B			SB			WB			EB			
Conflicting Lanes Right	t 1			1			1			1			
HCM Control Delay	15.6			14.4			22.9			78			
HCM LOS	С			В			С			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	С	С	В	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		4			4			4			4	
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	e,# -	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 I	Major1		[Major2		ľ	Minor1		1	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 Mvm	nt I	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		904	1606	_	_	1478	_	_	_			
HCM Lane V/C Ratio			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	₩ W	LDI	NDL	ND1 €	<u>301</u>	JDK ř
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	e, # 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
D. 4. 1. 1D. 41	N4' 0				4 ' 0	
	Minor2		Major1		/lajor2	
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, %	0,,			_	_	_
Mov Cap-1 Maneuver	104	404	745	_	_	_
Mov Cap-1 Maneuver	298	404	743	-	-	
Stage 1	446	-	-	-	-	-
		-	-	-		•
Stage 2	398	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	19.5		0.1		0	
HCM LOS	C		5.1			
.13111 200						
				EDI 1	05=	055
Minor Lane/Major Mvn	nt	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		Α	Α	С	-	-
HCM 95th %tile Q(veh)	0	-	0.9	-	-

	•	•	†	<u> </u>		
Movement	₩BL	WBR	NBT	NBR	SBL	▼ SBT
Lane Configurations	WDL	WDR	ND ↑ }	NDK	JDL	<u>361</u>
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
. ,	1.00	1.00	U	1.00	1.00	U
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj						
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(q_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	۷.,	0.00	0.00	7.0
Lane Grp Cap(c), veh/h	735	0.03	1333	0.00	0.00	1333
V/C Ratio(X)	0.92	0.00	0.31	0.00	0.00	0.76
	832	0.00	1518	0.00	0.00	1518
Avail Cap(c_a), veh/h						
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	С		Α			В
Approach Vol, veh/h	673		409			1009
Approach Delay, s/veh	22.8		8.1			11.9
Approach LOS	C		A			В
Timer	1	2	3	4	5	6
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+l1), 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			В			

	•	_	_	_	—	•	•	<u></u>	<u> </u>	<u> </u>	1	1
Movement EE	31	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<i>)</i>	44	Į,	VVDL	413	WDIX	NDL	4	T T	JDL	4	7
	42	379	529	33	482	136	166	288	23	76	410	19
, ,	42 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
· /·		U	0.90	1.00	U	0.90	1.00	U	0.97	1.00	U	0.97
, _, ,		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj 1.0									1863			
Adj Sat Flow, veh/h/ln 190		1863	1863 529	1900 33	1863 482	1900 136	1900	1863 288	23	1900 76	1863	1863 19
	42	379					166				410	
Adj No. of Lanes	0	2	1	0	2	1.00	0	1	1	0	1	1
Peak Hour Factor 1.0		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
	95	752	897	63	743	212	186	322	425	85	457	450
Arrive On Green 0.3		0.32	0.32	0.32	0.32	0.32	0.28	0.28	0.28	0.29	0.29	0.29
·	69	2335	1421	87	2308	659	669	1160	1533	289	1559	1535
. , ,	54	267	529	343	0	308	454	0	23	486	0	19
Grp Sat Flow(s), veh/h/ln 89		1610	1421	1559	0	1494	1829	0	1533	1848	0	1535
\ 0 — /·	.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	3.7	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 0.2			1.00	0.10		0.44	0.37		1.00	0.16		1.00
Lane Grp Cap(c), veh/h 32	29	518	897	537	0	481	508	0	425	542	0	450
V/C Ratio(X) 0.4	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 32	29	518	897	537	0	481	654	0	548	694	0	576
HCM Platoon Ratio 1.0	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) 1.0	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
•	.7	3.6	2.8	5.7	0.0	6.4	12.4	0.0	0.1	12.1	0.0	0.0
	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/ln4		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		34.5	17.1	37.9	0.0	38.8	51.2	0.0	29.7	50.0	0.0	28.3
1 317	D	С	В	D		D	D		С	D		С
Approach Vol, veh/h	_	950			651			477			505	
Approach Delay, s/veh		25.1			38.3			50.2			49.2	
Approach LOS		23.1 C			30.3 D			D			47.2 D	
•		U			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+l1)		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 CIT Delay			37.8 D									
HOW ZUTU LUS			D									

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Movement	EBL	EBT	WBT	WBR	SBL	SBR						
Lane Configurations	*	†	†	7		7						
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						
nitial 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/lr		1863	1863	1533	1774	1583						
2 Serve(g_s), s	26.9	13.0	11.4	18.1	36.6	14.7						
Cycle Q Clear(q_c), s	26.9	13.0	11.4	18.1	36.6	14.7						
Prop In Lane	1.00	10.0	11.7	1.00	1.00	1.00						
_ane Grp Cap(c), veh/h		1165	681	1052	551	855						
//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						
Jpstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00						
Uniform Delay (d), s/vel		11.6	30.0	9.8	43.7	17.2						
ncr Delay (d2), s/veh	14.3	0.8	1.3	1.3	11.9	0.2						
nitial Q Delay(d3),s/veh		0.0	0.0	0.0	0.0	0.0						
%ile BackOfQ(50%),vel		6.9	6.1	15.4	19.7	16.4						
_nGrp Delay(d),s/veh	63.5	12.4	31.3	11.1	55.6	17.4						
nGrp LOS	E	В	C	В	E	В						
Approach Vol, veh/h	<u> </u>	765	683		822							
Approach Delay, s/veh		37.4	17.7		41.2							
Approach LOS		37.4 D	В		41.2 D							
•		U			U							
Timer	1	2	3	4	5	6	7 8					
Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc)		86.0		44.8	34.0	52.0						
Change Period (Y+Rc),		* 4.2		* 4.2	4.0	* 4.2						
Max Green Setting (Gm		* 82		* 60	45.0	* 33						
Max Q Clear Time (g_c		15.0		38.6	28.9	20.1						
Green Ext Time (p_c), s	S	1.6		2.0	1.0	1.6						
ntersection Summary												
HCM 2010 Ctrl Delay			32.9									
HCM 2010 LOS			С									
Notes												
HCM 2010 computation	onal en	gine red	quires e	equal cle	earance	times f	or the phases of	crossing t	he barrie	r.		

Cumulative+P AM.syn Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4	7		414		ሻ	∱ 1≽	
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/l		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/ł	า 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/ve	h 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/ve	h 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%),ve	h/ln7.9	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	С			С		Α	D		D	С	В	В
Approach Vol, veh/h		341			237			890			1265	
Approach Delay, s/veh		33.2			12.6			42.1			14.7	
Approach LOS		С			В			D			В	
Гimer	1	2	3	4	5	6	7	8				
Assigned Phs	<u>'</u>	2	<u> </u>	4	5	6	<u>'</u>	8				
Assigned Firs Phs Duration (G+Y+Ro	1 0	51.9		28.1	24.4	27.4		28.1				
Change Period (Y+Rc)		4.6		4.6	4.6	* 4.1		4.6				
Max Green Setting (Gr		43.8		27.0	14.9	* 25		27.0				
Max Q Clear Time (g_c		14.1		22.6	13.7	21.4		4.6				
Green Ext Time (p_c),		7.4		0.8	0.1	1.9		0.7				
4 – <i>7</i>	J	7.7		0.0	0.1	1.7		0.7				
Intersection Summary			25.7									
HCM 2010 Ctrl Delay			25.7									
HCM 2010 LOS			С									
Notes												
* HCM 2010 computati	onal en	gine red	quires e	qual cle	earance	times f	or the p	hases	crossin	g the ba	arrier.	

Cumulative+P AM.syn Hexagon

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Movement	EBL	EBT	WBT	WBR	SBL	SBR				
Lane Configurations	ሻሻ	† ††	†††		ሻ	777				
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/lr		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	10.2	17.1	0.70	1.00	1.00				
		2735	1006	477	638	1532				
Lane Grp Cap(c), veh/h V/C Ratio(X)	0.88	0.62	0.87	0.87	0.89	0.55				
, ,		2735	1006	477	682	1600				
Avail Cap(c_a), veh/h	661									
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		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				
%ile BackOfQ(50%),vel		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	В	D	D	D	В				
Approach Vol, veh/h		2282	1292		1416					
Approach Delay, s/veh		21.4	39.2		22.0					
Approach LOS		С	D		С					
Timer	1	2	3	4	5	6	7	8		
Assigned Phs	1	2				6		8		
Phs Duration (G+Y+Rc)	•	27.2				46.0		32.1		
Change Period (Y+Rc),		4.0				4.0		4.0		
Max Green Setting (Gm		23.0				42.0		30.0		
Max Q Clear Time (g_c		21.2				20.2		25.7		
Green Ext Time (p_c), s		1.3				13.1		2.4		
	, 0.1	1.5				10.1		۷.٦		
Intersection Summary			01.0							
HCM 2010 Ctrl Delay			26.2							
HCM 2010 LOS			С							

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	۲	4	7	*	1→		*	^	7	*	^	7	
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/lr		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		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		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 9.5	0.0	0.0	0.0	0.0 2.0	0.0	0.0	1.4	23.6	18.0	
%ile BackOfQ(50%),vel LnGrp Delay(d),s/veh	72.3	0.0	72.5	73.2	0.0	75.3	24.3	0.1	0.0	91.1	51.8	26.4	
LnGrp LOS	72.3 E	0.0	72.5 E	73.2 E	0.0	75.5 E	24.3 C	0.5 A	Α	91.1 F	D D	20.4 C	
Approach Vol, veh/h	<u> </u>	717	<u> </u>	<u> </u>	73	<u> </u>		964	<u> </u>	ı	1589		
Approach Delay, s/veh		72.4			74.4			2.7			45.3		
Approach LOS		72.4 E			74.4 E			2. <i>1</i>			40.5 D		
Approach LOS											D		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2		4	5	6		8					
Phs Duration (G+Y+Rc)				13.6	51.5	64.8		30.2					
Change Period (Y+Rc),		4.6		* 4.2	4.6	* 4.6		4.0					
Max Green Setting (Gm		73.2		* 27	16.0	* 63		37.0					
Max Q Clear Time (g_c-		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 I	balanci	ing amo	ng the	lanes fo	or turnir	ng move	ement.						

Cumulative+P AM.syn Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		†	7	ሻ	î,			सी	7		4		
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/li		1863	1526	1774	0	1836	1168	0	1530	1245	0	0	
Q Serve(q_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		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/vel		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	
%ile BackOfQ(50%),vel		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	С	В	С		В	В		В	В			
Approach Vol, veh/h		532			714			563			369		
Approach Delay, s/veh		25.5			20.7			15.1			19.4		
Approach LOS		С			С			В			В		
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),		4.0	4.0	4.0		4.0	4.0	4.0					
Max Green Setting (Gm		21.0	11.0	16.0		21.0	4.0	23.0					
Max Q Clear Time (g_c		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 pedestri	an inte	rval to b	oe less	than ph	ase ma	x greer	١.						
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Cumulative+P AM.syn Hexagon

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Movement	EBL	EBT	€BR	₩BL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	LDL Ŋ	↑ Ъ	LDK	VVDL	VVD1 ↑	WDK	NDL	↑ ↑	NDK	JDL N	<u>361</u>	JDK 7
		320	Λ					1942	115			13
Traffic Volume (veh/h)	2	320	0	321 321	365 365	233 233	0	1942	115 115	173 173	1538 1538	13
Future Volume (veh/h) Number	7	320	14	321	8	18	5	1942	12	1/3	1036	16
Initial Q (Qb), veh	0	0	0	0	5	20	0	118	0	0	0	0
	1.00	U	1.00	1.00	3	0.98	1.00	110	0.99	1.00	U	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00		1900	1863	1863		1863	1863	1900	1863	1863	1863
•	1863	1863 320		321	365	1863 233		1942	115	173	1538	
Adj Flow Rate, veh/h	2		0	321			0	1942		1/3	1038	0
Adj No. of Lanes 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	2/1	555	2 473	2	2 2450	55 55	2 191	2 2192	981
Cap, veh/h	4	444	0	341	555							
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
	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/lr		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	4	0.00	1.00		1.00	1.00	4/01	0.16	1.00	0400	1.00
Lane Grp Cap(c), veh/h		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		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	1.7	25.4	0.0	96.4	76.7	0.0	0.0	0.0
%ile BackOfQ(50%),veh		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		86.3	0.0	101.1	61.5	61.4	0.0	152.7	135.6	112.5	26.6	0.0
LnGrp LOS	<u> </u>	F		F	E	<u>E</u>		F	F	F	С	
Approach Vol, veh/h		322			919			2057			1711	
Approach Delay, s/veh		86.9			75.3			146.7			35.2	
Approach LOS		F			Ε			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)	, 24.1	98.0	39.7	23.3	0.0	122.1	4.4	58.6				
Change Period (Y+Rc),		4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Max Green Setting (Gm		94.0	46.0	23.0	4.0		4.0	65.0				
Max Q Clear Time (g_c-		62.0	35.0	18.5	0.0	53.5	2.2	33.8				
Green Ext Time (p_c), s		20.6	0.7	0.8	0.0	20.1	0.0	3.3				
Intersection Summary				,,,								
			91.7									
HCM 2010 Ctrl Delay			91.7 F									
HCM 2010 LOS			Г									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	1	∱ 1>		ሻሻ	†	7	*	^	7	ሻሻ	^	7	
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/lr		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		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/vel		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		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/vel %ile BackOfQ(50%),vel		0.0	0.0	0.0 22.4	0.0 29.9	0.0	0.0 9.9	0.0 68.4	15.8	11.1	45.4	2.7	
LnGrp Delay(d),s/veh		154.0	160.2	192.0	193.6	63.4	158.1	133.3	16.4	220.8	55.4	13.1	
LnGrp LOS	210.1 F	134.0 F	100.2 F	192.0 F	193.0 F	03.4 E	136.1 F	133.3 F	10.4 B	220.6 F	55.4 E	13.1 B	
Approach Vol, veh/h	<u> </u>	810	<u> </u>	<u> </u>	1413		<u> </u>	2973	D	<u> </u>	2237	D	
Approach Delay, s/veh		173.2			165.8			110.4			76.4		
Approach LOS		173.2 F			F			F			70.4 E		
Appluacii LU3					- 1						L		
Timer	1	2	3	4	5	6	7	8					
Assigned Phs	1	2	3	4	5	6	7	8					
Phs Duration (G+Y+Rc)		96.0	32.0	30.0	18.0	95.0	24.0	38.0					
Change Period (Y+Rc),		4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Max Green Setting (Gm		92.0	28.0	26.0	14.0	91.0	20.0	34.0					
Max Q Clear Time (g_c		94.0	30.0	28.0	16.0	87.3	22.0	36.0					
Green Ext Time (p_c), s	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	s to righ	nt turn t	vne										
oser approved chariges	s to rigi	it tufff t	yp c .										

Cumulative+P AM.syn Hexagon

	•	•	†	~	<u> </u>	+			
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations	ሻሻ	77	^			† †			
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	0.00	0.00	3725			
	1033	619	1476	0	0	1286			
Grp Volume(v), veh/h Grp Sat Flow(s), veh/h/l		1393	1770	0	0	1770			
1 7.						20.5			
Q Serve(g_s), s	22.4	14.9	25.8	0.0	0.0				
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	1047	0.00	0.00	104/			
Lane Grp Cap(c), veh/h		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/ve		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/vel		0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),ve		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	С	С	В			В			
Approach Vol, veh/h	1652		1476			1286			
Approach Delay, s/veh	27.8		15.7			14.5			
Approach LOS	С		В			В			
	1	2		1	Е		7	0	
Timer	I	2	3	4	5	6	1	8	
Assigned Phs		2				6		8	
Phs Duration (G+Y+Rc		48.1				48.1		31.9	
Change Period (Y+Rc)		4.1				4.1		4.2	
Max Green Setting (Gn		41.9				41.9		29.8	
Max Q Clear Time (g_c		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			В						

•	•	•	•	†	 	4	
Movement EBL	EBR	ment FRI	NBL	NBT	SBT	SBR	
Lane Configurations ***	T T		HUL	↑ ↑	† †	SDIC	
Traffic Volume (veh/h) 1091	320	J	0	848	1758	0	
Future Volume (veh/h) 1091	320	, ,	0	848	1758	0	
Number 7	14	• • •	5	2	6	16	
			0	0	0		
	1.00			U	U	0	
Ped-Bike Adj(A_pbT) 1.00	1.00	,	1.00	1.00	1.00	1.00	
Parking Bus, Adj 1.00	1.00		1.00	1.00	1.00	1.00	
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	Hour Factor 1.00	1.00	1.00	1.00	1.00	
Percent Heavy Veh, % 2	2	nt Heavy Veh, % 2	0	2	2	0	
Cap, veh/h 1183	544	veh/h 1183	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/ln1721	1583		0	1770	1770	0	
Q Serve(q_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= /	0.0	11.2	30.8	0.0	
	1.00		0.00	11.2	30.0	0.00	
Prop In Lane 1.00				10/0	10/0		
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	eam Filter(I) 1.00	0.00	1.00	0.58	0.00	
Uniform Delay (d), s/veh 25.2	21.6	m Delay (d), s/veh 25.2	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/ln3.3	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	22.5 C	J 1 /	0.0	11.2 B	13.0 B	0.0	
	C						
Approach Vol, veh/h 1411		· · · · · · · · · · · · · · · · · · ·		848	1758		
Approach Delay, s/veh 32.8		<i>y</i> ·		11.2	13.0		
Approach LOS C		ach LOS (В	В		
Timer 1	2		3	4	5	6	
Assigned Phs	2	ned Phs		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+l1), s	13.2			26.4		32.8	
Green Ext Time (p_c), s	4.4	1 Ext Time (p_c), s		1.1		6.5	
Intersection Summary		ection Summary					
HCM 2010 Ctrl Delay			19.6				
HCM 2010 LOS			В				
HOW ZOTO LOS		2010 103	D				

Service Time

HCM Lane V/C Ratio

HCM Control Delay

HCM Lane LOS

HCM 95th-tile Q

6.146 6.142

25.3 21.8

С

3.5

D

4.6

Intersection													
Intersection Delay, s/ve	h28.7												
Intersection LOS	D												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		414			414			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			2			2			
Conflicting Approach Ri	ghtNB			SB			WB			EB			
Conflicting Lanes Right	1			1			2			2			
HCM Control Delay	22.1			37.2			25.3			22.4			
HCM LOS	С			Е			D			С			
Lane	N	IBLn1 I	EBLn1	EBLn2V	VBLn1V	VBLn2	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)			0.572	0.599	0.872		0.589						
Departure Headway (Ho	d)		8.395		8.198	7.938							
Convergence, Y/N		Yes	Yes	Yes	Yes	Yes	Yes						
Cap		445	430	442	444	457	439						

Cumulative+P AM.syn
Hexagon
Synchro 10 Report
01/28/2019

5.9 5.945 5.685 6.269

26.6

D

5.2

22.4

C

3.7

 $0.654\ 0.572\ 0.597\ 0.863\ 0.685\ 0.588$

С

3.8

22.4 45.9

Ε

9

Intersection												
Int Delay, s/veh	20.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		414			414			4			4	
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 M	ajor1		N	Major2		N	Minor1			Minor2		
Conflicting Flow All	594	0	0	900	0	0	1299	1637	483	1180	1613	313
Stage 1	J 74 -	-	-	-	-	-	1027	1027	403	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		
	1.1			0.2			28.3			167.3		
HCM Control Delay, s HCM LOS	1.1			0.2			28.3 D			167.3 F		
HOW LUS							U			Г		
Minor Lane/Major Mvmt		NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	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	Α	Α	-	Α	Α	-	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		4			4		.,,,,	4		002	4	02.1
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		ı	Major2		N	Minor1		1	Minor2		
Conflicting Flow All	162	0	0	131	0	0	422	423	118	463	437	163
Stage 1	102	-	U	131	-	-	117	117	110	306	306	103
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	7.12	_	_	7.12	_	_	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 2				_	_	_	6.12	5.52	_	6.12	5.52	_
Follow-up Hdwy	2.218	_	_	2.218	_	_	3.518			3.518	4.018	3.318
Pot Cap-1 Maneuver	1417	_	_	1454	-	-	542	522	934	509	513	882
Stage 1		_	_	- 101	_	_	888	799	-	704	662	- 002
Stage 2	-	-	-	-	-	-	705	662	-	845	788	-
Platoon blocked, %		-	_		-	-				5.5		
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				2.7			Α.			В		
							, ,					
Minor Lanc/Major Mun	nt I	NBLn1	EBL	EDT	EDD	\\/DI	\M/DT	WDD	SRI n1			
Minor Lane/Major Mvm	it I			EBT	EBR	WBL	WBT	WBR:				
Capacity (veh/h)		830	1412	-	-	1453	-	-	465			
HCM Control Dolay (c)		0.112	-	-	-	0.05	-	-	0.019			
HCM Control Delay (s) HCM Lane LOS		9.9	0	-	-	7.6	0	-	12.9			
HCM 95th %tile Q(veh)	A 0.4	A 0	-	-	A 0.2	A -	-	0.1			
HOW FOUT TOUTE CELVETT)	0.4	U	-	-	U.Z	-	-	U. I			

latana atta												
Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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		1	Major2		1	Minor1		- 1	Minor2		
Conflicting Flow All	119	0	0	103	0	0	444	404	94	417	413	119
Stage 1	117	-	-	100	-	-	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	- 0.22	6.12	5.52	- 0.22
Critical Hdwy Stg 2	_	_	_	_	_	_	6.12	5.52	_	6.12	5.52	_
Follow-up Hdwy	2.218	_	_	2.218	_	_	3.518		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, %		_	_		-	_		500		200		
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		
	0.5			3.3			11			12.3		
HCM Control Delay, s HCM LOS	0.3			3.3			В			12.3 B		
TIGIVI LUS							Ď			Ď		
Minor Lane/Major Mvm	nt 1	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR				
Capacity (veh/h)		639	1467	-	-	1487	-	-	581			
HCM Lane V/C Ratio		0.053		-	-	0.06	-	-	0.153			
HCM Control Delay (s)		11	7.5	0	-	7.6	0	-	12.3			
HCM Lane LOS		В	Α	Α	-	Α	Α	-	В			
HCM 95th %tile Q(veh)	0.2	0	-	-	0.2	-	-	0.5			

Intersection												
Int Delay, s/veh	2.6											
		LDT	EDD	WDL	WDT	WDD	NDI	NDT	NDD	CDI	CDT	CDD
Movement Configurations	EBL	EBT ♣	EBR	WBL	WBT	WBR	NBL	NBT ♣	NBR	SBL	SBT ♣	SBR
Lane Configurations	10	89	10	<i>L</i> 1	192	1	10	3	18	2	7	8
Traffic Vol, veh/h Future Vol, veh/h	10	89	10	64 64	192	1	10	3	18	3	7	8
Conflicting Peds, #/hr	10	09	0	04	0	1	10	0	2	2	0	1
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	- -	Jiop -	None	- -	Jiop -	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 I	Major1			Major2		1	Minor1		1	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							В			В		
Minor Lane/Major Mvm	nt N	VBLn1	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		В	Α	Α	-	Α	Α	-	В			
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	<u>₽</u>	LDIN	WDL	₩ <u>₩</u>	₩ W	NDIX
		2	20			150
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
	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
WWW.CT IOW	107	_	00	01	_	100
Major/Minor Ma	ajor1	N	Major2		Vinor1	
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	
Pot Cap-1 Maneuver	-		1405	-	663	873
Stage 1	_	_	1405	_	859	- 075
Stage 2		-		-	868	-
	-	-	-		000	-
Platoon blocked, %	-	-	1 401	-	(10	071
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					В	
Minor Lane/Major Mvmt	N	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	<u> </u>	867	-		1401	11.01
HCM Lane V/C Ratio						-
		0.185	-	-	0.027	-
HCM Long LOS		10.1	-	-	7.6	0
HCM Lane LOS		В	-	-	A	Α
HCM 95th %tile Q(veh)		0.7	-	-	0.1	-
		3.7			3.1	

Movement EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL SBR SBR SBR Traffic Vol, veh/h 96 90 1 2 149 3 3 5 5 6 5 79	Intersection												
Movement		4.1											
Traffic Vol, veh/h			EDT	EDD	MDI	MOT	14/00	NDI	NDT	NDD	001	ODT	000
Traffic Vol, Veh/h		FBL		EBR	WBL		WBR	NBL		NBR	SBL		SBR
Future Vol, veh/h 96 90		0/		4	0		0	0		-	,		70
Conflicting Peds, #/hr 2				-									
Sign Control Free Free Free Free Free Free Free Free Free None None	·												
RT Channelized None					•			-					
Storage Length			Free						•		•		
Veh in Median Storage, # - 0		-	•			-	None		-		•		None
Grade, % - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - - 0 - 0 - 0 - 0 0 100			0			0	-		0		-		-
Peak Hour Factor													
Heavy Vehicles, % 2 2 2 2 2 2 2 2 2													
Mymit Flow 96 90 1 2 149 3 3 5 5 6 5 79 Major/Minor Major1 Major2 Minor1 Minor2 Minor2 Minor2 Conflicting Flow All 154 0 0 92 0 482 442 92 445 441 154 Stage 1 - - - - - 284 284 - 157 157 - Stage 2 - - - 4.12 - 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.62 </td <td></td>													
Major/Minor Major1 Major2 Minor1 Minor2 Conflicting Flow All 154 0 0 92 0 0 482 442 92 445 441 157 Stage 1 - - - - - 284 284 - 157 157 - Stage 2 - - - - 284 284 - 157 157 - - 288 284 - 157 157 - - 288 284 - 157 157 - - 288 284 - - 288 284 - - 288 284 - - 280 284 - - 280 284 - - 280 284 -													
Conflicting Flow All	IVIVIIII I IOW	70	70		2	17/	J	J	J	J	U	J	17
Conflicting Flow All	Major/Mino-	Moler1			Malera			\ line=1			Miner?		
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 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.22 7.12 6.52 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 - 6.12 5.52 5.10 8.8 8 7.2 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>4.40</td> <td></td> <td></td> <td>444</td> <td>154</td>									4.40			444	154
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 5.10 8.12 8.12 6.12 5.23			U	U			U						
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 - - - - 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 - - - - - 804 767 - 720 676 - Platoon blocked, % - - - - 422 472 964 487 472 890 Mov Cap-1 Maneuver 1424 - 1502 - 422 472 964 487 472 - 842 -	O .		-	-	-		-						-
Critical Hdwy Stg 1 - - - - 6.12 5.52 - 6.12 8.2 Stage 1 - - - - - - - - - -<			-	-	112		-						4.22
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, % - - - - - 422 472 964 487 472 890 Mov Cap-1 Maneuver - - - - 422 472 - 487 472 - 84 - - 518 88 8 - - </td <td>J</td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	J			-			-						
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 - 6 7 723 676 - 845 768 - 720 676 510 965 523 510 892 762 763 765 768 768 768 768 768 768 768 768 768 768			-	-	-	-	-						
Pot Cap-1 Maneuver 1426 - 1503 - 495 510 965 523 510 892 Stage 1 - - - - - 723 676 - 845 768 - Stage 2 - - - - 804 767 - 720 676 - Plation blocked, % - - - - - 804 767 - 720 676 - Mov Cap-1 Maneuver 1424 - 1502 - 422 472 964 487 472 890 Mov Cap-1 Maneuver - - - - 422 472 964 487 472 890 Mov Cap-1 Maneuver - - - - 671 627 - 783 766 - Stage 1 - - - - 727 765 - 660 627 -			-	-	2 21Q	-	-						
Stage 1 - - - - 723 676 - 845 768 - Stage 2 - - - - 804 767 - 720 676 - Plation blocked, % -<			-	-		-	-						
Stage 2 - - - - 804 767 - 720 676 - Platoon blocked, % - <t< td=""><td></td><td></td><td></td><td></td><td>1303</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>					1303								
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 SB HCM Control Delay, s 4 0.1 11.5 10 HCM 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			_	_		_	_	- 00-r	101		, 20	070	
Mov Cap-2 Maneuver - - - - 422 472 - 487 472 - Stage 1 - - - - - 671 627 - 783 766 - Stage 2 - - - - 727 765 - 660 627 - Approach EB WB NB NB SB HCM Control Delay, s 4 0.1 11.5 10 HCM 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 <t< td=""><td></td><td>1424</td><td>_</td><td>_</td><td>1502</td><td>-</td><td></td><td>422</td><td>472</td><td>964</td><td>487</td><td>472</td><td>890</td></t<>		1424	_	_	1502	-		422	472	964	487	472	890
Stage 1 - - - - 671 627 - 783 766 - Stage 2 - - - - - 727 765 - 660 627 - Approach EB WB NB NB SB HCM Control Delay, s 4 0.1 11.5 10 HCM LOS B 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			_	_		_	_						
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 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		-	_	_	-	-	-						-
Approach EB WB NB SB HCM Control Delay, s 4 0.1 11.5 10 HCM LOS B 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	9	-	-	-	-	-	-			-			-
HCM Control Delay, s 4 0.1 11.5 10 HCM LOS B B B Minor Lane/Major Mvmt NBLn1 EBL 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	<u> </u>												
HCM Control Delay, s 4 0.1 11.5 10 HCM LOS B B B Minor Lane/Major Mvmt NBLn1 EBL 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	Annroach	FR			WR			MR			SB		
Minor Lane/Major Mvmt NBLn1 EBL 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													
Minor Lane/Major Mvmt NBLn1 EBL 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		4			U. I								
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	TOWI LOS							D			ט		
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	N. 61		IDI 4	EDI	EDT	EDD	14/51	MOT	14/55	0DL 4			
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		nt 1			EBT			WBT	WBR:				
HCM Control Delay (s) 11.5 7.7 0 - 7.4 0 - 10 HCM Lane LOS B A A - A A - B					-			-					
HCM Lane LOS B A A - A A - B						-			-				
						-							
HCM 95th %tile Q(veh) 0.1 0.2 0.4													
	HCM 95th %tile Q(veh))	0.1	0.2	-	-	0	-	-	0.4			

Intersection		
Intersection Delay, s/veh	9.1	
Intersection LOS	А	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		₩			4			₩			4	
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	Α			Α			Α			Α		

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	А	Α	Α	А	
HCM 95th-tile Q	8.0	0.3	0.5	1.3	

Intersection						
Intersection Delay, s/v Intersection LOS	eh40.3					
Intersection LOS	Е					

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		4			4			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			1			1			
Conflicting Approach R	ightNB			SB			WB			EB			
Conflicting Lanes Right	1			1			1			1			
HCM Control Delay	16.8			24.1			24.8			68.1			
HCM LOS	С			С			С			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	С	С	С	F
HCM 95th-tile Q	5.1	2	4.9	14.4

Interception												
Intersection	<i>1</i> F											
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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 I	Major1		1	Major2			Minor1		- 1	Minor2		
Conflicting Flow All	21	0	0	98	0	0	92	92	59	92	131	21
Stage 1	-	-	-	70	-	-	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	- 1.12	_	_	- 1.12	_	_	6.12	5.52	0.22	6.12	5.52	- 0.22
Critical Hdwy Stg 2	-	_	_	_	_	_	6.12	5.52	_	6.12	5.52	_
Follow-up Hdwy	2.218	_	_	2.218	-	_	3.518			3.518	4.018	3.318
Pot Cap-1 Maneuver	1595	-	-	1495	-	-	892	798	1007	892	760	1056
Stage 1		_	_	, 0	_	_	950	844	-	986	869	-
Stage 2	-	-	-	-	-	-	986	869	-	950	812	-
Platoon blocked, %		_	_		-	-		50,				
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		
	0.1			1.4			9.6			0		
HCM Control Delay, s HCM LOS	U. I			1.4			9.0 A			A		
TICIVI LUS							A			А		
Minor Lane/Major Mvm	nt r	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		Α	Α	Α	-	Α	Α	-	Α			
HCM 95th %tile Q(veh))	0.4	0	-	-	0	-	-	-			

Intersection						
Int Delay, s/veh	0.9					
		EDD	NDL	NDT	CDT	CDD
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	₩	-05	.00	4	0.41	7
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, # 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
IVIVIII I IOVV	40	20	22	773	UTI	04
Major/Minor I	Minor2		Major1	Λ	/lajor2	
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		3.318		_	_	_
Pot Cap-1 Maneuver	80	363	750		_	_
	422	303	730	_	_	
Stage 1		-	-	-		
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	С					
Minor Lane/Major Mvm	nt	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	Α	C	-	-
HCM 95th %tile Q(veh))	0.1	-	1	-	-

	•	•	<u></u>	<u> </u>	<u> </u>	↓
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W M	WDI	†	Holt	ODL	†
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	U	1.00	1.00	0
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	030	0	450	0	0	724
Peak Hour Factor	1.00		1.00		1.00	1.00
		1.00		1.00		1.00
Percent Heavy Veh, %	0	0	2	2	0	
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	12.1 B	0.0	Α	0.0	0.0	7.0 A
Approach Vol, veh/h	578		456			724
• •	12.1		6.9			7.8
Approach LOS						
Approach LOS	В		Α			А
Timer	11	2	3	4	5	6
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
" - '		۷٠,		5.1		J. 1
Intersection Summary						
HCM 2010 Ctrl Delay			9.0			
HCM 2010 LOS			А			

Movement EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL SBT SBT SBT SBT SBT SBL SBL SBT SBL SBL SBT SBL SBL SBL SBT SBL SBL SBT SBL SBL SBL SBT SBL SBL SBT SBL SBT SBL SBL SBL SBL SBL SBL SBT SBL SBL SBL SBL SBL SBL SBT SBL SBL SBL SBL SBT SBL SBT SBL SBT SBL SBT SBL SBT SBL SB	1 88 1 88
Traffic Volume (veh/h) 65 435 386 20 578 118 223 216 17 79 371 Future Volume (veh/h) 65 435 386 20 578 118 223 216 17 79 371 Number 5 2 12 1 6 16 7 4 14 3 8	1 88 1 88
Future Volume (veh/h) 65 435 386 20 578 118 223 216 17 79 371 Number 5 2 12 1 6 16 7 4 14 3 8	1 88
Number 5 2 12 1 6 16 7 4 14 3 8	
	Ω 1Ω
Initial Q (Qb), veh 0 0 0 0 0 0 0 0	0 10
	0 0
Ped-Bike Adj(A_pbT) 1.00 0.90 1.00 0.91 1.00 0.97 1.00 0	0.97
Adj Flow Rate, veh/h 65 435 386 20 578 118 223 216 17 79 371	
Adj No. of Lanes 0 2 1 0 2 0 0 1 1 0 1	
Percent Heavy Veh, % 2 2 2 2 2 2 2 2 2 2	
Sat Flow, veh/h 231 2085 1432 45 2702 546 923 894 1532 324 1522 1	2 1532
Grp Volume(v), veh/h 160 340 386 384 0 332 439 0 17 450 0	0 88
	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	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	0 5.0
	1.00
Lane Grp Cap(c), veh/h 293 567 931 652 0 540 490 0 413 504 0	0 418
	0.21
Avail Cap(c_a), veh/h 293 567 931 652 0 540 623 0 526 633 0	0 526
HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0	0 1.00
Upstream Filter(I) 1.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 0.00 1	0 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 3	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 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
%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	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 3	0 32.1
LnGrp LOS D C B C D D C D	С
Approach Vol, veh/h 886 716 456 538	8
Approach Delay, s/veh 26.6 34.7 52.5 49.2	2
Approach LOS C 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 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+l1), 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	

	•	→	—	•	<u> </u>	√		
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations	ች	<u></u>	↑	7	"	7		
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		
2 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	7.0	20.7	1.00	1.00	1.00		
ane Grp Cap(c), veh/h	350	1253	829	683	466	728		
//C Ratio(X)	0.93	0.23	0.61	0.58	0.92	0.55		
vail Cap(c_a), veh/h	462	1253	829	683	595	844		
ICM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00		
Ipstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00		
Jniform Delay (d), s/veh	51.4	8.3	27.5	27.0	46.7	25.4		
ncr Delay (d2), s/veh	18.5	0.4	3.3	3.5	15.6	0.5		
nitial Q Delay(d3),s/veh	0.0	0.4	0.0	0.0	0.0	0.0		
Gile BackOfQ(50%),veh/ln	13.2	4.1	14.4	11.3	17.0	22.3		
nGrp Delay(d),s/veh	69.9	8.7	30.8	30.6	62.3	25.9		
nGrp LOS	07.7 E	Α	C	30.0 C	02.3 E	23.4 C		
pproach Vol, veh/h	<u> </u>	612	896	C	826			
approach Delay, s/veh		41.1	30.7		620 44.7			
Approach LOS		41.1 D	30.7 C		44.7 D			
'		U			D			
imer	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+l1), s		9.8		32.5	25.4	28.7		
Green Ext Time (p_c), s		1.2		1.8	0.3	2.9		
ntersection Summary								
HCM 2010 Ctrl Delay			38.4					
HCM 2010 LOS			D					
Votes								
* HCM 2010 computational en	gine requ	uires equa	al clearan	ce times	or the ph	ases cros	ssing the barrier.	
	J 4				P.1.	2.00	J .	

Cumulative+P PM.syn Hexagon

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4	7		4T }		۲	∱ 1>	
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	Е			D		В	Е		Е	С	Α	А
Approach Vol, veh/h		139			252			792			1091	
Approach Delay, s/veh		62.6			27.8			63.6			9.2	
Approach LOS		Е			С			Е			А	
Timer	1		2	1	5	4	7	8				
		2	3	4		6	1					
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+l1), 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		8.0				
Intersection Summary												
HCM 2010 Ctrl Delay			33.5									
HCM 2010 LOS			С									
Notes												
* HCM 2010 computational en	gine req	uires equa	al clearan	ce times	for the ph	ases cros	ssing the	barrier.				

Cumulative+P PM.syn Hexagon

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Marramant		→	MOT		-	4	
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	١٦	↑ ↑↑	^	220	ነ	777	
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	J. 4	23.4	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	Α	С	D	D	В	
Approach Vol, veh/h		1653	1783		996		
Approach Delay, s/veh		18.9	36.7		21.6		
Approach LOS		В	D		С		
Timer	1	2	3	4	5	6	
Assigned Phs	1	2				6	
Phs Duration (G+Y+Rc), s	19.7	30.3				50.0	
Change Period (Y+Rc), s	4.0	4.0				4.0	
Max Green Setting (Gmax), s	16.0	26.0				46.0	
						7.4	
Max Q Clear Time (g_c+l1), s	15.6	25.6					
Green Ext Time (p_c), s	0.2	0.4				7.9	
Intersection Summary							
HCM 2010 Ctrl Delay			26.7				
HCM 2010 LOS			С				

	•	→	•	•	—	•	•	†	<i>></i>	\	 	-√
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	र्स	7	ň	4		ħ	† †	7	ħ	† †	7
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	8.0	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	В	A	E	В	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			Е			В	
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 (q_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												
Notes Jser approved volume balancing among the lanes for turning movement.												

	•	→	•	•	—	•	•	†	<u></u>	<u> </u>	+	→
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7	†	7	Ŋ	1>			4	7		↔	
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	С	В	В	С		Α	В		В	В		
Approach Vol, veh/h		528			525			478			212	
Approach Delay, s/veh		14.0			13.2			13.4			12.5	
Approach LOS		В			В			В			В	
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 HCM 2010 LOS			13.4 B									

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Movement	EBL	EBT	EBR	₩BL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	↑ ↑		ነ	†	7	ሻ	ተተጉ		ሻ	^	7
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									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	∱ }		ሻሻ	†	7	ሻ	^	7	ሻሻ	† †	7
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	С	F	D	В	E	F	В
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 rigi	ht turn ty	pe.										
												_

	•	•	†	<u> </u>	\	+		
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	ሻሻ	77	† †			† †		
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	11.0	0.00	0.00	0.1		
Lane Grp Cap(c), veh/h	709	574	2443	0.00	0.00	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	0.00	0.00	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	20.5 C	В	0.0	0.0	A		
Approach Vol, veh/h	804		2269			869		
Approach Delay, s/veh	30.7		14.6			5.5		
Approach LOS	30.7 C		14.0 B			3.5 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		0.7
Change Period (Y+Rc), s		4.1				4.1		4.2
Max Green Setting (Gmax), s		46.7				46.7		5.0
Max Q Clear Time (g_c+l1), s		46.3				10.1		4.0
Green Ext Time (p_c), s		0.4				7.4	•	2.5
Intersection Summary								
HCM 2010 Ctrl Delay			15.9					
HCM 2010 LOS			В					

	•		•	<u>†</u>	1	4
Movement	EBL	▼	NBL		▼	CDD
Movement Lang Configurations	FBL	EBR *	INRL	NBT ↑↑	SBT ↑↑	SBR
Lane Configurations			0			0
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	0.00	3725	3725	0.00
	1567	401	0	984	947	0
Grp Volume(v), veh/h						
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
			0.0			0.0
LnGrp LOS	C	В		C	A	
Approach Vol, veh/h	1968			984	947	
Approach Delay, s/veh	24.4			22.1	7.2	
Approach LOS	С			С	Α	
Timer	1	2	3	4	5	6
Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		36.7		43.3		36.7
Change Period (Y+Rc), s		4.1		43.3		4.1
Max Green Setting (Gmax), s		28.9		4.1		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			В			

Intersection														
Intersection Delay, sa	/veh14.2													
Intersection LOS	В													
Movement	EDI	EDT	EDD	\\/DI	WDT	W/DD	NIDI	NIDT	NIDD	CDI	CDT	CDD		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		474			€Î}•			4			4		
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 Le	eft SB			NB			EB			WB			
Conflicting Lanes Left	1			1			2			2			
Conflicting Approach R	igh t NB			SB			WB			EB			
Conflicting Lanes Right	1			1			2			2			
HCM Control Delay	15.6			13.3			12.9			12.6			
HCM LOS	С			В			В			В			

Lane	NBLn1	EBLn1	EBLn2V	VBLn1V	VBLn2	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	В	С	С	В	В	В	
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		414			4T+			4			4	
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 N	1ajor1		N	Major2		N	Minor1		Λ	/linor2		
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:	SBI n1			
Capacity (veh/h)		142	822	-	LDIX	743	VV D 1	VV DIC.	176			
HCM Lane V/C Ratio				-	_	0.027	_		0.71			
HCM Control Delay (s)		35.4	10.1	1.1	-	10	0.2	-	64.1			
HCM Lane LOS		33.4 E	В	Α		A	Ο.2		04.1 F			
HCM 95th %tile Q(veh)		0.6	0.5	-		0.1	-		4.4			
110W 75W 75W 70W Q(VCII)		0.0	0.0			0.1			-7.7			

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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		ı	Major2			Minor1		ı	Minor2		
Conflicting Flow All	111	0	0	100	0	0	222	225	95	233	230	111
Stage 1	- 111	-	U	100	-	-	96	96	95	128	128	- 111
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	4.12	_		4.12	-	-	6.12	5.52	0.22	6.12	5.52	0.22
Critical Hdwy Stg 2		-	_	_	-		6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-		2.218	_	-	3.518		3.318	3.518	4.018	
Pot Cap-1 Maneuver	1479	_		1493	_	_	734	674	962	722	670	942
Stage 1	- 1 (1 /	_	_	- 1170	_	_	911	815	702	876	790	- /
Stage 2	_	_	_	_	_	-	878	789	_	901	811	-
Platoon blocked, %		_	_		_	_	010	107		701	011	
Mov Cap-1 Maneuver	1474	_	_	1492	_	-	728	667	960	702	663	938
Mov Cap-2 Maneuver	-	_	_	- 1 1 / 2	_	_	728	667	-	702	663	-
Stage 1	-	_	_	-	-	-	909	813	-	872	783	-
Stage 2	-	_	_	_	_	_	871	782	_	882	809	-
3.ago 2							5, 1	. 02		302	307	
	EF) A / E			NE			0.5		
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.6			9.6			10		
HCM LOS							Α			В		
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:	SBLn1			
Capacity (veh/h)		816			_	1492			733			
HCM Lane V/C Ratio		0.042		_		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	-	В			
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0			
	,											

latan atta												
Intersection	47											
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
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	e,# -	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 I	Major1		1	Major2		1	Minor1		1	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	- 1.12	_	_	- 1.12	_	_	6.12	5.52	- 0.22	6.12	5.52	- 0.22
Critical Hdwy Stg 2	_	_	_	_	_	_	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	_	_	2.218	-	_	3.518		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, %		_	_		-	_					300	
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		
	1			0.9			9.8			10.2		
HCM LOS				0.9								
HCM LOS							А			В		
Minor Lane/Major Mvm	nt N	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR:				
Capacity (veh/h)		807	1515	-	-	1546	-	-	748			
HCM Lane V/C Ratio			0.005	-	-	0.007	-	-	0.068			
HCM Control Delay (s)		9.8	7.4	0	-	7.3	0	-	10.2			
HCM Lane LOS		Α	Α	Α	-	Α	Α	-	В			
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 SB
Lane Configurations \clubsuit \clubsuit
Traffic Vol, veh/h 1 54 2 15 64 2 8 13 15 1 4
Future Vol, veh/h 1 54 2 15 64 2 8 13 15 1 4
Conflicting Peds, #/hr 1 0 0 0 0 1 1 0 2 2 0
Sign Control Free Free Free Free Free Stop Stop Stop Stop Stop Stop Stop Stop
RT Channelized None None None
Storage Length
Veh in Median Storage, # - 0 0 0
Grade, % - 0 0 0
Peak Hour Factor 100 100 100 100 100 100 100 100 100 10
Heavy Vehicles, % 2 2 2 2 2 2 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
Major/Minor Major1 Major2 Minor1 Minor2
Conflicting Flow All 67 0 0 56 0 0 158 154 57 169 154 6
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 6.2
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 3.31
Pot Cap-1 Maneuver 1535 1549 808 738 1009 795 738 99
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 99
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
HOW EGG 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

Conflicting Flow All 0 0 69 0 Stage 1 - - - - Stage 2 - - - - Critical Hdwy - - 4.12 - Critical Hdwy Stg 1 - - - - Critical Hdwy Stg 2 - - - -	NBL 3 3 3 1 Stop 0 0 100 2 3 Minor1 161 69 92 6.42 5.42	NBR 54 54 0 Stop None 100 2 54 69 - 6.22
Movement EBT EBR WBL WBT Lane Configurations ♣ ♣ ♣ ♣ Traffic Vol, veh/h 66 0 21 49 Future Vol, veh/h 66 0 21 49 Conflicting Peds, #/hr 0 3 3 0 Sign Control Free	3 3 1 Stop 0 0 0 100 2 3 Minor1 161 69 92 6.42 5.42	54 54 0 Stop None - - 100 2 54
Lane Configurations ♣ ♣ Traffic Vol, veh/h 66 0 21 49 Future Vol, veh/h 66 0 21 49 Conflicting Peds, #/hr 0 3 3 0 Sign Control Free Pree D 0 </td <td>3 3 1 Stop 0 0 0 100 2 3 Minor1 161 69 92 6.42 5.42</td> <td>54 54 0 Stop None - - 100 2 54</td>	3 3 1 Stop 0 0 0 100 2 3 Minor1 161 69 92 6.42 5.42	54 54 0 Stop None - - 100 2 54
Traffic Vol, veh/h 66 0 21 49 Future Vol, veh/h 66 0 21 49 Conflicting Peds, #/hr 0 3 3 0 Sign Control Free Pree 0	3 3 1 Stop 0 0 100 2 3 Minor1 161 69 92 6.42 5.42	54 0 Stop None - - - 100 2 54
Future Vol, veh/h 66 0 21 49 Conflicting Peds, #/hr 0 3 3 0 Sign Control Free 0 0	3 1 Stop 0 0 100 2 3 Minor1 161 69 92 6.42 5.42	54 0 Stop None - - - 100 2 54
Conflicting Peds, #/hr 0 3 3 0 Sign Control Free 0 0 0 <	1 Stop 0 0 0 100 2 3 Minor1 161 69 92 6.42 5.42	0 Stop None - - 100 2 54
Sign Control Free Roone Stade, % 0 - - 0 0 100 1	Stop	Stop None - - 100 2 54 - 69 - - 6.22
RT Channelized - None - None Storage Length	0 0 0 100 2 3 Minor1 161 69 92 6.42 5.42	None 100 2 54 69 6.22
Storage Length - - - - - - - - 0 Grade, W 0 - - 0 0 - - 0 0 - - 0 0 0 100	0 0 100 2 3 Minor1 161 69 92 6.42 5.42	- - 100 2 54 69 - - 6.22
Veh in Median Storage, # 0 - - 0 Grade, % 0 - - 0 Peak Hour Factor 100 100 100 100 Heavy Vehicles, % 2 2 2 2 2 Mvmt Flow 66 0 21 49 Major/Minor Major1 Major2 I Conflicting Flow All 0 0 69 0 Stage 1 - - - - Stage 2 - - - - Critical Hdwy - 4.12 - Critical Hdwy Stg 1 - - - Critical Hdwy Stg 2 - - -	0 100 2 3 Minor1 161 69 92 6.42 5.42	- 100 2 54 69 - - 6.22
Grade, % 0 - - 0 Peak Hour Factor 100 100 100 100 Heavy Vehicles, % 2 2 2 2 2 Mvmt Flow 66 0 21 49 Major/Minor Major1 Major2 I Conflicting Flow All 0 0 69 0 Stage 1 - - - - Stage 2 - - - - Critical Hdwy - 4.12 - Critical Hdwy Stg 1 - - - Critical Hdwy Stg 2 - - -	0 100 2 3 Minor1 161 69 92 6.42 5.42	100 2 54 69 - 6.22
Peak Hour Factor 100 100 100 100 Heavy Vehicles, % 2 2 2 2 2 Mvmt Flow 66 0 21 49 Major/Minor Major1 Major2 I Conflicting Flow All 0 0 69 0 Stage 1 - - - - Stage 2 - - - - Critical Hdwy - 4.12 - Critical Hdwy Stg 1 - - - Critical Hdwy Stg 2 - - -	100 2 3 Minor1 161 69 92 6.42 5.42	100 2 54 69 - 6.22
Heavy Vehicles, % 2 2 2 2 2 49 Major/Minor Major1 Major2 I Conflicting Flow All 0 0 69 0 Stage 1 - - - - Stage 2 - - - - Critical Hdwy - 4.12 - Critical Hdwy Stg 1 - - - Critical Hdwy Stg 2 - - -	2 3 Minor1 161 69 92 6.42 5.42	69 - 6.22
Moment Flow 66 0 21 49 Major/Minor Major1 Major2 I Conflicting Flow All 0 0 69 0 Stage 1 - - - - Stage 2 - - - - Critical Hdwy - 4.12 - Critical Hdwy Stg 1 - - - Critical Hdwy Stg 2 - - -	3 Minor1 161 69 92 6.42 5.42	69 - - 6.22
Major/Minor Major1 Major2 I Conflicting Flow All 0 0 69 0 Stage 1 - - - - Stage 2 - - - - Critical Hdwy - - 4.12 - Critical Hdwy Stg 1 - - - - Critical Hdwy Stg 2 - - - -	Minor1 161 69 92 6.42 5.42	69 - - 6.22
Conflicting Flow All 0 0 69 0 Stage 1 - - - - Stage 2 - - - - Critical Hdwy - - 4.12 - Critical Hdwy Stg 1 - - - - Critical Hdwy Stg 2 - - - -	161 69 92 6.42 5.42	6.22
Conflicting Flow All 0 0 69 0 Stage 1 - - - - Stage 2 - - - - Critical Hdwy - - 4.12 - Critical Hdwy Stg 1 - - - - Critical Hdwy Stg 2 - - - -	161 69 92 6.42 5.42	6.22
Conflicting Flow All 0 0 69 0 Stage 1 - - - - Stage 2 - - - - Critical Hdwy - - 4.12 - Critical Hdwy Stg 1 - - - - Critical Hdwy Stg 2 - - - -	161 69 92 6.42 5.42	6.22
Stage 1 - - - - Stage 2 - - - - Critical Hdwy - - 4.12 - Critical Hdwy Stg 1 - - - - Critical Hdwy Stg 2 - - - -	69 92 6.42 5.42	6.22
Stage 2 - - - - Critical Hdwy - - 4.12 - Critical Hdwy Stg 1 - - - - Critical Hdwy Stg 2 - - - -	92 6.42 5.42	6.22
Critical Hdwy Stg 1 4.12 - Critical Hdwy Stg 2	6.42 5.42	6.22
Critical Hdwy Stg 1 Critical Hdwy Stg 2	5.42	
Critical Hdwy Stg 2		-
	5.42	_
FUILUVV-UD FILLVVV Z.Z.IO -	3.518	
Pot Cap-1 Maneuver 1532 -	848	994
·	954	994
Stage	944	-
Stage 2		-
Platoon blocked, %	1	000
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	
M. 1 /M. 1 M. 1 M. 1 FDT TO	MO	MOT
Minor Lane/Major Mvmt NBLn1 EBT EBR	WBL	WBT
	1528	-
	0.014	-
HCM Control Delay (s) 8.9	7.4	0
HCM Lane LOS A		Α
HCM 95th %tile Q(veh) 0.2	A 0	^

Intersection												
Int Delay, s/veh	3.4											
		EDT	EDD.	MDI	MOT	14/00	NDI	NDT	NDD	001	ODT	000
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4		_	4	_		4			4	
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 N	Major1			Major2			Vinor1			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	-
<u> </u>												
Approach	EB			WB			NB			SB		
HCM LOS	2.9			0.4			10 B			9.1		
HCM LOS							B			А		
Minor Lane/Major Mvm	nt	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		В	Α	Α	-	Α	Α	-	Α			
HCM 95th %tile Q(veh))	0	0.1	-	-	0	-	-	0.2			

County of San Mateo - Planning and Building Department

PLACHMENT

COUNTY OF SAN MATEO PLANNING AND BUILDING

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.



455 County Center, 2nd Floor

Redwood City, CA 94063

www.planning.smcgov.org

650-599-7310 T

PROJECTELLE

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

Adopted By: Planning Commission

Project Planner

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

- 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. <u>Mitigation Measure 1</u>: 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. <u>Mitigation Measure 2</u>: All staff members who drive to the school shall be required to park in the school's on-site parking lot.
- 13. <u>Mitigation Measure 3</u>: 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. <u>Mitigation Measure 4</u>: 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. <u>Mitigation Measure 5</u>: 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 <u>and picked up</u> 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. <u>Mitigation Measure 7</u>: The applicant shall <u>apply for an encroachment permit to</u> install a left-turn refuge lane on Marsh Road, within the current roadway width, to improve the intersection operation. <u>Plans shall be submitted to the Department of Public Works</u>
 Traffic Services for review and approval.
- 18. <u>Mitigation Measure 8</u>: 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. <u>Mitigation Measure 9</u>: 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

PLACHMENT

ROBERT J. LANZONE JEAN B. SAVAREE GREGORY J. RUBENS CAMAS J. STEINMETZ KAI RUESS KIMBERLY L. CHU JEREMY KIRSHNER

CAMAS J. STEINMETZ, Ext. 225

Email: csteinmetz@adcl.com



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1001 LAUREL STREET, SUITE A SAN CARLOS, CALIFORNIA 94070 PHONE: 650-593-3117 FAX: 650-453-3911 www.adcl.com MICHAEL AARONSON (1910-1998) 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
	Office Areas	269 sq. ft.	1 / 200 sq. ft.	2
3345 Edison Way	Classrooms	2	1 / classroom	2
SO TO Edison Way	Extended Classroom/Lab Space	13,002 sq. ft.	1 / 2,000 sq. ft.	7
	11			
	Office Areas	1,641 sq. ft.	1 / 200 sq. ft.	8
	Classrooms	4	1 / classroom	4
3355 Edison Way	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
	65			
	Office Areas	1,159 sq. ft.	1 / 200 sq. ft.	6
	Classrooms	19	1 / classroom	19
3375 Edison Way	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
	35			
	Office Areas	1,913 sq. ft.	1 / 200 sq. ft.	10
3425 Edison Way	Classrooms	9	1 / classroom	9
	Multi-Use Space	1,340 sq. ft.	1 / 100 sq. ft.	14
	33			
Total Parking Req	144			
Total Parking Provi	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.		

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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. County Parking Calculations – Proposed Use Permit Amendment

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:

(MIXED-USE INDUSTRIAL/EDISON/ NORTH FAIR OAKS DISTRICT)

SECTION 6277.7. PARKING. 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.

 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 offstreet 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.	INS	TITUTIONAL AND OTHER	<u> </u>
	1.	All uses listed under the "Institutional Use Classification" in Section 6576.3, Uses	1 space per 400 sq. ft.
1	•	A 4 ¹ 4 4 ¹ 1 O41 1	4 4 000 4

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. <u>Hexagon Parking Demand Study</u>

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 preschool 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. Conclusion

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

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County of San Mateo - Planning and Building Department

PLACHMENT

SAN MATEO COUNTY PECEIVED ON JAN, 30,2002 Planning AND Building 200 floor This notice KEDWOOD CITY CA 94063

JANUARY 31, 2020 (22)

DEARMS, KANDA KE lley in Reference to your LETTER DATES JANUARY 10, 22 RECARDING! AVISO DE ENMIENDA A UN PERMISODE USO NO CONFORME I'M SOLICITING UNDER PLN 2014-00295 THE ALLOWED USE AT 3355 EDISON WAY, @ NORTH FAIR OAKS, A NON SONFORMING REPAIR,

* I object to morable the number of students TO 310 FROM 260.

IT IS DEPRIMENTAL TO ME HOVING to PROK Two eslocks Away From my House AT 594 6Th Avenue, Hen 6 PARK & 94026, BEGAUSE THE School Employees PARKONY AREA All Dry, I objeted to THE Blocking of the PARKING AREA AT THAT School, to Allow For REGRETIONAL USE AND AN AREA OF LOAD AND Unlead of students by their papents A SEPIES of paperings ARE USED FOR OTHER PURPOSEAS well Living the REquired 60 arrently + Hower WHERE IT IS NEEDED. 144.

I'm AWARE that I complained to your Dept, 9 months Ago, About this problem And nothing uss Done,

your papt sent me to A phone that this Answering Serice. And I those the SIME Problem Again since, I'm parking off Street one to Two placks Away, I'm 75 years old Angitis A HARShip AND DOTP MENTOL to my HEALTH. De tours were by use warettouses. And that the correct use Does not frouring for the proper function of The Services As School. During Enry Morning the Street is nonow and the people that Bring in Prop Their Kids, gets John MED AND Block the Flow of that norrow Street and 154 Long Line ROR Over 20 GARS ATTHE SAME TIME LONG FOR EVER SO MINUTES. Happens to take my games children to School And Have to Travel Against TRAFFIC Dotto get THROUgh THAT MESS. I seen this problem Sme I nover HERE. Agrin. PLEASE COME LAND SEE FOR YORK SECF HE ISSIE,

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15 THE RIGH PLACE FOR A SCHOOL LIKE THIS. MONE YOUR THE MONEY FROM THE MAPPET FUNDS OF BAPPOW ON IT TO BUILD THEM A PARA CITY That conforms w/ All the peoplifements, BE AWARE That these groups of chasses go m To THE Sports content Frailities THRENG A norrow street THAT HAS NO SIDE WHILES AND IT IS EXPERENT TO THE BHSY TRAFFIC HITT THE COMPLEX REXTOR USES OVER 200 ARS PASS THROUGH THERE, THERE ARE NO STREET SPEED SIGNS DICTOTHY THE 'SCHOOL WARMING AW ALSO THE FIRE MARSHALL REQUIREMENTE THAT would not Allow A FIRE TROCK THROUGH. STOP giving use permits TE MONE CONFORMING APPLICANTS, Try " AN ENVIRONENTAL IMPART
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C, SUPERUSORS

EPHILLETO PARPOR MEN LO PARIC

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

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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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Chym Hoshida Javid Sunlam