Appendix N

Conceptual Wildfire Evacuation Plan

Conceptual Wildfire Evacuation Plan

Renzulli Estates Project

CITY OF SAN DIEGO PTS# 674401

NOVEMBER 2023

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
CAL FIRE	California Department of Forestry and Fire Protection
CALTRANS	California Department of Transportation
City	City of San Diego
CERT	Community Emergency Response Team
CHP	California highway Patrol
CPA	Community Plan Amendment
DAS	Department of Animal Services
EAS	Emergency Alert System
EOP	Emergency Operations Plan
FEMA	Federal Emergency Management Agency
HOA	Homeowner's Association
IC	Incident Command
IFTSA	International Fire Service Training Association
MRN	Miramar Ranch North
NIMS	National Incident Command System
NWFCG	National Wildland Fire Coordinating Groups
OA	Operational Area
OES	Office of Emergency Services
Project	Renzulli Estates Project
SANDAG	San Diego Association of Governments
SDCFA	San Diego County Fire Authority
SDFRD	San Diego Fire and Rescue Department
SDSD	San Diego Sheriff's Department
SEMS	State Emergency Management System
TRA	Temporary Refuge Area
VoIP	Voice over Internet Protocol
WUI	Wildland-Urban Interface

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1 Quick Reference – Wildfire Preparedness

The Quick Reference Guide provides helpful tips and educational resources, so residents are prepared in the event of a wildland fire evacuation.

The project's evacuation routes for residents and guests are detailed below and in Figure 1, and detailed in Section 4. Figure 2 displays the Renzulli Estates vicinity location and Figure 3 is the project's site plan. Occupants (e.g., residents and guests) should know available routes, stay informed, and follow directions provided by law enforcement or fire agencies, news media, and other credible sources. Do not rely on navigation apps that may inadvertently lead persons toward the approaching wildfire.

1.1 Nearest Medical Facilities

Hospitals:

Palomar Medical Center Poway
15615 Pomerado Road
Poway, California 92064

Directions:
Southeast on Cypress Canyon Rd
Right on Cypress Canyon Park Dr
Left on Pomerado Road
Hospital on right

Scripps Memorial – La Jolla
9888 Genesee Avenue
La Jolla, California 92037

Directions:
Southeast on Cypress Canyon Rd
Right on Cypress Canyon Park Dr
Continue on Pomerado Rd to Miramar Rd
Right on Eastgate Mall
Right on Genesee Ave
Left on Scripps Hospital Driveway
Hospital on Right

UC San Diego Health – La Jolla
9434 Medical Center Drive
La Jolla, California 92037

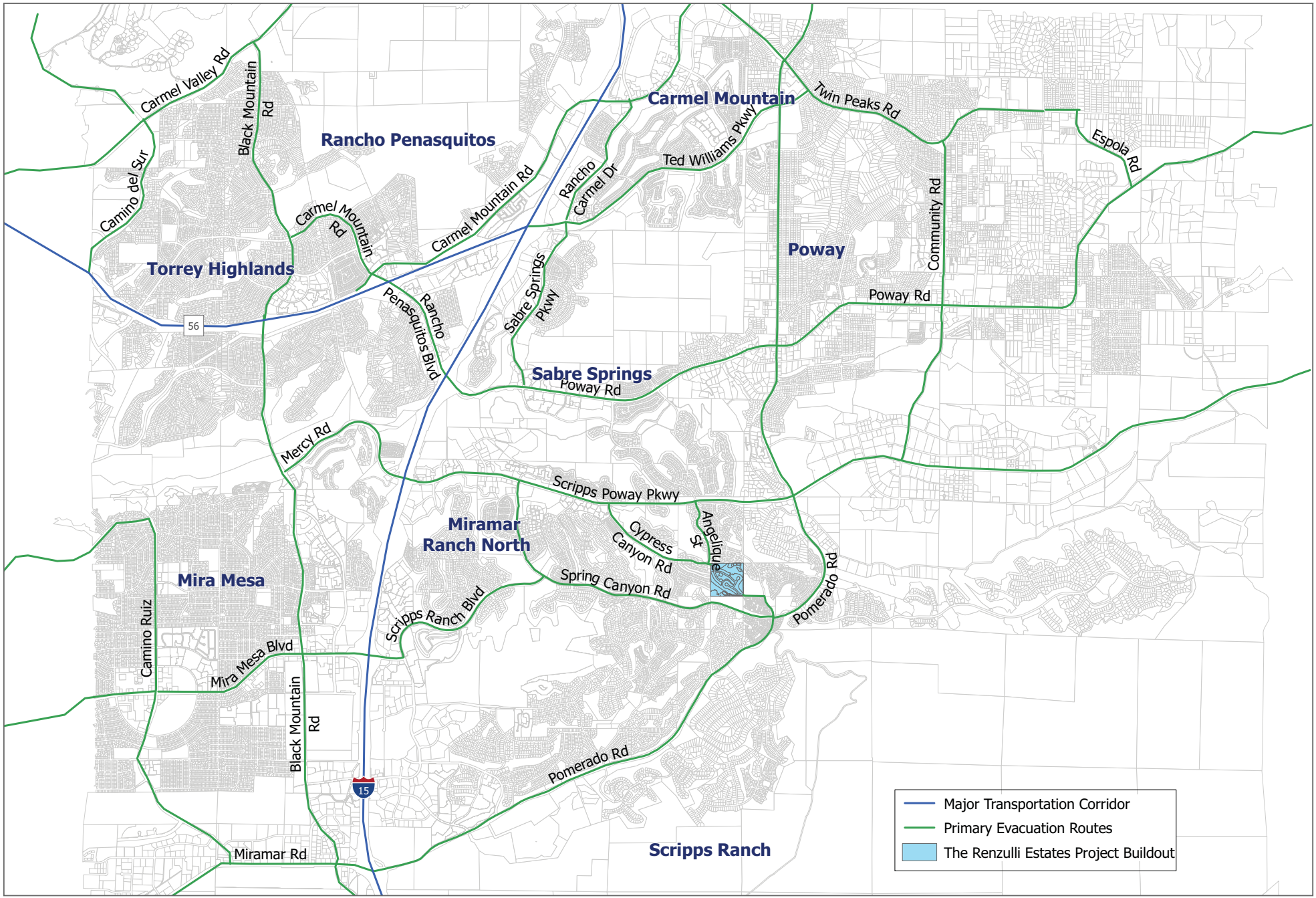
Directions:
Southeast on Cypress Canyon Rd
Right on Cypress Canyon Park Dr
Continue on Pomerado Rd to Miramar Rd
Right on Eastgate Mall
Right on Regents Rd
Left on Health Sciences Dr
Right onto Medical Center Dr
Hospital on Left

Urgent Care Facilities:

MD Today Urgent Care
10605 Scripps Poway Parkway
San Diego, California 92131

American Family Care Urgent Care
8260 Mira Mesa Boulevard
San Diego, California 92126

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SOURCE: SANGIS 2021

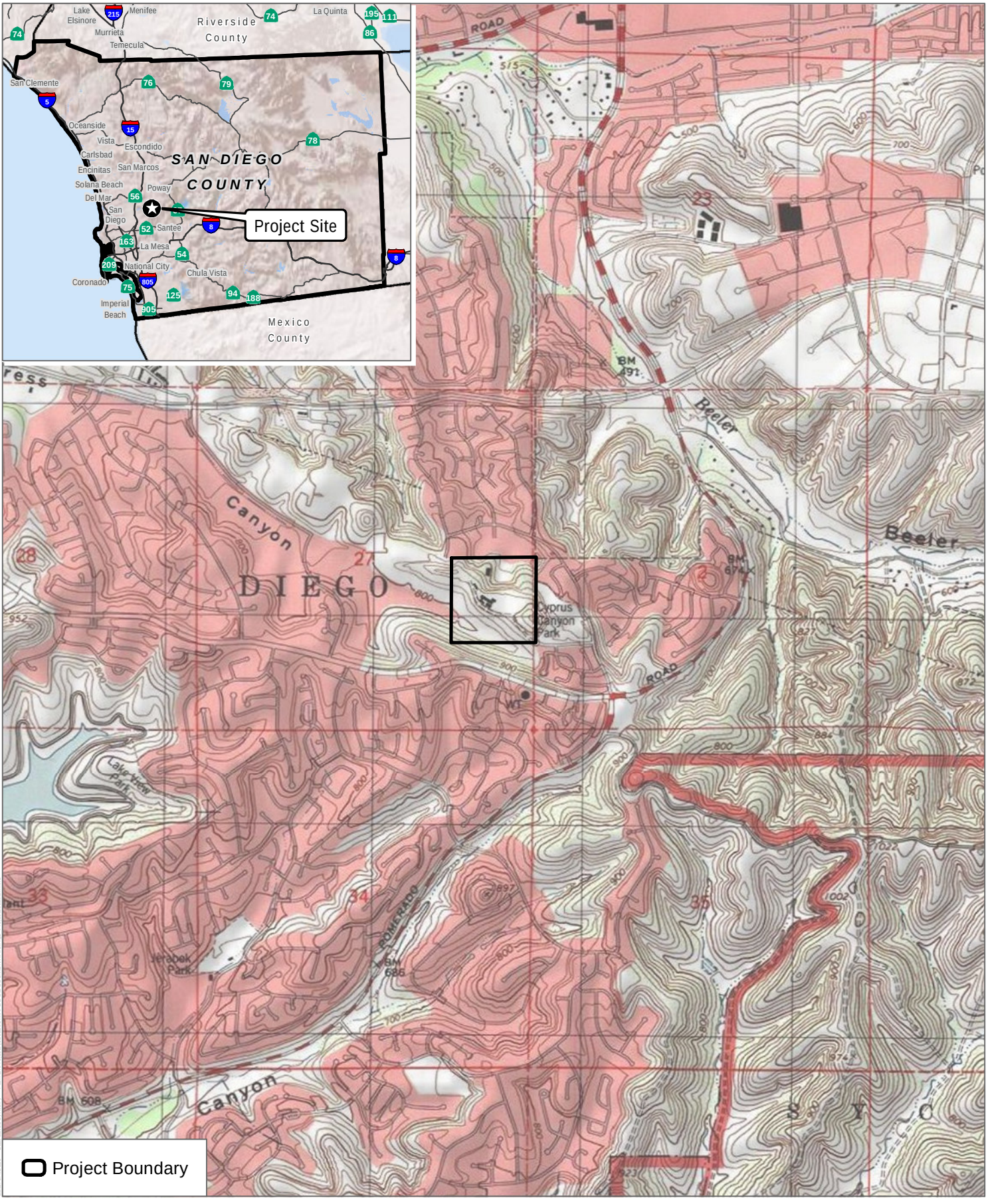
FIGURE 1

Evacuation Routes

Wildfire Evacuation Plan for the Renzulli Estates Project

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SOURCE: USGS 7.5-Minute Series Poway Quadrangle

0 1,000 2,000 Feet
0 285 570 Meters
1:24,000

DUDEK

FIGURE 2

Project Location

Wildfire Evacuation Plan for the Renzulli Estates Project

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SOURCE: SANGIS 2017, Hunsaker and ssociates 2022

DUDEK

0 125 250 Feet

FIGURE 3

Site Plan

Wildfire Evacuation Plan for the Renzulli Estates Project

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1.2 Register to Receive Emergency Alerts

The City of San Diego (City) utilizes Alert San Diego for its Community Emergency Notification System. Alert San Diego is a countywide standard system that is managed as a regional asset by the County of San Diego Office of Emergency Services. In the event of a wildfire within the City limits, the Incident Command (IC) or other City departments will contact the Police Department Communications Division. The communications center has the responsibility to request activation of the Alert San Diego system and release an emergency notification (San Diego 2010) to affected population. Therefore, residents of the Renzulli Estates residents are strongly advised to register their land lines, mobile phone numbers and email addresses with Reverse 9-1-1, Alert San Diego system (http://www.readysandiego.org/AlertSanDiego/) in order to receive emergency evacuation instructions. The Renzulli Estates Project (project) is part of the greater San Diego media market and the media outlets will also be a good source of information, via television and radio, on overall emergency situations and how residents should respond. In addition, the San Diego Emergency Alert System (EAS) is county-wide and broadcasts emergency information via two radio stations: KOGO AM 600 and KLSD AM 1360. Social media provides another outlet for news:

- https://twitter.com/cityofsandiego
- CityTV is another news sources available during an emergency and can be found online (http://granicus.sandiego.gov/MediaPlayer.php?publish_id=1648)
- Channel 24 - Cox Communications
- Channel 24 - Time Warner Cable
- Channel 99 - AT&T

1.3 Get Involved in Community Readiness

The Renzulli Estates residents are encouraged to form a volunteer Neighborhood Emergency Response Team with Community Emergency Response Team (CERT) experience (https://www.sandiego.gov/fire/services/cert). The Renzulli Estates Homeowner's Association (HOA) will organize annual evacuation public outreach for anyone interested from both communities, engage directly with organizations such as Fire Safe Council of San Diego County, as well as maintain a fire safe page on the community website, including this Emergency Evacuation Plan and links to important citizen preparedness information. This information will be made available to all residents from the project.

This evacuation plan is prepared specifically for the project and focuses on wildland fire evacuations, although many of the concepts and protocols will be applicable to other emergency situations. Ultimately, this plan should be used by the Renzulli Estates residents for awareness of evacuation approaches during wildfires and other similar emergencies. It is important for the residents to understand the importance of being prepared, so if/when the time comes where evacuation is necessary, they will be able to calmly implement their evacuation plan. Some actions the community residents can do in advance include:

- Follow the "Ready, Set, Go!" model developed for wildfire evacuations.
    - Create an escape plan from the residence, as well as an escape route once outside of the home.

- Know your available routes, stay informed and follow directions provided by credible sources.
- Do not rely on navigation apps that may inadvertently lead you toward an approaching fire.
- Create a car emergency kit, including cell phone charger, flashlight, jumper cables, water, and food.
- Gather important paperwork, including birth and marriage certificates, account documents, passports, Social Security cards, and any other important family photos or irreplaceable items and documents.
- As time allows, make sure to secure your home by locking all doors and windows, and unplugging electrical equipment, such as appliances and electronics.

Sample emergency preparedness resources available to the Renzulli Estates are provided in Appendix A (Resident "Ready, Set, Go!" Wildland Fire Action Plan) and Appendices B-1 through B-4 (Family Disaster Checklists and Communications Plans), and residents are encouraged to become familiar with the concepts detailed at the following websites:

"Ready, Set, Go!" Personal Action plan:
https://www.fire.lacounty.gov/wp-content/uploads/2014/02/RSG-Booklet.pdf

Red Cross Emergency Planning:
http://www.redcross.org/get-help/how-to-prepare-for-emergencies/make-a-plan

Hazardous Materials Emergency Preparedness:
https://www.ready.gov/hazardous-materials-incidents

Building a disaster kit:
http://www.redcross.org/get-help/prepare-for-emergencies/be-red-cross-ready/get-a-kit

Making a Plan Checklist:
https://www.ready.gov/make-a-plan

Family Communication Plan:
https://www.fema.gov/media-library-data/1440449346150-1ff18127345615d8b7e1effb4752b668/Family_Comm_Plan_508_20150820.pdf

1.4 Evacuation Plan Purpose and Limitations

Wildfire and other emergencies are often dynamic events and the need for evacuations are typically determined by on-scene first responders or by a collaboration between first responders and designated emergency response teams, including Office of Emergency Services and the IC established for larger emergency events. As such, and consistent with all emergency evacuation plans, this Emergency Evacuation Plan is to be considered a tool that supports existing pre-plans and provides for residents who are familiar with the evacuation protocol, but is subservient to emergency event-specific directives provided by agencies managing the event.

2 Background

This Renzulli Estates Wildfire Evacuation Plan was prepared based on the City's Emergency Operations Procedures (San Diego 2010), County of San Diego Emergency Operations Procedures (EOP), the Unified San Diego County Emergency Services Organization and County of San Diego Operational Area Emergency Operations Plan – Evacuation Annex.

To establish a framework for implementing well-coordinated evacuations, the City, like most California emergency operations agencies, has adopted evacuation procedures in accordance with the State of California's Standardized Emergency Management System (SEMS) and the National Incident Command System (NIMS). Large-scale evacuations are complex, multi-jurisdictional efforts that require coordination between many agencies and organizations. Emergency services and other public safety organizations play key roles in ensuring that an evacuation is effective, efficient, and safe.

Evacuation is a process by which people are moved from a place where there is immediate or anticipated danger, to a safer place, and offered temporary shelter facilities. When the threat passes, evacuees are able to return to their normal activities, or to make suitable alternative arrangements.

Evacuation during a wildfire is not necessarily directed by the fire agency, except in specific areas where fire personnel may enact evacuations on-scene. The City's Police Department or Fire-Rescue Department have primary responsibility for emergency evacuations. These agencies work closely within the Unified IC System, with the City's Emergency Operations Center (EOC) and County OES. To that end, the San Diego Fire-Rescue Department (SDFRD), Police Department, Public Works, Planning, Emergency Services Departments, and California Department of Transportation (Caltrans), amongst others, have worked as part of a Pre-Fire Mitigation Task Force to address wildland fire evacuation planning for City of San Diego.

Every evacuation scenario will include some level of unique challenges, constraints, and fluid conditions that require interpretation, fast decision making, and alternatives. For example, one roadway incident that results in blockage of evacuating vehicles may require short-term or long-term changes to the evacuation process. Risk is considered high when evacuees are evacuating late, and fire encroachment is imminent. This hypothetical scenario highlights the importance of continuing to train responding agencies, model various scenarios, educate the public, provide contingency plans, and take a very conservative approach to evacuation decision timelines.

Equally as important, the evacuation procedures should be regularly updated with lessons learned from actual evacuation events, as they were following the 2003, 2007, and 2014 San Diego County fires. The authors of this Emergency Evacuation Plan recommend that occasional updates are provided, especially following lessons learned from actual incidents, as new technologies become available that would aid in the evacuation process, and as changing landscapes and development patterns occur within and adjacent to the project area that may impact how evacuation is accomplished. At the time of this plan's preparation, there is no encompassing emergency evacuation plan available for the northern San Diego region. This Renzulli Estates Wildfire Evacuation Plan is consistent with the City evacuation planning standards and can be integrated into a

regional evacuation plan and other pre-plans when and if the area officials and stakeholders (CAL FIRE, SDFRD, OES, San Diego Sheriff's Department, SDCFA, and others) complete one.

As demonstrated during large and localized evacuations occurring throughout San Diego County and the City over the last 15 years, an important component to successful evacuation is early assessment of the situation and early notification via managed evacuation declarations. The City utilizes early warning and informational programs to help meet these important factors. Among the methods available to citizens for emergency information are radio, television, social media/internet, neighborhood City patrol car and aerial public address notifications, and Reverse 9-1-1 or Alert San Diego. The County of San Diego, in partnership with Blackboard Connect Inc., instituted this regional notification system that is able to send telephone notifications to residents and businesses within San Diego County impacted by, or in danger of being impacted by, an emergency or disaster. This system, called Alert San Diego, is used by emergency response personnel to notify homes and businesses at risk with information on the event and/or actions (such as evacuation, shelter-in-place, gas leak, missing person, etc.) they are advised to implement. The system utilizes the region's 9-1-1 database, provided by the local telephone company(ies), and thus is able to contact landline telephones whether listed or unlisted. It is TTY/TDD capable.

Please also note that the major fire events that have occurred in San Diego County in the past 17 years (including the Cedar Creek and Witch fires) have also resulted in substantial change in the individual and united approaches between City, County and State agencies, as well as substantial investment in fire-fighting resources. For example, San Diego County Fire Agencies and related partners have developed a robust ability to rationally predict wildfire movement. This is accomplished through pre-fire planning and fire behavior modeling, working with UCSD's WIFIRE lab advanced wildfire behavior projection technology, and SDG&E's nationally renowned weather system network. In addition, more than 500 million dollars has been invested to enhance the county's fire prevention, detection, response, suppression, and recovery capabilities since the 2003 Cedar Fire. These efforts have proven effective in managing and responding to wildfire events, such as was accomplished during the successfully managed 2018 Lilac Fire.

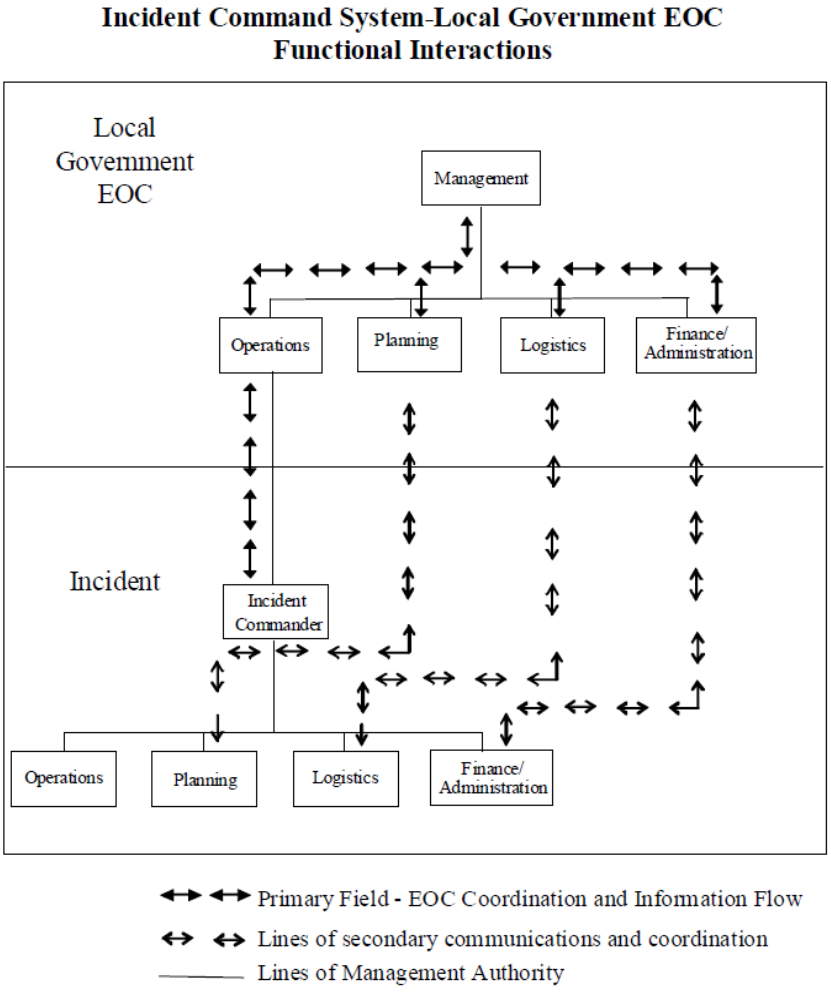
Because the system uses the 9-1-1 database, only landline numbers are in the system. If you have a Voice over Internet Protocol (VoIP) or cellular telephone and would like to be notified over that device, or if you would like an email notification, you must register those telephone numbers and/or email address for use by the system to receive voice, text, and email messages.

3 Evacuation Planning Summary

This Wildfire Evacuation Plan incorporates concepts and protocols practiced throughout the City and San Diego County. The City's EOP follows basic protocols set forth in the City's Operation Area Emergency Operations Plan and the California Master Mutual Aid Agreement, which dictate who is responsible for an evacuation effort and how regional resources will be requested and coordinated.

First responders are responsible for determining initial protective actions before EOCs and emergency management personnel have an opportunity to convene and gain situational awareness. Initial protective actions are shared/communicated to local EOCs and necessary support agencies as soon as possible to ensure an effective, coordinated evacuation. Figure 4 summarizes the functional interactions of local government EOCs under the Incident Command System.

Figure 4. Incident Command System Local Government EOC Functional Interactions



During an evacuation effort, the designated City Evacuation Coordinator is the Police Chief, who is also the Law Enforcement Coordinator, although several official City positions are allowed to declare evacuations. The

Evacuation Coordinator will be assisted by other law enforcement and support agencies. Law enforcement agencies, highway/road/street departments, and public and private transportation providers will conduct evacuation operations. Procurement, regulation, and allocation of resources will be accomplished by those designated. Evacuation operations will be conducted by the following agencies:

- City Police Department
- San Diego Fire and Rescue Department
- American Red Cross
- San Diego Humane Society
- San Diego County Department of Animal Services
- Department of Planning and Development Services
- Department of Environmental Services
- Department of Public Works
- Other City, County and state agencies, as needed

The following overview contains information from the San Diego County Evacuation Annex and is consistent with the City's EOP. A complete copy of the EOC can be downloaded here: https://www.sandiegocounty.gov/content/sdc/oes/emergency_management/oes_jl_oparea.html.

3.1 Evacuation Objectives

The overall objectives of emergency evacuation operations and notifications for the City of San Diego are to:

- Expedite the movement of persons from hazardous areas;
- Institute access control measures to prevent unauthorized persons from entering vacated, or partially vacated areas;
- Provide for evacuation to appropriate transportation points, evacuation points, and shelters;
- Provide adequate means of transportation for persons with disabilities, the elderly, other persons with access and functional needs, and persons without vehicles;
- Provide for the procurement, allocation, and use of necessary transportation and law enforcement resources by means of mutual aid or other agreements;
- Control evacuation traffic;
- Account for the needs of individuals with household pets and service animals prior to, during, and following a major disaster or emergency;
- Provide initial notification, ongoing, and re-entry communications to the public through the EOC; and
- Assure the safe re-entry of the evacuated persons.

The San Diego Police Department (SDPD) is the lead agency for evacuations of areas within the City, including the project site. The SDPD, as part of a Unified Command, assesses and evaluates the need for evacuations, and orders evacuations according to established procedures. Additionally, as part of the Unified Command, the SDPD identifies available and appropriate evacuation routes and coordinate evacuation traffic management with the Caltrans, the California Highway Patrol (CHP), the San Diego County Sheriff's Department (SDSD), other supporting agencies, and jurisdictions.

The decision to evacuate an area is not made lightly and there is a significant impact to public safety and the economy. The following process describes how emergency evacuation decisions are coordinated, allowing emergency managers and other supporting response organizations to make collaborative decisions.

3.2 Evacuation Coordination Process

If the emergency only impacts the City, the decision to evacuate will be made at the local jurisdiction level with regional collaboration considerations.

a. Based on the information gathered, local jurisdictions will generally make the determination on whether to evacuate communities as the need arises, on a case-by-case scenario basis.
b. The decision to evacuate will depend entirely upon the nature, scope, and severity of the emergency; the number of people affected; and what actions are necessary to protect the public.
c. Local jurisdictions may activate their EOC and conduct evacuations according to procedures outline in their EOP.
d. The EOC may make recommendations on whether a community should evacuate and may help coordinate the evacuation effort.
e. The Evacuation Annex is automatically activated when an incident occurs requiring an evacuation effort that impacts two or more jurisdictions.
f. The EOC will coordinate with fire, law enforcement, public health, and other relevant support agencies to obtain recommendations on protective actions.
g. The EOC will coordinate with jurisdictional emergency management personnel and other public safety personnel. The Policy Group within the EOC will coordinate with other officials from jurisdictions within the City's Operational Area (OA) to identify command decisions, including:
    i. Gaining regional situational awareness
    ii. Determining response status
    iii. Reviewing status of initial protective actions
    iv. Considering additional protective actions
    v. Evaluating public information needs
    vi. Determining next steps
    vii. Establishing a regular time to share updates
h. The EOC will coordinate emergency public information to citizens in accordance with established procedures.
i. The EOC may support coordinating the evacuation response according to the EOP, including:
    i. Providing transportation for those who need assistance
    ii. Providing support for people with disabilities and other access and functional needs
    iii. Coordinating and communicating with the private sector, community groups, and faith based organizations to utilize their services and resources available to support the response
    iv. Providing shelter for evacuees

3.3 Evacuation Response Operations

An evacuation of any area requires significant coordination among numerous public, private, and community/non-profit organizations. Wildfire evacuations will typically allow time for responders to conduct evacuation notification in advance of an immediate threat to life safety; giving residents time to gather belongings and make arrangements for evacuation. On the other hand, other threats, including wildfires igniting nearby, may occur with little or no notice

and certain evacuation response operations will not be feasible (for example, establishing contra flow requires between 24 to 72 hours to be implemented; a no-notice event will not allow for contra flow to be established). Evacuation assistance of specific segments of the population may also not be feasible.

3.3.1 Evacuation Points and Shelters

When the SDPD or Incident Command (IC) implements an evacuation order, they coordinate with the responding fire and rescue agency, the EOC, and others, to decide on locations to use as a Temporary Evacuation Point (TEP). The City's Police Department Communications Division will utilize the Alert San Diego system to direct evacuees to the established TEPs or shelters. These evacuation points will serve as temporary safe zones for evacuees and will provide basic needs such as food, water, and restrooms. Possible shelters and assembly areas that can provide at least short-term refuge and that would be designated by emergency managers during an evacuation include:

- EB Scripps Elementary School
- Dingeman Elementary School
- Scripps Ranch Marketplace
- Scripps Ranch High School
- San Diego Miramar College

Other refuge sites are available within urbanized areas of Poway, Sabre Springs, Scripps Miramar Ranch, Rancho Penasquitos and developed communities primarily to the north, south, and west of the Miramar Ranch North communities, including the project.

If there are residents unable to evacuate or in need of transportation assistance to get to a TEP or shelter, the SDPD or IC may establish transportation points to collect and transport people without transportation resources to evacuation points. These transportation points should be large, well-known sites such as shopping centers, libraries, and schools. Transportation should be accessible to all populations, including people with disabilities and other access and functional needs.

3.3.2 Pet Evacuations

The Pets Evacuation and Transportation Standards Act of 2006 amends the Stafford Act, and requires evacuation plans to take into account the needs of individuals with household pets and service animals, prior to, during, and following a major disaster or emergency.

The San Diego County Department of Animal Services (DAS) has plans in place to transport and shelter pets in a disaster under Annex O of the OA EOP, including the Animal Control Mutual Aid Agreement. Animal Control Officers, the San Diego Humane Society, and private animal care shelters will assist in the rescue, transport, and sheltering of small and large animals. In addition, potential volunteer resources and private groups are identified and tracked in WebEOC by the County. Only non-emergency resources and personnel, such as public and private animal services agencies, will be used to rescue and transport animals during an evacuation effort.

In most cases, DAS and the OA EOC will coordinate and attempt to co-locate animal shelters with people shelters.

3.3.3 Shelter-in-Place (County EOC Discussion)

As stated in the County EOC, sheltering-in-place is the practice of going or remaining indoors during or following an emergency event. This procedure is recommended if there is little time for the public to react to an incident and it is safer for the public to stay indoors for a short time rather than travel outdoors. Sheltering-in-place also has many advantages because it can be implemented immediately, allowing people to remain in their familiar surroundings, and providing individuals with everyday necessities such as telephone, radio, television, food, and clothing. However, the amount of time people can stay sheltered-in-place is dependent upon availability of food, water, medical care, utilities, and access to accurate and reliable information.

The decision on whether to evacuate or shelter-in-place is carefully considered with the timing and nature of the incident (San Diego County 2014). Sheltering-in-place is the preferred method of protection for people that are not directly impacted or in the direct path of a hazard. This will reduce congestion and transportation demand on the major transportation routes for those that have been directed to evacuate by police or fire personnel. Both the Scripps Miramar Ranch Community and the Miramar Ranch North Community include homes built in the 1990s and are in varying states of ignition resistance. Unlike most new master planned communities that incorporate ignition-resistant construction and provide defensibility throughout (like the project will), responding fire and law enforcement personnel may not be able to direct residents to temporarily refuge in their homes within the Scripps Miramar Ranch Community and the Miramar Ranch North Community, except for residents of the project. Homes that are not built to the ignition-resistant standards can be retrofitted to increase their ability to withstand wildfire and ember storms by focusing on roofs, windows, walls, vents, appendages and defensible space. Attention to these components of a home's fire protection system is recommended for existing Scripps Miramar Ranch Community and Miramar Ranch North Community homeowners.

Options when evacuation is not considered feasible that may be available to responding fire and law enforcement personnel may include temporary refuge/sheltering on site where residents are instructed to remain in their homes while firefighters perform their structure protection function if it is considered unsafe to evacuate. This approach is consistent with San Diego County's (San Diego County 2014) evacuation approach which states "Due to the nature of the threats requiring an evacuation, there may be insufficient time to perform an early evacuation of the area and shelter-in-place instructions may need to be provided." Currently, neither the Scripps Miramar Ranch Community nor the Miramar Ranch North Community include attributes that would allow a community-wide sheltering in place option, due primarily to the older construction methods and codes that guided construction at the time the homes were built. The structures proposed under the project, including the proposed homes would conform to the ignition-resistant building codes codified in Chapter 7A of the California Building Code, would be ignition-resistant, defensible and designed to require minimal firefighting resources for protection, which enables this contingency option when it is considered safer than evacuation.

4 Renzulli Estates Community Evacuation Road Network

As evidenced by mass evacuations during the 2007 Witch Fire along with other San Diego County evacuations, even with roadways that are designed to the code requirements, it may not be the best response, to move large numbers of persons at the same time as part of a mass-evacuation. Instead, informed, phased evacuations enable more streamlined evacuations where those at highest risk are moved first. Road infrastructure throughout the United States, and including San Diego County, is not designed to accommodate a short-notice, mass evacuation without some level of congestion (FEMA 2008). The need for evacuation plans, pre-planning, and tiered or targeted and staggered evacuations becomes very important for improving evacuation effectiveness. Among the most important factors for successful evacuations in urban settings is control of intersections downstream of the evacuation area. If intersections are controlled by law enforcement, barricades, signal control, and other means, potential backups and slowed evacuations can be minimized. Multiple evacuation points enable more evacuees the ability to evacuate with less impact on roadways.

As the project is located in the western most portion of the Scripps Miramar Ranch Community Plan Area, project traffic would evacuate west through the Miramar Ranch North community; therefore, this analysis only considers the existing population of the Miramar Ranch North Community Plan Area plus the proposed project population. If a wildfire starts in the nearest open space area (Van Dam Open Space) and is fanned by Santa Ana winds out of the northeast, the fire would likely tend to blow toward the southwest, west or south away from the project. Wildfires occurring under typical weather conditions may result in fire that burns toward the project and Miramar Ranch North Community, but the surrounding terrain does not support aggressive runs at the community, much of which is separated from the open space by developed areas and wildfires during typical weather conditions are less aggressive and more manageable, rarely resulting in large evacuations. As conducted in past wildfires, an early evacuation of the area may occur several or more hours prior to actual threatening conditions at the project or Miramar Ranch North Community, depending on conditions and fire spread projections.

The project is located within an area that is subject to occasional wildfires, but based on the residential uses to the southwest, east, and north and open space areas to the southeast, and more distantly to the north and east, the wildfire potential within the project structures' direct sphere of influence is considered minimal and direct exposure to unmaintained fuels is limited. Similarly, fire intensity would be expected to be low in areas outside of the Van Dam Open Space, Sycamore Canyon Preserve, and natural hillside unmaintained fuels. This reduced fire behavior would be expected to facilitate evacuations as well as potential on-site sheltering for properly constructed residences, if considered safer than a short-notice evacuation.

This approach is consistent with San Diego County's (2018) Evacuation approach which states, "[The shelter-in-place] procedure is recommended if there is little time for the public to react to an incident and it is safer for the public to stay indoors for a short time rather than travel outdoors." Although not a designated shelter-in-place community, the project's structures would include the same level of ignition resistance and landscape maintenance, are defensible against the short duration wildfire exposure anticipated, and are designed to require minimal resources for protection, which enables these contingency options that may not be available to other vicinity communities (i.e. Miramar Ranch North Community).

Among the most important factors for successful evacuations at the project site is control of intersections downstream of the evacuation area. If intersections are controlled by law enforcement, barricades, signal control, firefighters or other means, potential backups and slowed evacuations can be minimized. Another important aspect of successful evacuation is a managed and phased evacuation declaration. Evacuating in phases, based on vulnerability, location, or other factors, enables the subsequent traffic surges on major roadway to be smoothed over a longer time frame and can be planned to result in traffic levels that flow better than when mass evacuations include large evacuation areas at the same time. This plan defers to Law Enforcement and OES to appropriately phase evacuations and to consider the vulnerability of communities when making decisions. For example, newer development in the area, including the proposed protected structures, will offer a high level of fire safety on site, along with open-air options for firefighter safety zones and temporary on-site refuge as a contingency due to the setbacks from the nearest wildland areas.

Consistent with the County of San Diego evacuation planning annex (2018), major ground transportation corridors in the area will be used as primary evacuation routes during an evacuation effort. The road systems were evaluated to determine the best routes for fire response equipment and "probable" evacuation routes for relocating people to designated safety areas. The primary roadways that would be used for evacuation from the project are:

- Scripps Poway Parkway
- Spring Canyon Road
- Scripps Ranch Boulevard
- Mira Mesa Boulevard, and
- I-15

These roads provide access to urbanized areas and major traffic corridors including I-15 and SR-56.
During a project emergency evacuation, the primary and secondary roadways may be providing citizen egress while responding emergency vehicles are inbound. Because the required fire access roads throughout the area are designed to meet or exceed County of San Diego Consolidated Fire Code, including 24 foot-wide, unobstructed roadways, adequate parking, turning radius, grade maximums, and roadside fuel modification zones, potential conflicts that could reduce the roadway efficiency are minimized, allowing for smoother evacuations.

The primary evacuation routes are accessed from internal roadways, which connect to ingress/egress roads (i.e. Cypress Canyon Road, Cypress Canyon Park Drive) that in turn intersect with primary evacuation routes (i.e. Scripps Poway Parkway, Spring Canyon Road). There are two primary project ingress/egress routes:

Primary Ingress/Egress Route:

a. Scripps Poway Parkway west to I-15
b. Spring Canyon Road west to Scripps Ranch Boulevard to Mira Mesa Boulevard to I-15.

Depending on the nature of the emergency requiring evacuation, it is anticipated that the majority of the project would be directed to one of two major arterial roadways (Scripps Poway Parkway or Spring Canyon Road) and be directed westbound toward I-15. These are the most direct routes out of the project area. Evacuation movement will be determined primarily by the fire's location, its spread rate direction, and time available before it could threaten evacuation routes and traffic levels. If less time is available, or one or more potential routes are considered

unsafe, fire and law enforcement officials may direct all traffic in one direction and may consider directing some area communities or the project site's residents and guests, to temporarily refuge in protected structures.

The large developed and converted landscapes and lack of uninterrupted open space through the developed portions of this area significantly reduces the potential for dangerous evacuation conditions and evacuee exposure to wildfire.

Evacuation Alternatives

Fires occurring on typical (non-extreme) fire weather days, when humidity is higher and winds are not as high or gusty, have been very successfully controlled at small sizes within minutes of ignition and would not typically trigger a need to evacuate the project or surrounding neighborhoods. Partial evacuation of some neighborhoods could be an option in on-shore wind wildfire, particularly those homes that are closest to the native fuels in the surrounding open space, such as homes north of Scripps Poway Parkway or southeast of Spring Canyon Road/Pomerado Road.

If a wildfire ignited closer to the Miramar Ranch North neighborhoods during weather that facilitates fire spread, where multiple hours are not available for evacuation and placing residents on the roads could expose them to wildfire, an alternative evacuation approach would need to be explored. It is preferred to evacuate long before a wildfire is near, and in fact, history indicates that most human fatalities from wildfires are due to late evacuations when they are overtaken on roads. Therefore, it is prudent to consider a contingency option of temporary on-site refuge. For example, if a wildfire is anticipated to encroach upon the community or Scripps Poway Parkway, Spring Canyon Road or Scripps Ranch Boulevard in a timeframe that is shorter than would be required to evacuate all residents, then evacuations could be significantly impacted and the ability to temporarily shelter residents in their homes is a prudent contingency.

4.1 Roadway Capacities and Evacuation Times

Roadway capacity represents the maximum number of vehicles that can reasonably be accommodated on a road. Roadway capacity is typically measured in vehicles per hour and can fluctuate based on the number of available lanes, demand surges, number of traffic signals, construction activity, accidents, and obstructions as well as positively by traffic control measures. The estimated capacities for existing roads are provided in Table 1.

Each roadway classification has a different capacity based on level of service, with freeways having the highest capacities. Based on Synchro software analysis using the Highway Capacity Manual methodology for calculating adjusted saturation flow rates, roads that would be the most likely available to the project and Miramar Ranch North Community residents were analyzed and the hourly capacities are presented in Table 1. As the project is located in the western most portion of the Scripps Miramar Ranch Community Plan area, project traffic would evacuate west through the Miramar Ranch North Community; therefore, analysis only considers the existing population of the Miramar Ranch North Community Plan area plus the proposed project population.

Table 1. Existing Community Roadway and Freeway Estimated Hourly Vehicle Capacities

Roadway	Segment	# Lanes[2]	Estimated Roadway and Freeway Capacity[1]				
			East	West	North	South	Total
Interstate I-15[3]	North and south of Scripps Poway Parkway	6			14,400	14,400	28,800
Cypress Canyon Road	Scripps Poway Parkway to Angelique	1	1,500	1,500			3,000
Cypress Canyon Road	Cypress Canyon Park Drive to existing terminus	1	1,500	1,500			3,000
Cypress Canyon Park Drive	Cypress Canyon Road to Spring Canyon Road	1			1,500	1,500	3,000
Angelique Street	Cypress Canyon Road to	1			1,500	1,500	3,000
Spring Canyon Road	Cypress Canyon Park Drive to Scripps Ranch Boulevard	2	3,000	3,000			6,000
Scripps Ranch Boulevard	Spring Canyon Road to Mira Mesa Boulevard	2	3,000	3,000			6,000
Pomerado Road	Legacy Road to Scripps Poway Parkway	2/1			3,000	1,500	4,500
Pomerado Road	Cypress Canyon Park Drive to Legacy Road	2			3,000	3,000	6,000
Scripps Poway Parkway	Pomerado Road to I-15	2	3,000	3,000			6,000
Mira Mesa Boulevard	Scripps Ranch Boulevard to I-15	3	4,500	4,500			9,000

Source: LLG 2021, Appendix C.

Notes:

[1] Estimated vehicle traffic per hour, per Synchro, using the current Highway Capacity Manual methodology for calculating adjusted saturation flow rates, and are discounted for various assumed traffic-related slowing. This evacuation plan assumes that law enforcement personnel are controlling downstream intersections to maintain traffic flow out of the area. If traffic flow is not maintained, then the estimated evacuation times would be expected to increase, potentially substantially, as is the case in any urban area.

[2] This is the number of lanes traveling in each direction.

[3] Does not include HOV lanes (based on 5 travel lanes in each direction at 10% during peak time).

As the project is located in the western most portion of the Scripps Miramar Ranch Community Plan Area, project traffic would evacuate west through the Miramar Ranch North community; therefore, the data provided in this table considers the existing population of the Miramar Ranch North Community Plan Area plus the proposed project population.

Using these averages, the length of time it will take for an area to evacuate can be estimated by dividing the population by the average vehicle occupancy and then dividing by the roadway capacity (Figure 5). Table 2 provides a summary of the calculated number of evacuating vehicles and assumptions for the existing Miramar Ranch North Community and the proposed project's populations. The populations include:

- Single- and multi-family residences[1] – 12,387 residents
- Dingman Elementary School – 809 students and staff
- EB Scripps Elementary School – 810 students and staff
- Commercial and Industrial/Office Park – 4,233 parking spaces[2]

Figure 5 Evacuation Time Calculation

$$\text{Evacuation Time} = \frac{\left(\frac{\text{Evacuation Population}}{\text{Average Vehicle Occupancy}}\right)}{\text{Roadway Capacity}}$$

The existing Miramar Ranch North Community is estimated to include 2.86 persons per dwelling unit (SANDAG Data Surfer 2020a), which equals approximately 12,387 persons. The project proposes a total of 112 residential units, which is projected to include 2.78 persons per dwelling unit per estimate for Scripps Miramar Ranch (SANDAG Data Surfer 2020b), which totals 312 persons[3]. The combined population for the project and Miramar Ranch North Community would be 12,699 persons. During an evacuation, it is calculated that an average of 2 persons per vehicle would evacuate, resulting in up to 6,354 vehicles potentially evacuating in a major incident that required full evacuation of Miramar Ranch North Community and the project. However, to continue this plan's conservative approach, the evacuation travel time calculation is based on every residence evacuating two vehicles. This results in up to 8,662 vehicles generated from Miramar Ranch North Community residential units and 224 vehicles from the project, totaling up to 8,886 vehicles.

Within Miramar Ranch North Community there are several non-residential land uses, including commercial and industrial-office (4,233 parking spaces), Dingeman Elementary School (13 busses and 34 vehicles), and EB Scripps

1 Per the Miramar Ranch North (MRN) Community Plan current zoning allows for 4,589 dwelling units within the MRN community; however, per SANDAG the total number of existing housing units is 4,331. Using SANDAG data, it is estimated that there are approximately 2.86 persons per dwelling unit within the MRN Community Plan area); therefore, it is estimated that the current population of the MRN community is 12,387.

2 The total number of parking spaces was estimated using Google Maps, a rough count was completed for Scripps Ranch Marketplace, the commercial-office center east of I-15 and west of Scripps Ranch Blvd., and the commercial-office uses along Scripps Summit Drive.

3 Using SANDAG data for the Scripps Miramar Ranch (SMR) Community Plan area, it is estimated that there are 2.78 persons per household.

Elementary School (13 busses and 30 vehicles). For commercial and industrial-office uses within the Miramar Ranch North Community, it is assumed that some portion of these populations would be individuals from the Miramar Ranch North Community; therefore the total number of vehicles each use is generating can be reduced to avoid redundancy in calculating the worst-case evacuation conditions. For the purposes of this evacuation plan, based on an educated assumption using the estimated study area population density, the total number of parking spaces will be reduced 20% (847 parking spaces) to account for individuals working or visiting commercial or industrial-office uses from within the Miramar Ranch North Community.

Further, according to a 2013 San Diego Association of Governments (SANDAG) Employee Commute Survey, approximately 13% of respondents traveled five miles or less to work[4]. If applied to the Miramar Ranch North Community, for the purposes of this evacuation plan, an estimated 1,610 residents commute five miles or less. The Industrial-Offices uses in this community support approximately 6,232 employees, per the Miramar Ranch Community Plan. For the purposes of this evacuation plan, it is assumed that 13% of the total number of employees from the Industrial-Office uses would be from within the Miramar Ranch North Community; therefore the population of these uses from outside of the Miramar Ranch North Community would be 1,776.

This increases the worst-case population to 17,870 persons and number of evacuating vehicles to 10,752, as depicted in Table 2.

The number would likely be lower, as some families would likely drive in one vehicle versus in multiple vehicles and, depending on the time of day, many of these vehicles may already be off-site, such as if a fire occurred during typical work hours or if after hours, schools and industrial/office spaces would not be at maximum capacity. Further, according to SANDAG, the COVID pandemic has changed regional commuting patterns, specifically reducing peak period travel times across the region in 2020. While the stay-at-home order is no longer in effect, using data collected from the 2021 San Diego Region Business Survey, SANDAG states that 40% of San Diego County businesses reported they would offer remote work to at least one employee, one day a week. This is up from 27% pre-pandemic, but down from the 47% who did so during the pandemic (SANDAG 2021). Therefore, the number of individuals commuting from outside the region are likely lower than the worst-case scenario presented in Table 2.

[4] SANDAG, 2013. Employee Commute Survey. Available at: https://www.sandag.org/uploads/publicationid/publicationid_1878_18068.pdf

Table 2. Evacuation Vehicle Estimates and Anticipated Distribution Assuming 100 Percent Occupancy (Worst-Case Conditions)

	Existing MRN Community	Renzulli Estates (Project)	Dingeman Elementary	EB Scripps Elementary	Commercial/ Industrial-Office	Combined
Dwelling Units (residences)	4,331	112	N/A	N/A	N/A	4,443
Persons per Unit	2.86	2.78	N/A	N/A	N/A	-
Calculated Population	12,387	312	809	810	3,552[a]	17,870
Vehicles per Unit	2	2	13 Busses and 34 staff vehicles[b]	13 Busses and 30 staff vehicles[b]	N/A	-
Parking Spaces	N/A	N/A	N/A	N/A	4,233	4,233
Worst-Case Number of Vehicles Evacuating	8,662	224	47	43	1,776	10,752

Sources: SDUSD 2022a, SDUSD 2022b, SANDAG Data Surfer 2020a

[a] Estimated at 2 persons per vehicle

b This assumes each bus transports up to 60 persons and half of the estimated faculty and staff would evacuate in a personal vehicle.

4.1.1 Evacuation Time Discussion

For purposes of determining an appropriate discount on the travel time vehicle capacity estimate, it is important to know the potential worst-case evacuation population (number of vehicles) that could occur. Discounting the maximum vehicle capacity essentially slows down the calculated travel times, imitating congested roadways and/or bottleneck intersections. The project will construct the connection of Cypress Canyon Road between Angelique Street and Cypress Canyon Park Drive. No changes to the existing public roadways are proposed.

Based on the project's estimated potential 224 vehicles and utilizing a vehicle roadway capacity of 1,500 vehicles per hour during evacuation, it is estimated that the last vehicle can be off the project site and onto one of the primary evacuation roadways (Scripps Poway Parkway, Spring Canyon Road/Pomerado Road) in just under 9 minutes of wheels rolling. Traffic moving off the project site would either go north along Cypress Canyon Road to Scripps Poway Parkway or south along Cypress Canyon Road to Cypress Canyon Park Drive to Spring Canyon Road. Vehicles traveling south would travel approximately 3.45 miles to access the I-15 from Mira Mesa Boulevard, while vehicles traveling north would travel approximately 2.00 miles to access the I-15 from Scripps Poway Parkway. Traveling at approximately 10 mph, assuming all other populations are simultaneously evacuating west would require approximately 215 minutes (10,752 vehicles/3,000 vehicles per hour) and would not interfere with inbound emergency response vehicles as one lane inbound remains available along each route.

4.1.2 Mass Evacuation Vehicle Traffic

The Miramar Ranch North community is immediately west of the project site, with a total of 4,589 dwelling units permitted within the Community Plan Area. If all permitted units are constructed within the Community Plan Area there will be a maximum of 9,178 The Miramar Ranch North Community is immediately west of the project site, with a total of 4,589 dwelling units permitted within the Plan area. If all permitted units are constructed within the Community Plan area there will be a maximum of 9,178 vehicles evacuating the existing community, estimated at two cars per dwelling unit. Within the Miramar Ranch North Community there are also commercial and industrial-office uses, which total approximately 4,233 parking spaces. Additionally, there are a total of approximately 1,619 students and teachers reside at the two schools within Miramar Ranch North Community, many of which reside within the plan area, so do not represent additional population. Evacuations of this population would include buses and passenger vehicles with a total of up to 26 buses and an estimated 64 vehicles. This project's additional vehicle volume (224 vehicles) would not be expected to materially impact evacuation of the surrounding area, as the project would only increase evacuation time by approximately 9 minutes as detailed in Table 5, below.

During a large wildfire moving from east to west, it is most likely, that evacuations would be directed west along Scripps Poway Parkway and Scripps Ranch Boulevard via Spring Canyon Road, depending on the fire location and movement. The vehicle capacity estimates utilized for this evacuation plan are based on Synchro software, using the current Highway Capacity Manual methodology for calculating adjusted saturation flow rates, and are discounted for various assumed traffic-related slowing, such as higher volume and downstream bottlenecks (LLG 2021); therefore, the discounted vehicle capacity (3,000 vehicles per hour with approximately half of the vehicles traveling north and the other half traveling south along Scripps Poway Parkway, per Table 1) includes capability to absorb additional vehicles.

This evacuation plan assumes that law enforcement personnel are controlling downstream intersections to maintain traffic flow out of the area. If traffic flow is not maintained, then the estimated evacuation times would be

expected to increase, potentially substantially, as is the case in any urban area. Additionally, this analysis assumes that all existing populations within Miramar Ranch North Community and the proposed project are evacuating simultaneously.

4.1.3 Potential for Project Evacuation Impact on Existing Conditions

The potential occurrence of a large evacuation event including evacuation of existing populations is minimal, but possible. In this case, the existing populations would be associated with Miramar Ranch North Community residences, Dingeman Elementary, EB Scripps Elementary, Commercial and Industrial-Office uses.

As mentioned, this analysis caps the evacuation route traffic capacity at 1,500 vehicles per hour on internal roads and 3,000 vehicles per hour on the major evacuation route roadways (Scripps Poway Parkway, Spring Canyon Road and Scripps Ranch Boulevard) in each direction. This capacity is lower than each travel lane could support under ideal conditions but is utilized as a method to reflect evacuation conditions, where there may be a traffic surge that slows vehicle speeds. Understanding the speed vehicles would travel to support 1,000 or 3,000 vehicles per hour provides additional supporting context. If the average vehicle is approximately 16 feet long, and allowing approximately 10 feet between vehicles (26 total feet per vehicle) for 1,000 vehicles per hour and 15 feet between vehicles (31 total feet per vehicle) for 3,000 vehicles per hour, an average travel speed of approximately 10 or 15 mph would enable 2,000 or 3,000 vehicles to pass a given point every hour, respectively. This is calculated by the following:

- 1,500 vehicles per hour = 25 vehicles per minute = 1 vehicle every 7.4 seconds
- 5 mph = 7.35 feet per second (1 mph = 1.47 feet per second)

Therefore, at 7.35 feet/second x 3.6 seconds = 26.5 feet. Each vehicle (16 feet + 10 feet = 26 feet) is allotted 3.6 seconds to pass a given point. In order for 1,000, 2,000, or 3,000 vehicles to pass that given point, a speed of 4.9, 9.8 and 14.8 mph is necessary, respectively, per Table 3. The average human walking speed is around 3 mph.

Table 3. Vehicle Speeds Based on Road Capacity

Vehicles per hour	Vehicles per minute	Seconds for a vehicle (26') to pass a given point	Feet per second for a vehicle to pass a given point	mph for a vehicle to pass a given point
1000	16.67	3.60	7.35	4.9
1500	25	2.40	11.03	7.4
2000	33.33	1.80	14.70	9.8
3000	50	1.20	22.05	14.8

Therefore, the following travel time and evacuation estimates are not reliant on unrealistic vehicle speeds in order to achieve the use of 1,500 and up to 3,000 vehicles per hour capacity and are representative of congested roadways that can occur during evacuations, especially the initial phase where traffic surges are common. It is likely

that more than 3,000 vehicles per hour would be possible on Scripps Poway Parkway, Spring Canyon Road or Scripps Ranch Boulevard with law enforcement traffic control.

Based on the factors and assumptions previously detailed regarding evacuation routes, and incorporating standard pre-evacuation timeframes and the evacuation route estimates detailed in Table 4, it is estimated that the existing condition would see all evacuating traffic from Miramar Ranch North Community, commercial and industrial-office uses, Dingeman Elementary and EB Scripps Elementary via Scripps Poway Parkway, or Scripps Ranch Boulevard via Spring Canyon Road. With the project, the same traffic conditions are expected, but the project's traffic would also be added to the formula. The following scenarios describe the most likely and worst-case evacuation routes and usage during an evacuation event:

Scenario 1 (Existing Condition): In this scenario, half of all existing evacuation traffic would use Scripps Poway Parkway to I-15 and the other half would use Spring Canyon Road to Scripps Ranch Boulevard to Mira Mesa Boulevard to evacuate.

Scenario 2 (Exiting Condition + Project): In this scenario, half of all existing plus project evacuation traffic would use Scripps Poway Parkway to I-15 and the other half would use Spring Canyon Road to Scripps Ranch Boulevard to Mira Mesa Boulevard to evacuate.

Scenario 3 (Exiting Condition + Project): In this scenario, all existing plus project evacuation traffic would use Scripps Poway Parkway to I-15 to evacuate.

Scenario 4 (Exiting Condition + Project): In this scenario, all existing plus project evacuation traffic would use Spring Canyon Road to Scripps Ranch Boulevard to Mira Mesa Boulevard to evacuate.

Table 4. Evacuation Route Usage

	Existing Condition (Scenario 1)		Existing Conditions + Project (Scenario 2)		Existing Conditions + Project (Scenario 3)		Existing Conditions + Project (Scenario 4)	
Evacuation Route using;	**Percent of Vehicles**	**Total Vehicles**	**Percent of Vehicles**	**Total Vehicles**	**Percent of Vehicles**	**Total Vehicles**	**Percent of Vehicles**	**Total Vehicles**
Scripps Poway Parkway to I-15	50	5,264	50 (EC) / 50 (P)	5,264 (EC) / 112 (P)	100 (EC) /100 (P)	10,528 (EC) / 224 (P)	-	-
Spring Canyon Road to Scripps Ranch Boulevard to Mira Mesa Boulevard to I-15	50	5,264	50 (EC) / 50 (P)	5,264 (EC) / 112 (P)	-	-	100 (EC) /100 (P)	10,528 (EC) / 224 (P)
Total	**100**	**10,528**	**100**	**5,264+ 5,264+ 112+**	**100**	**10,528+ 224 =10,752**	**100**	**10,528+ 224 =10,752**

Table 4. Evacuation Route Usage

	Existing Condition (Scenario 1)		Existing Conditions + Project (Scenario 2)		Existing Conditions + Project (Scenario 3)		Existing Conditions + Project (Scenario 4)	
Evacuation Route using;	Percent of Vehicles	Total Vehicles	Percent of Vehicles	Total Vehicles	Percent of Vehicles	Total Vehicles	Percent of Vehicles	Total Vehicles
				112 =10,752				

Based on the preceding assumptions and the travel time formula, the time estimates for the existing condition and the project scenario are summarized in Table 5. As noted, there is virtually no change in overall travel time in these region wide evacuation travel time scenarios. This is due to the relatively small number of additional vehicles, approximately 3%, that would be generated by the project.

Table 5. Project Evacuation Travel Timeframes*

Evacuation Route: Scenario	1. Existing Cond.	2. Existing Cond. + Project	3. Existing Cond. + Project	4. Existing Cond. + Project	Minimum Road Capacity (vehicles per hour)	Existing Cond. Estimated Evacuation Travel Timeframe***	Existing Cond. + Project Estimated Evacuation Travel Timeframe***	Travel Time Increase with Project
Scripps Poway Parkway to I-15	5,264	5,264 (EC) / 112 (P)	10,528 (EC) / 224(P)	-	1,500	10,528 vehicles 7.02 hrs or 421.2 min	10,752 vehicles 7.17 hrs or 430.2 min	0.15 hrs or 9 min
Spring Canyon Road to Scripps Ranch Boulevard to Mira Mesa Boulevard to I-15	5,264	5,264 (EC) / 112 (P)	-	10,528 (EC) / 224 (P)	1,500	10,528 vehicles 7.02 hrs or 421.2 min	10,752 vehicles 7.17hrs or 430.2 min	0.15 hrs or 9 min
Total Vehicles	10,528	10,752	10,752	10,752	NA	NA	NA	NA

* Includes "wheels rolling" where all persons have left their home. Does not include notification, mobilization and travel out of the area

** Assumes worst-case scenario where only one evacuation route available (e.g., all traffic is directed to Scripps Poway Parkway)

*** Estimated evacuation travel timeframe is calculated by dividing the maximum number of vehicles using each evacuation route by the route's lowest vehicle capacity. The longest evacuation route timeframe is used to represent the overall travel time.

The project evacuation scenario results in a worst-case calculated 3.58 hours or 214.8 minutes travel time to fully evacuate all studied populations. With the project, there is an increase in the calculated evacuation travel time of up to an estimated 9 minutes for all evacuation routes.

This travel time calculation is conservative in both the number of vehicles evacuating and the number of vehicles per hour that can be accommodated.

4.1.3.1 Project Evacuation Impact Analysis

As noted in Table 5, evacuation traffic generated by the Project would not significantly increase the average evacuation travel time as compared to the existing condition. Although there is a potential increase in evacuation travel times of approximately 9 minutes for existing communities. In a likely evacuation scenario, existing residents east of the Project site would be located downstream of Project traffic because they are closer to the evacuation routes and destinations. They would thus be able to safely evacuate prior to Project traffic reaching the same location, followed by the evacuation of less-at-risk Project traffic.

Study of evacuation timeframes and potential increases in evacuation time with a proposed project are relatively new CEQA focus areas. Public safety, not time, is generally the guiding consideration for evaluating impacts related to emergency evacuation. Consistent with CEQA Guidelines Appendix G, a Project's impact on evacuation is significant if the Project will significantly impair or physically interfere with implementation of an adopted emergency response or evacuation plan.

In any populated area, safely undertaking large-scale evacuations may take several hours or more and require moving people long distances to designated areas. Further, evacuations are fluid and timeframes may vary widely depending on numerous factors, including, among other things, the number of vehicles evacuating, the road capacity to accommodate those vehicles, residents' awareness and preparedness, evacuation messaging and direction, and on-site law enforcement control. The "Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects Under the California Environmental Quality Act" guidance from the California Office of the Attorney General suggests that jurisdictions set benchmarks of significance based on past successful evacuations or on those from communities in similar situations.

A recent study titled "Review of California Wildfire Evacuation from 2017 to 2019 " provides more insights on the topic. This research involved interviews with 553 individuals (297 evacuees affected by various fires) including the Creek Fire, Rye Fire, Skirball Fire, and Thomas Fire. The study aimed to understand the decision-making processes of these individuals during the fires, such as whether to evacuate or stay, when to leave, the paths taken, chosen shelters, destinations, and modes of transportation. According to this research, the time it took for evacuations ranged from under 30 minutes to over 10 hours. From this dataset , the average evacuation time for the Creek Fire was found to be 3 hours and 40 minutes, involving 115,000 people . For the Thomas Fire, the average time was 4 hours and 25 minutes, impacting 104,607 individuals.

California fire and law enforcement agencies have integrated training, experience, and technology to assist in successful evacuations, which focus on moving persons at risk to safer areas before a wildfire encroaches on a populated area. Timeframes for moving people vary by site specifics, population, road capacities and other factors and there is no one threshold that would be appropriate to all locations. There are no established thresholds for evacuation times for this Project or at the time of this plan's preparation, for any California community, to the knowledge of the authors. This is primarily because every location and fire scenario are unique. While it may take

one community 20 minutes to evacuate safely, it is not a valid assumption to consider a 3-hour evacuation for another community as unsafe. The 3-hour evacuation can be very safe while the 20-minute evacuation may be unsafe due to the conditions and exposures along the evacuation routes.

Notwithstanding evacuation challenges and variables, the City/County in safely managing both mass and targeted evacuations to great success, for example the 2017 Palmer Fire resulted in evacuation of several neighborhood resulted in zero fatality . It should be noted that other variables can impact the number of fatalities during an evacuation. For instance, some individuals may choose to stay behind to defend their property or adopt a wait-and-see approach . Such decisions could delay their evacuation to a point where it becomes too late to leave safely .

Technological advancements and improved evacuation strategies learned from prior wildfire evacuation events have resulted in a system that is many times more capable of managing evacuations. With the technology in use today, evacuations are more strategic and surgical than in the past, evacuating smaller areas at highest risk and phasing evacuation traffic so that it flows more evenly and minimizes the surges that may slow an evacuation. Mass evacuation scenarios where large populations are all directed to leave simultaneously, resulting in traffic delays, are thereby avoided, and those populations most at risk are able to safely evacuate. While mass evacuation scenarios are avoided with the technology in use today, the evacuation simulations conducted in this report are based on mass evacuation scenarios to provide a worst-case scenario, as described previously.

As indicated previously, the evacuation simulations conducted herein represent mass evacuations in the Project vicinity to provide extremely worst-case scenarios. The Incident Commander would direct a focused evacuation of zones situated near the wild urban interface, which are at higher risk. Areas that are not in immediate danger would likely not be provided with an evacuation notice initially and may be instructed to remain in place to prioritize the evacuation of vehicles from areas under direct threat. This would result in phasing evacuation traffic so that it flows more evenly and minimizes the surges that may slow an evacuation. Therefore, evacuation flow would be able to be effectively managed and would not likely lead to mass evacuations, as simulated in this report.

Consideration of the adequacy of emergency access, including the Project's proximity to existing fire services and the capacity of existing services is provided in the Project's Fire Fuel Load Modeling Report (Dudek 2023).

4.2 Evacuation Route Determination

Typically, fire and law enforcement officials will identify evacuation points before evacuation routes are announced to the public. Evacuation routes are determined based on the location and extent of the incident and its spread rate and direction and include as many pre-designated transportation routes as possible. However, field conditions and shifting fire behavior may result in real-time changes to predetermined routes. Having additional evacuation route options is considered critical in these conditions. Under extreme fire weather events, it is unlikely that evacuation would occur to the east and this analysis assumes all traffic, existing and proposed project related would be sent west to I-15.

5 Resident Wildfire/Evacuation Awareness

The Renzulli Estates HOA should be active in its outreach to its residents regarding fire safety and general evacuation procedures. There are aspects of fire safety and evacuation that require a significant level of awareness by the residents and emergency services in order to reduce and/or avoid problems with an effective evacuation. Mitigating potential impediments to successful evacuations requires focused and repeated information through a strong educational outreach program. The Renzulli Estates HOA should engage residents and coordinate with local fire agencies for fire safety awareness through a variety of methods (i.e., mailers, virtual and/or in-person meetings, website, emails, etc.).

This evacuation plan will be accessible on the HOA's website. Annual reminder notices will be provided to each homeowner encouraging them to review the plan and be familiar with community evacuation protocols. The HOA will coordinate with local fire agencies to hold an annual fire safety and evacuation preparedness informational meeting. The meeting will be attended by representatives of appropriate fire agencies and important fire and evacuation information will be reviewed. One focus of these meetings and of the HOA's annual message will be on the importance of each resident to prepare and be familiar with their own "Ready, Set, Go!" evacuation plan. The "Ready, Set, Go!" program is defined at http://www.readysandiego.org/Resources/wildfire_preparedness_guide .pdf, and information about preparing an individual Action Plan is provided in Appendix A of this document.

The focus of the "Ready, Set, Go!" program is on public awareness and preparedness, especially for those living in the wildland-urban interface (WUI) areas. The program is designed to incorporate the local fire protection agency as part of the training and education process in order to ensure that evacuation preparedness information is disseminated to those subject to the potential impact from a wildfire. There are three components to the program:

"READY" – Preparing for the Fire Threat: Take personal responsibility and prepare long before the threat of a wildfire so you and your home are ready when a wildfire occurs. Create defensible space by planting and maintaining ignition-resistant vegetation near your home. Use only fire-resistant landscaping and maintain the ignition resistance of your home. Assemble emergency supplies and belongings in a safe spot. Confirm you are registered for Reverse 911, AlertSanDiego, and Community alert system. Make sure all residents residing within the home understand the plan, procedures and escape routes.

"SET" – Situational Awareness When a Fire Starts: If a wildfire occurs and there is potential for it to threaten the Renzulli Estates neighborhood, pack your vehicle with your emergency items. Stay aware of the latest news from local media and your local fire department for updated information on the fire. If you are uncomfortable, leave the area.

"GO!" – Leave Early! Following your Action Plan provides you with knowledge of the situation and how you will approach evacuation. Leaving early, well before a wildfire is threatening your community, provides you with the least delay and results in a situation where, if a majority of neighbors also leave early, firefighters are now able to better maneuver, protect and defend structures, evacuate other residents who couldn't leave early, and focus on citizen safety.

"READY SET GO!" is predicated on the fact that being unprepared and attempting to flee an impending fire late (such as when the fire is physically close to your community) is dangerous and exacerbates an already confusing situation. This Renzulli Estates Wildfire Evacuation Plan provides key information that can be integrated into the individual Action Plans, including the best available routes to use in the event of an emergency evacuation.

Situation awareness requires a reliable information source. One of the most effective public notification methods is Reverse 911. The San Diego OES operates the Reverse 911 notification system that provides a recorded message over land line telephone systems relating to evacuation notices. In addition, OES operates a program known as "Alert San Diego" that has the capability to send emergency notifications over both land lines as well as to cell phones and via text messages. It is up to individual residents to register their cell phones for "Alert San Diego." The registration of cell phones can be done on line at www.ReadySanDiego.com. In addition, the San Diego Emergency Alert System (EAS) is county-wide and broadcasts emergency information via two radio stations: KOGO AM 600 and KLSD AM 1360.

As part of the project resident fire awareness and evacuation readiness program information will be delivered in a variety of methods. The HOA will be responsible for providing access to this Wildfire Evacuation Plan, including materials from the "Ready, Set, Go!" Program via the HOA's website.

As part of the approval of project, it shall be binding on the HOA to actively participate as a partner with the SDFRD to assist with the coordination and distribution of fire safety information they develop to the residents of the project.

6 Renzulli Estates Project Evacuation Procedures

6.1 Relocation/Evacuation

It is estimated that the minimum amount of time needed to move the project and the Miramar Ranch North Community population to urbanized and/or designated evacuation areas may require up to 3.58 hours or more under varying constraints that may occur during an evacuation. This does not include additional allowances for the time needed to detect and report a fire, for fire response and on-site intelligence, for phone, patrols, and aerial based notifications, and for notifying special needs citizens.

Wolshon and Marchive (2007) simulated traffic flow conditions in a computer derived WUI under a range of evacuation notice lead times and housing densities. To safely evacuate more people, they recommended that emergency managers 1) provide more lead time to evacuees and 2) control traffic levels during evacuations so that fewer vehicles are trying to exit at the same time.

Wildfire emergency response procedures will vary depending on the type of wildfire and the available time in which decision makers (IC, SDFRD, CAL FIRE, SDSD, and/or County Office of Emergency Management) can assess the situation and determine the best course of action. Based on the project and surrounding neighborhoods, its road network, and the related fire environment, the first and primary type of evacuation envisioned is an orderly, pre-planned evacuation process where people are evacuated from the project and surrounding neighborhoods to more urban areas further from an encroaching wildfire (likely to urban areas south [and west] or north) well before fire threatens. This type of evacuation must include a conservative approach to evacuating; i.e., when ignitions occur and weather is such that fires may spread rapidly, evacuations should be triggered on a conservative threshold that includes time allowances for unforeseen, but possible, events that would slow the evacuation process.

The second type of evacuation is considered by many to offer the highest level of life protection to the public, but it can result in evacuees being placed in harm's way if the time available for evacuation is insufficient (Cova et al. 2011). An example of this type of evacuation, which is highly undesirable from a public safety perspective, is an evacuation that occurs when fire ignites close to vulnerable communities. This type of situation is inherently dangerous because there is generally a higher threat to persons who are in a vehicle on a road when fire is burning in the immediate area than in a well-defended, ignition-resistant home. Conditions may become so poor that the vehicle drives off the road or crashes into another vehicle, and flames and heat overcome the occupants. A vehicle offers little shelter from a wildfire if the vehicle is situated near burning vegetation or catches fire itself. This type of evacuation must be considered a very undesirable situation by law and fire officials in all but the rarest situations where late evacuation may be safer than seeking temporary refuge in a structure (such as when there are no nearby structures, the structure[s] is/are already on fire, or when there is no other form of refuge). Temporary refuge would be possible within the project's structures, but structures in surrounding neighborhoods, as previously discussed, are less desirable due to their higher vulnerability to ignition.

The third potential type of evacuation is a hybrid of the first two. In cases where evacuation is in process and changing conditions result in a situation that is considered unsafe to continue evacuation, it may be advisable to direct evacuees to pre-planned temporary refuge locations, including their own home if it is ignition-resistant and

defensible, such as those at the project. As with the second type of evacuation discussed above, this situation is considered highly undesirable, but the evacuation pre-planning must consider these potential scenarios and prepare decision makers at the IC level and at the field level for enacting a contingency to evacuation when conditions dictate.

Indications from past fires and related evacuations, in San Diego County and throughout Southern California, which have experienced increasingly more frequent and larger fires, are that evacuations are largely successful, even with a generally unprepared populace. It then stands to reason that an informed and prepared populace would minimize the potential evacuation issues and related risk to levels considered acceptable from a community perspective.

Evacuation orders or notifications are often triggered based on established and pre-determined model buffers, which are based on topography, fuel, moisture content of the fuels and wind direction. Evacuations are initiated when a wildfire reaches or crosses one of these pre-determined buffers. Evacuations can also be very fluid. The IC, law enforcement and OES would jointly enact evacuations based on fire behavior.

6.2 Renzulli Estates Project Evacuation Baseline

For purposes of this Wildfire Evacuation Plan, the first and most logical choice for all of the residents and guests within the boundaries of project is to adhere to the principles and practices of the "Ready, Set, Go!" Program previously mentioned in this document. As part of this program, it is important that each household develop a plan that is clearly understood by all family members and participates in the educational and training programs sponsored by the Renzulli Estates HOA and the SDFRD. In addition, it is imperative that the "Ready, Set, Go!" program information be reviewed on a routine basis along with the accompanying maps illustrating evacuation routes, temporary evacuation points and pre-identified evacuation points. It must be kept in mind that conditions may arise that will dictate a different evacuation route than the normal roads used on a daily basis.

Residents are urged to evacuate as soon as they are notified to do so or earlier if they feel uncomfortable. Directions on evacuation routes will be provided in most cases, but when not provided, the project residents will proceed according to known available routes away from the encroaching fire as detailed in Section 1 of this report. Residents are cautioned not to rely on navigation aid apps which may inadvertently lead them toward an oncoming fire. Depending on the type of emergency and the resulting evacuation, it could take as long as approximately three and a half hours or more to complete a community-wide evacuation (project and surrounding neighborhoods), based on road capacities and competing use of the roads by residents from other areas.

Note: This Wildfire Evacuation Plan will require adjustment and continued coordination by the Renzulli Estates HOA and/or developer and fire/law enforcement agencies during each of the construction phases. With each phase, the evacuation routes may be subject to changes with the addition of both primary and secondary evacuation routes.

6.3 Civilian and Firefighter Evacuation Contingency

As of this document's preparation, no community in California has been directed to shelter-in- place during a wildland fire. Even the communities in Rancho Santa Fe, California, which are designed and touted as shelter-in-place communities, were evacuated during the 2007 Witch Creek Fire. This is not to say that people have not successfully sheltered-in-place during wildfire, where there are numerous examples of people sheltering in their homes, in hardened structures, in community buildings, in swimming pools, and in cleared or ignition-resistant

landscape open air areas. The preference will always be early evacuation following the "Ready, Set, Go!" model, but there exists the potential for unforeseen civilian evacuation issues, and having a contingency plan will provide direction in these situations that may result in saved lives.

Potential problems during wildfire evacuation from the project include:

- Inadequate time to safely evacuate
- Fire evacuations during rush hour traffic or when large events are occurring
- Blocked traffic due to accidents or fallen tree(s) or power pole(s)
- The need to move individuals who are unable to evacuate

It is recommended that local law enforcement and fire agencies conduct concerted pre-planning efforts focusing on evacuation contingency planning for civilian populations when it is considered safer to temporary seek a safer refuge than evacuation. The project's structures would allow for the possibility of temporary sheltering while the surrounding neighborhood's structures would not typically be considered ignition-resistant and therefore, not appropriate for temporary refuge.

6.3.1 Safety Zones

The International Fire Service Training Association (IFTSA; Fundamentals of Wildland Fire Fighting, 3rd Edition) defines "safety zones" as areas mostly devoid of fuel, which are large enough to assure that flames and/or dangerous levels of radiant heat will not reach the personnel occupying them. Areas of bare ground, burned over areas, paved areas, and bodies of water can all be used as safety zones. The size of the area needed for a safety zone is determined by fuel types, its location on slopes and its relation to topographic features (chutes and saddles) as well as observed fire behavior. Safety zones should never be located in topographic saddles, chutes or gullies. High winds, steep slopes or heavy fuel loads may increase the area needed for a safety zone.

The National Wildland Fire Coordinating Groups (NWFCG), Glossary of Wildland Fire Terminology provides the following definitions for safety zones:

Safety Zone. An area cleared of flammable materials used for escape in the event the line is outflanked or in case a spot fire causes fuels outside the control line to render the line unsafe. In firing operations, crews progress so as to maintain a safety zone close at hand allowing the fuels inside the control line to be consumed before going ahead. Safety zones may also be constructed as integral parts of fuelbreaks; they are greatly enlarged areas, which can be used with relative safety by firefighters and their equipment in the event of blowup in the vicinity.

According to NWFCG, safety zone(s):

- Must be survivable without a fire shelter
- Can include moving back into a clean burn
- May take advantage of natural features (rock areas, water, meadows)
- Can include constructed sites (clear-cuts, roads, helispots)
- Are scouted for size and hazards
- Consider the topographic location (larger if upslope)
- Should be larger if downwind
- Should not include heavy fuels

- May need to be adjusted based on site-specific fire behavior

The definition for a safety zone includes provisions for separation distance between the firefighter and the flames of at least four times the maximum continuous flame height. Distance separation is the radius from the center of the safety zone to the nearest fuels. For example, considering worst-case 69.6-foot tall flame lengths that could occur during peak gusts in open space northeast of the Project site (Dudek 2023), then a 280-foot separation would be required, and potentially more could be needed if there were site-specific features that would result in more aggressive fire behavior. The calculated 69.6-foot-tall flame lengths are not directly adjacent to the Project site and are longer than the fire behavior modeling results for fuels on and directly adjacent to the Project's developed area.

Safety zones are not readily available within the project's surrounding communities, Scripps Ranch Marketplace and Scripps Trident Plaza, shopping centers located along Scripps Poway Parkway between Pomerado Road and I-15 or EB Scripps Elementary or Dingeman Elementary are the best possibilities for a safety zone for firefighter use. The project will include the ability for firefighters to seek safety zones within the ignition-resistant landscapes, but identification of other potential safety zones will require additional focused study by SDFRD and other fire and law enforcement agencies.

6.3.2 Temporary Firefighter Refuge Areas

Firescope California (Firefighting Resources of Southern California Organized for Potential Emergencies) was formed by legislative action to form a partnership between all facets of local, rural, and metropolitan fire departments, CAL FIRE and federal fire agencies. Firescope defines a contingency plan when it is not possible to retreat to a safety zone. This contingency includes establishment of firefighter temporary refuge areas (TRAs), which are defined as:

A preplanned area where firefighters can immediately take refuge for temporary shelter and short-term relief without using a fire shelter in the event that emergency egress to an established safety zone is compromised.

Examples of a TRA may include the lee side of a structure, inside of a structure, large lawn or parking areas, or cab of a fire engine, amongst others. Differences between a TRA and a Safety Zone is that TRAs are closer to the immediate firefighting area, are considered a contingency to being able to get to a safety zone, do not include a requirement for a large area set back four times the flame lengths of adjacent fuels, and cannot be feasibly pre-planned until firefighters arrive on-scene and size up the situation.

Firescope appropriately notes that although safety zones and viable escape routes shall always be identified in the WUI environment, they may not be immediately available should the fire behavior increase unexpectedly. Often a TRA is more accessible in the WUI environment. A TRA will provide temporary shelter and short-term relief from an approaching fire without the use of a fire shelter and allow the responders to develop an alternate plan to safely survive the increase in fire behavior.

The major difference between a TRA and a safety zone is that a TRA requires another planned tactical action; i.e., TRAs cannot be considered the final action, but must include self-defense and a move out of the area when the fire threat subsides. A TRA should be available and identified on-site at a defended structure. TRAs are NOT a substitute for a safety zone. TRA pre-planning is difficult, at best because they are very site- and fire behavior-specific. For the Miramar Ranch North community, TRAs would likely include navigating into the project within the more densely

developed areas where firefighters would be separated from the unmaintained wildland fuels by wide areas including site-wide maintained landscapes, ignition-resistant residences, and wide roads that offer numerous opportunities for TRA.

The entire developed portions of the project, but especially the interior areas of neighborhoods, are considered TRAs. This is an important concept because it offers last-resort, temporary refuge of firefighters, and in a worst-case condition, residents. This approach would be consistent with Firescope California (2013), which indicates that firefighters must determine if a safe evacuation is appropriate and if not, to identify safe refuge for those who cannot be evacuated, including civilians.

Each of the site's residences that can be considered for TRA include the following features:

- Ignition-resistant construction
- Annual landscape inspections by 3rd party inspectors
- Wide roadways with fire hydrants
- Maintained landscapes and roadside fuel modification
- Ember-resistant vents
- Interior fire sprinklers

Because there is the possibility that evacuation of the project may be less safe than temporarily refuging on-site, such as during a fast-moving, wind-driven fire that ignites nearby, temporary refuge within some properly designed, constructed and maintained residences on-site is considered a contingency plan for the project. This concept is considered a component of the "Ready, Set, Go!" model as it provides a broader level of "readiness" should the ability to execute an early evacuation be negated by fire, road congestion, or other unforeseen issues.

Note: this approach would be considered a last-resort contingency during wildfire with the primary focus being on early evacuation. The decision for evacuation or temporarily refuging on site will be made by responding law enforcement and/or fire personnel.

6.4 Social Aspects of Wildfire Evacuation

Orderly movement of people is the result of planning, training, education, and awareness, all of which are promoted in San Diego. Evacuation has been the standard term used for emergency movement of people and implies imminent or threatening danger. The term in this Wildfire Evacuation Plan, and under the "Ready, Set, Go!" concept, indicates that there is a perceived threat to persons and movement out of the area is necessary, but will occur according to a pre-planned and practiced protocol, reducing the potential for panic.

Citizen reactions may vary during an evacuation event, although several studies indicate that orderly movement during wildfire and other emergencies is not typically unmanageable. Evacuation can be made even less problematic through diligent public education and emergency personnel training and familiarity. Social science research literature indicates that reactions to warnings follow certain behavior patterns that are defined by people's perceptions (Aguirre 1994; Drabek 1991; Fitzpatrick and Mileti 1994; Gordon 2006; Collins 2004) and are not unpredictable. In summary, warnings received from credible sources by people who are aware (or have been made aware) of the potential risk, have the effect of an orderly decision process that typically results in successful evacuation. This success is heightened when evacuations are not foreign to residents (Quarantelli and Dynes 1977; Lindell and Perry 2004) as will occur within the project. Further, in all but the rarest circumstances, evacuees will

be receiving information from credible sources during an evacuation. It would be anticipated that law enforcement and/or fire personnel would be on site to help direct traffic and would be viewed by evacuees as knowledgeable and credible. The importance of training these personnel cannot be overstated and annual education and training regarding fire safety and evacuation events will be essential for successful future evacuations.

6.4.1 Evacuation of Special Populations

Vogt (1990 and 1991) defines special populations as those groups of people who, because of their special situations or needs, require different planning strategies from those of the general population. Special needs populations include those in institutions or special facilities, those with disabilities in homes, those who need care, children, and others who cannot provide for their own evacuation if necessitated. The special needs population is concentrated in facilities but is also widespread in terms of facility locations and those who live in residences. Special needs populations in at the project site may include the hearing or visually impaired, foreign speaking, visitors passing through the area, temporary visitors such as day workers, and the non-ambulatory confined to residences either temporarily or permanently.

Tourists and temporary visitors may not have knowledge of the area's fire hazard, they may not know how to react in a fire emergency, and they may not understand what they are being told to do. Conversely, this segment of the population would typically be easier to evacuate quickly as they have no possessions or pets they would need to prepare. They can get in their cars and be directed out of the area.

6.4.2 Animal Evacuations

Animal evacuations present a host of challenges that may affect the overall successful movement of people and their possessions out of harm's way. For example, livestock owners do not always have the means to load and trailer their livestock out of the area. Further, most wildfire evacuation relief shelters or commercial lodging facilities do not allow people to bring in pets or other animals. Sorensen and Vogt (2006) indicate that an issue receiving increasing attention is what evacuees do with pets or other animals such as livestock when they leave their homes and whether having pets or animals impacts their decision to evacuate.

The project will not accommodate livestock on-site. However, household pets are a common occurrence.

6.4.3 Re-entry Procedures

An important component of evacuations is the citizen re-entry process. Guidance and procedures to ensure a coordinated, safe, and orderly re-entry into impacted communities following an incident is provided in the County of San Diego Re-Entry Protocol.

Re-entry will be initiated by the IC/Unified Command of the Incident Management Team, with the support of the Director of Emergency Services, the OA EOC Director, and the Operations Section Chief at the OA EOC. In most cases, the OA EOC will remain activated until full re-entry is complete. In the event that the OA EOC has been deactivated, the IC or the Liaison Officer of the Incident Management Team will initiate re-entry procedures.

The IC will designate a Re-Entry Coordinator and the Operations Section Chief of the OA EOC will coordinate with and support the Re-Entry Coordinator. The Re-Entry Coordinator is responsible for coordinating the re-entry procedures with all involved agencies and ensuring effective communication.

The impacted areas must be thoroughly investigated to ensure it is safe for residents to return and normal operations have been restored.

The public will be notified of the re-entry status through the notification measures previously mentioned in this annex, including SDCountyEmergency.com, SDEmergency App for smart phones, emergency broadcast radio, television, press releases, informational phone lines such as 2-1-1, community briefings, and informational updates at shelters.

Once evacuees are permitted to return, it is important that procedures are established to properly identify residents and critical support personnel, as well as ensure the legitimacy of contractors, insurance adjustors, and other personnel. Re-entry points should be staffed by law enforcement personnel.

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7 Limitations

This Wildfire Evacuation Plan has been developed based on City of San Diego wildfire and evacuation standards and the San Diego City and County Evacuation Annexes and is specifically intended as a guide for evacuations for the project. This plan provides basic evacuation information that will familiarize the project's residents with the evacuation route options that may be available to them during an emergency. However, because emergencies requiring evacuation have many variables and must be evaluated on a case-by-case basis, real-time law enforcement and fire personnel/agencies' decision-making and direction during an emergency requiring evacuation would supersede this plan.

This plan analyzes the Miramar Ranch North Community's evacuation times currently and with the project. The estimated evacuation times are based on several assumptions as detailed in this plan. However, actual evacuation times may be faster or slower than the estimates, depending on the type of emergency, the extent of the evacuation, the time of day, and other factors. A project and surrounding neighborhoods collective, community–wide evacuation would include congested roads in its existing condition. Congested roads are normal in any urban setting when a mass evacuation is declared unless it is managed, and evacuation areas are staggered to reduce the potential traffic surges that can significantly impact evacuations.

This Wildfire Evacuation Plan promotes the "Ready, Set, Go!" model, adopted by County OES, CAL FIRE, and many fire agencies statewide, including SDCFA. The goal is to raise agency and citizen awareness of potential evacuation issues and get a majority of the public "Ready" by taking a proactive stance on preparedness, training drills, visitor education, and evacuation planning efforts. The project population will be "Set" by closely monitoring the situation whenever fire weather occurs and/or when wildland fire occurs, and elevating pre-planned protocol activities and situation awareness. Lastly, officials will implement the plan and mandate that populations "Go" by executing pre-planned evacuation procedures in a conservative manner, i.e., evacuation will occur based on conservative decision points, as proposed in this evacuation plan or when directed by fire and law enforcement personnel, whichever is more conservative. The preferred alternative will always be early evacuation. However, there may be instances when evacuation is not possible, is not considered safe, or is not an option based on changing conditions. For example, should a fire occur and make evacuation from the project area ill advised, a contingency plan for residents should be available. This contingency would include moving people to pre-designated TRAs until it is safe to evacuate or the threat has been mitigated.

Ultimately, it is the intent of this Wildfire Evacuation Plan to guide the implementation of evacuation procedures such that the process of evacuating people from the project is facilitated in an efficient manner and according to a pre-defined evacuation protocol as well as providing a contingency option of temporarily refuging, if evacuation is considered less safe. The project's residents will be aware of this evacuation plan as the Renzulli Estates HOA will post it on its website and provide reminders to residents on at least an annual basis. This educational outreach will result in a populace that understands the potential for evacuations and the routes and options that may be presented to them.

During extreme fire weather conditions, there are no guarantees that a given structure will not burn or that evacuations will be successful all of the time. Wildfires may occur in the area that could damage property or harm persons. However, successful implementation of the procedures outlined in this Wildfire Evacuation Plan will provide for an informed populace regarding evacuations.

This Wildfire Evacuation Plan does not provide a guarantee that all persons will be safe at all times because of the procedures discussed. There are many variables that may influence overall safety. This Plan provides a summary for implementation of standard evacuation protocols, suggested roadway enhancements, and public outreach, which should result in reduced wildfire related risk and hazard. Even then, fire can compromise the procedures through various, unpredictable ways. The goal is to reduce the likelihood that the system is compromised through implementation of the elements of this Plan and regular occurring program maintenance and updates.

It is recommended that the evacuation process is carried out with a conservative approach to fire safety. This approach must include establishing and maintaining the project's fuel modification landscape on a property by property basis, infrastructural, and ignition-resistant construction components (retrofitting as possible) according to the appropriate standards and embracing a "Ready, Set, Go!" stance on evacuation. Accordingly, evacuation of the wildfire areas should occur according to pre-established evacuation decision points, or as soon as they receive notice to evacuate, which may vary depending on many environmental and other factors. Fire is a dynamic and somewhat unpredictable occurrence and it is important for anyone living at the wildland-urban interface to educate themselves on practices that will improve safety.

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Appendix A

"Ready, Set, Go!" Resident Wildland Fire Action Guide

WILDFIRE IS COMING. ARE YOU READY TO...

GO!



WILDFIRE EVACUATION GUIDE.

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION
CAL FIRE
SINCE 1885

GIVE YOUR FAMILY THE BEST CHANCE OF SURVIVING A WILDFIRE BY EVACUATING EARLY.

ReadyForWildfire.org

TAKE ACTION IMMEDIATELY WHEN WILDFIRE STRIKES

Follow these steps as soon as possible to get ready to Go!

1. Review your Evacuation Checklist.
2. Ensure your Emergency Supply Kit is in your vehicle.
3. Cover up to protect against heat and flying embers. Wear long pants, long sleeve shirt, heavy shoes/boots, cap, dry bandanna for face cover, goggles or glasses. 100% cotton is preferable.
4. Locate your pets and take them with you.

WHEN TO EVACUATE

Leave as soon as evacuation is recommended by fire officials to avoid being caught in fire, smoke or road congestion. Don't wait to be ordered by authorities to leave. Evacuating early also helps firefighters keep roads clear of congestion, and lets them move more freely to do their job. In an intense wildfire, they may not have time to knock on every door. If you are advised to leave, don't hesitate!

- Officials will determine the areas to be evacuated and escape routes to use depending upon the fire's location, behavior, winds, terrain, etc.
- Law enforcement agencies are typically responsible for enforcing an evacuation order. Follow their directions promptly.
- You will be advised of potential evacuations as early as possible. You must take the initiative to stay informed and aware. Listen to your radio/TV for announcements from law enforcement and emergency personnel.
- You may be directed to temporary assembly areas to await transfer to a safe location.

The terms "Voluntary" and "Mandatory" are used to describe evacuation orders. However, local jurisdictions may use other terminology such as "Precautionary" and "Immediate Threat." These terms are used to alert you to the significance of the danger. All evacuation instructions provided by officials should be followed immediately for your safety.

WHAT TO DO IF YOU BECOME TRAPPED

WHILE IN YOUR VEHICLE:



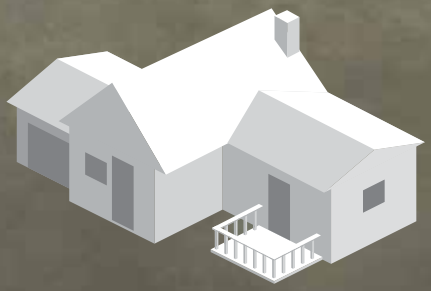
- Stay calm.
- Park your vehicle in an area clear of vegetation.
- Close all vehicle windows and vents.
- Cover yourself with a wool or cotton blanket or jacket.
- Lie on vehicle floor.
- Use your cell phone to advise officials—**Call 911.**

WHILE ON FOOT:



- Stay calm.
- Go to an area clear of vegetation, a ditch or depression on level ground if possible.
- Lie face down and cover up your body.
- Use your cell phone to advise officials—**Call 911.**

WHILE IN YOUR HOME:



- Stay calm and keep your family together.
- **Call 911** and inform authorities of your location.
- Fill sinks and tubs with cold water.
- Keep doors and windows closed, but unlocked.
- Stay inside your house.
- Stay away from outside walls and windows.



PRE-EVACUATION PREPARATION STEPS

When an evacuation is anticipated, follow these checklists (*if time allows*) to give your home the best chance of surviving a wildfire:

OUTSIDE

- ☐ 1 Gather up flammable items from the exterior of the house and bring them inside (patio furniture, children's toys, door mats, trash cans, etc.) or place them in your pool.
- ☐ 2 Turn off propane tanks.
- ☐ 3 Move propane BBQ appliances away from structures.
- ☐ 4 Connect garden hoses to outside water valves or spigots for use by firefighters. Fill water buckets and place them around the house.
- ☐ 5 Don't leave sprinklers on or water running; they can affect critical water pressure.
- ☐ 6 Leave exterior lights on so your home is visible to firefighters in the smoke or darkness of night.
- ☐ 7 Put your Emergency Supply Kit in your vehicle.
- ☐ 8 Back your car into the driveway with vehicle loaded and all doors and windows closed. Carry your car keys with you.
- ☐ 9 Have a ladder available and place it at the corner of the house for firefighters to quickly access your roof.
- ☐ 10 Seal attic and ground vents with pre-cut plywood or commercial seals.
- ☐ 11 Monitor your property and the fire situation. Don't wait for an evacuation order if you feel threatened and need to leave.
- ☐ 12 Check on neighbors and make sure they are preparing to leave.

INSIDE THE HOUSE

- ☐ 13 Shut all windows and doors, leaving them unlocked.
- ☐ 14 Remove flammable window shades and curtains. Close metal shutters.
- ☐ 15 Move flammable furniture to the center of the room, away from windows and doors.
- ☐ 16 Shut off gas at the meter. Turn off pilot lights.
- ☐ 17 Leave your lights on so firefighters can see your house under smoky conditions.
- ☐ 18 Shut off the air conditioning.

ANIMALS

- ☐ 19 Locate your pets and keep them nearby.
- ☐ 20 Prepare farm animals for transport and think about moving them to a safe location early.


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NEIGHBORING
PROPERTY

KNOW THE LAW
BE READY TO EVACUATE

CALIFORNIA LAW AUTHORIZES OFFICERS TO RESTRICT ACCESS TO ANY AREA WHERE A MENACE TO PUBLIC HEALTH OR SAFETY EXISTS DUE TO A CALAMITY SUCH AS FLOOD, STORM, FIRE, EARTHQUAKE, EXPLOSION, ACCIDENT OR OTHER DISASTER. REFUSAL TO COMPLY IS A MISDEMEANOR. (PENAL CODE 409.5)

HOW TO BE PREPARED
BEFORE WILDFIRE STRIKES

DEVELOP AN ACTION PLAN THAT INCLUDES:

Where to Go

Have a safe destination planned. It should be a low-risk area, such as a well-prepared friend's or relative's house, an evacuation center, motel, etc.

How To Get There

Plan several travel route options in case one route is blocked by the fire or by emergency vehicles and equipment.

What To Take

Assemble your emergency supply kit long before a wildfire or other disaster occurs. Plan to be away from your home for at least three days. Don't forget to plan for your pets or livestock as well.

For more information on preparing your family, pets and property for wildfire see the Ready for Wildfire "Are You Set?" brochure or visit ReadyforWildfire.org/set.

RETURNING HOME
AFTER A WILDFIRE

Do not return to your home until fire officials determine it is safe. Notification that it is safe to return home will be given as soon as possible considering safety and accessibility.

When you return home:

- Be alert for downed power lines and other hazards.
- Check propane tanks, regulators, and lines before turning gas on.
- Check your residence carefully for hidden embers or smoldering fires.

READY, SET, GO! PREPARATION GUIDES

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WILDFIRE IS COMING PREPARATION GUIDES:



Step 1:
Is Your Home Ready?

Creating defensible space and hardening your home against wildfire.



Step 2:
Are You Set?

Developing a Wildfire Action Plan.



Step 3:
Are You Ready to Go?

A quick-reference evacuation guide.

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION
CAL FIRE
SINCE 1885

Go to ReadyForWildfire.org for more detailed information on all three guides to prepare for and survive a wildfire.

WILDFIRE IS COMING. ARE YOU...

READY?



DEFENSIBLE SPACE AND HARDENING YOUR HOME.

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION
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THOUSANDS OF WILDFIRES STRIKE CALIFORNIA EVERY YEAR. IT'S NOT A MATTER OF IF YOUR HOME IS AT RISK, BUT WHEN.

ReadyForWildfire.org

PLANT AND TREE SPACING

The spacing between grass, shrubs, and trees is crucial to reduce the spread of wildfire. The spacing needed is determined by the type and size of the shrubs and trees, as well as the slope of the land. For example, a property on a steep slope with larger plant life will require greater spacing between trees and shrubs than a level property that has small, sparse vegetation.

VERTICAL SPACING

Remove all tree branches at least 6 feet from the ground.

If shrubs are under trees, additional vertical space is needed. Lack of vertical space can allow a fire to move from the ground to the shrubs to the treetops like a ladder.



FIRE-SAFE LANDSCAPING

Fire-safe landscaping isn't necessarily the same thing as a well-maintained yard. Fire-safe landscaping uses fire-resistant plants that are strategically planted to resist the spread of fire to your home.

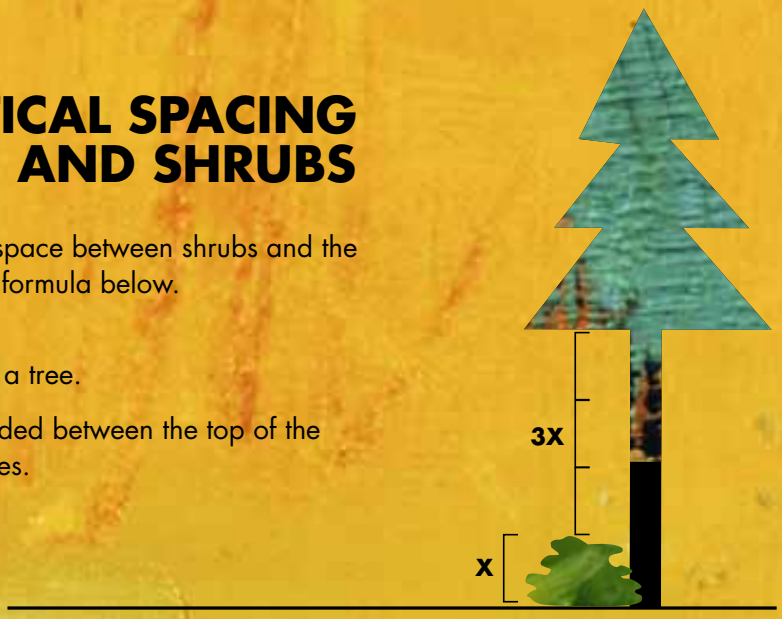
The good news is that you don't need to spend a lot of money to make your landscape fire-safe. And fire-safe landscaping can increase your property value and conserve water while beautifying your home. For more information on fire-safe landscaping, visit: **ReadyForWildfire.org/landscaping**.

MINIMUM VERTICAL SPACING BETWEEN TREES AND SHRUBS

To determine the proper vertical space between shrubs and the lowest branches of trees, use the formula below.

Example:
A five-foot shrub is growing near a tree.

3 x 5 = 15 feet of clearance needed between the top of the shrub and the lowest tree branches.

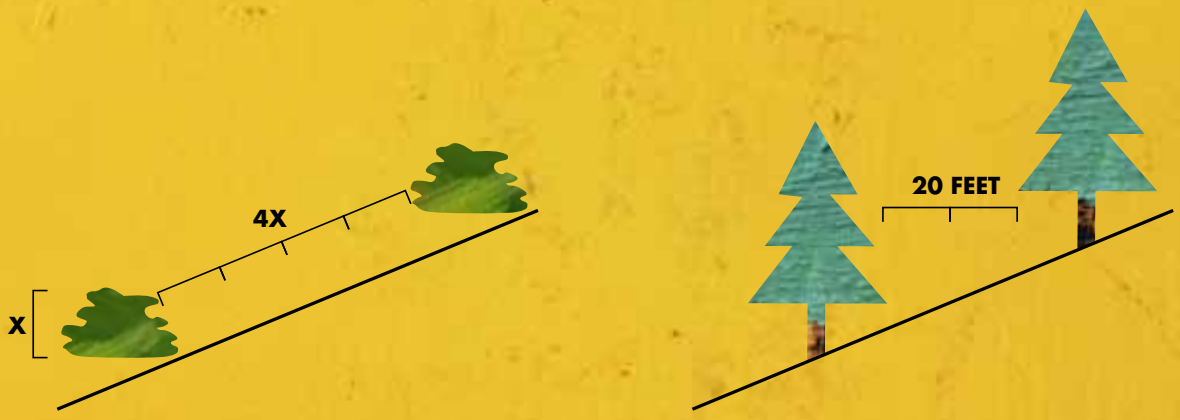


MINIMUM HORIZONTAL SPACING FOR TREES AND SHRUBS

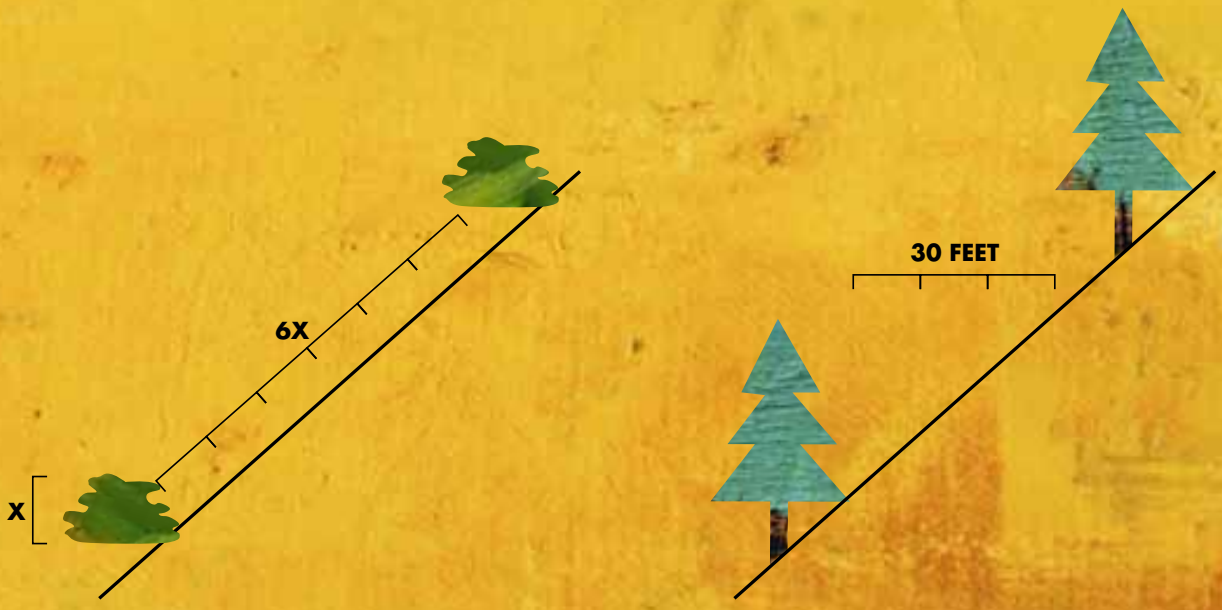
Horizontal spacing depends on the slope of the land and the height of the shrubs or trees. Check the diagrams below to determine spacing distance.



FLAT TO MILD SLOPE (LESS THAN 20%)



MILD TO MODERATE SLOPE (20%–40%)



MODERATE TO STEEP SLOPE (GREATER THAN 40%)

DEFENSIBLE SPACE

Creating and maintaining defensible space is essential for increasing your home's chance of surviving a wildfire. It's the buffer that homeowners are required to create on their property between a structure and the plants, brush and trees or other items surrounding the structure that could catch fire. This space is needed to slow the spread of wildfire and improves the safety of firefighters defending your home.

Two zones make up the required 100 feet of defensible space:

ZONE 1—Extends 30 feet out from buildings, decks, and other structures

1. Remove all dead plants, grass and weeds.
2. Remove dead or dry leaves and pine needles from your yard, roof and rain gutters.
3. Trim trees regularly to keep branches a minimum of 10 feet from other trees.
4. Remove dead branches that hang over your roof. And keep branches 10 feet away from your chimney.
5. Relocate exposed woodpiles outside of Zone 1 unless they are completely covered in a fire resistant material.
6. Remove or prune flammable plants and shrubs near windows.
7. Remove vegetation and items that could catch fire from around and under decks.
8. Create a separation between trees, shrubs and items that could catch fire, such as patio furniture, swing sets, etc.

ZONE 2—Extends 30 to 100 feet from buildings and other structures

9. Cut or mow annual grass down to a maximum height of 4 inches.
10. Create horizontal spacing between shrubs and trees. (See diagram)
11. Create vertical spacing between grass, shrubs and trees. (See diagram)
12. Remove fallen leaves, needles, twigs, bark, cones, and small branches. However, they may be permitted to a depth of 4 inches if erosion control is an issue.

BOTH ZONES—0 to 100 feet from buildings and other structures

13. Mow before 10 a.m., but never when it's windy or excessively dry.
14. Protect water quality. Do not clear vegetation near waterways to bare soil. Vegetation removal can cause soil erosion—especially on steep slopes.

ARE YOU DOING THE RIGHT THING—THE WRONG WAY?

Each year, CAL FIRE responds to hundreds of fires started by Californians using equipment the wrong way. If you live in a wildland area, all equipment must be used with extreme caution.

Lawn mowers, metal-bladed trimmers, chain saws, grinders, welders, and tractors can all start a wildland fire if not used properly. Do your part to keep your community fire-safe.

HERE'S HOW TO DO IT THE RIGHT WAY:

Mowing

Metal blades striking rocks can create sparks and start fires in dry grass. Use caution.

Spark Arresters

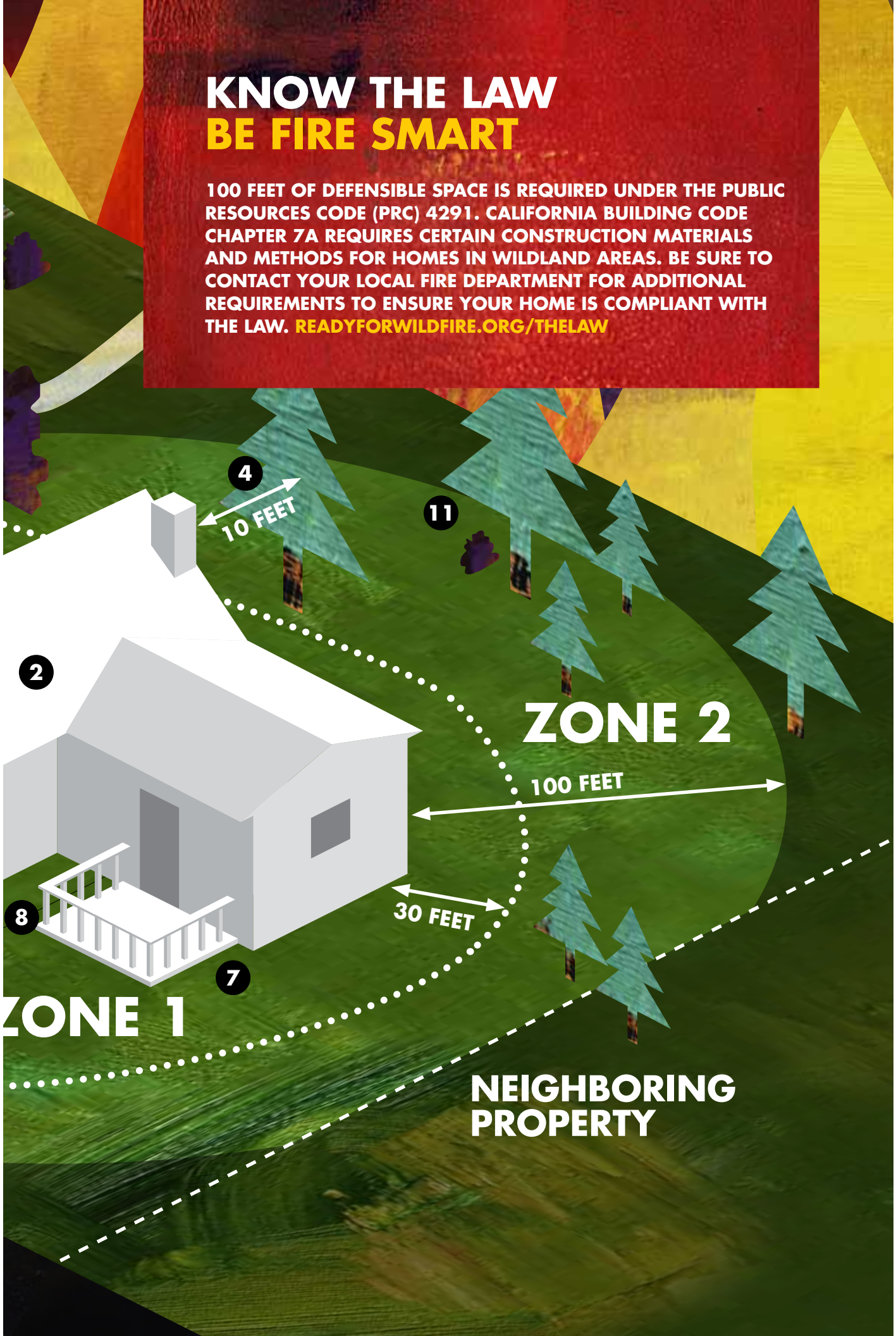
In wildland areas, spark arresters are required on all portable, gasoline-powered equipment. This includes tractors, harvesters, chainsaws, weed-trimmers and mowers.

- Keep the exhaust system, spark arresters and mower in proper working order and free of carbon buildup.
- Use the recommended grade of fuel, and don't top it off.


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KNOW THE LAW
BE FIRE SMART

100 FEET OF DEFENSIBLE SPACE IS REQUIRED UNDER THE PUBLIC RESOURCES CODE (PRC) 4291. CALIFORNIA BUILDING CODE CHAPTER 7A REQUIRES CERTAIN CONSTRUCTION MATERIALS AND METHODS FOR HOMES IN WILDLAND AREAS. BE SURE TO CONTACT YOUR LOCAL FIRE DEPARTMENT FOR ADDITIONAL REQUIREMENTS TO ENSURE YOUR HOME IS COMPLIANT WITH THE LAW. READYFORWILDFIRE.ORG/THELAW



HARDENING YOUR HOME

FLYING EMBERS CAN DESTROY HOMES UP TO A MILE AHEAD OF A WILDFIRE. PREPARE (HARDEN) YOUR HOME NOW BEFORE FIRE STARTS.

SOME THINGS YOU CAN DO TO HARDEN YOUR HOME:

Roof: Your roof is the most vulnerable part of your home. Homes with wood or shingle roofs are at high risk of being destroyed during a wildfire.

Build your roof or re-roof with materials such as composition, metal or tile. Block any spaces to prevent embers from entering and starting a fire.

Vents: Vents on homes create openings for flying embers.

- Cover all vent openings with 1/8-inch to 1/4-inch metal mesh. Do not use fiberglass or plastic mesh because they can melt and burn.
- Protect vents in eaves or cornices with baffles to block embers. (Mesh is not enough.)

Eaves and Soffits: Eaves and soffits should be protected with ignition-resistant or non-combustible materials.

Windows: Heat from a wildfire can cause windows to break even before the home ignites. This allows burning embers to enter and start fires inside. Single-paned and large windows are particularly at risk.

- Install dual-paned windows with one pane of tempered glass.
- Consider limiting the size and number of windows that face large areas of vegetation.

Decks: Surfaces within 10 feet of the building should be built with ignition-resistant, non-combustible, or other approved materials.

- Remove all combustible items from underneath your deck.

Exterior Walls: Wood products such as boards, panels or shingles are common siding materials. However, they are combustible and not good choices for fire-prone areas.

- Build or remodel your walls with ignition-resistant building materials, such as stucco, fiber or cement siding, fire-retardant-treated wood, or other approved materials.
- Be sure to extend materials from the foundation to the roof.

Rain Gutters: Screen or enclose rain gutters to prevent accumulation of plant debris.

Patio Cover: Use the same ignition-resistant materials for patio covers as a roof.

Fences: Consider using ignition-resistant or non-combustible fence materials to protect your home during a wildfire.

Additional Home Fire Safety Steps:

Go to ReadyForWildfire.org/hardening for more important information on the following:

- Driveways and Access Road Information
- Garage Safety
- Address Visibility
- Water Supply Access
- Equipment Use Safety
- Ignition-Resistant Materials

READY, SET, GO! PREPARATION GUIDES

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Developing a Wildfire Action Plan.



Step 3:
Are You Ready to Go?

A quick-reference evacuation guide.

CALIFORNIA DEPARTMENT OF FORESTRY & FIRE PROTECTION
CAL FIRE
SINCE 1885

Go to ReadyForWildfire.org for more detailed information on all three guides to prepare for and survive a wildfire.


WILDFIRE IS COMING.
ARE YOU...
SET?
GET PREPARED TO EVACUATE
BEFORE WILDFIRE STRIKES.
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THOUSANDS OF WILDFIRES STRIKE CALIFORNIA EVERY YEAR. IT'S NOT A MATTER OF IF YOUR HOME IS AT RISK, BUT WHEN.
ReadyForWildfire.org

USE THIS GUIDE TO PREPARE YOUR EVACUATION PLAN AND EMERGENCY SUPPLY KIT

Once you complete your plan, rehearse and discuss it regularly with your family. Consider practicing the plan at night as well. Keep it in a safe, visible place for quick access when a wildfire emergency occurs.

Reminder: In an emergency it is easy to become confused or panicked. Preparing your wildfire action plan in advance will help keep you focused and able to act quickly when evacuation is anticipated or needed.

For more information on wildfire evacuation planning and survival, see the Ready for Wildfire "Go!" brochure or visit ReadyforWildfire.org/go.

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KNOW THE LAW
BE READY TO EVACUATE

CALIFORNIA LAW AUTHORIZES OFFICERS TO RESTRICT ACCESS TO ANY AREA WHERE A MENACE TO PUBLIC HEALTH OR SAFETY EXISTS DUE TO A CALAMITY SUCH AS FLOOD, STORM, FIRE, EARTHQUAKE, EXPLOSION, ACCIDENT OR OTHER DISASTER. REFUSAL TO COMPLY IS A MISDEMEANOR. (PENAL CODE 409.5)

CREATE
A WILDFIRE ACTION PLAN

Your Wildfire Action Plan must be prepared and familiar to all members of your household well in advance of a wildfire. Use the checklist below to help create your plan. Each family's plan will be different, depending on a variety of issues, needs and situations.

YOUR WILDFIRE ACTION PLAN CHECKLIST:

Create an evacuation plan that includes:

- ☐ A designated emergency meeting location outside the fire or hazard area. This is critical to determine who has safely evacuated from the affected area.
- ☐ Several different escape routes from your home and community. Practice these often so everyone in your family is familiar in case of emergency.
- ☐ Have an evacuation plan for pets and large animals such as horses and other livestock.
- ☐ A family communication plan that designates an out-of-area friend or relative as a point of contact to act as a single source of communication among family members in case of separation. (It is easier to call or message one person and let them contact others than to try and call everyone when phone, cell, and internet systems can be overloaded or limited during a disaster.)

Be Prepared:

- ☐ Have fire extinguishers on hand and train your family how to use them. (Check expiration dates regularly.)
- ☐ Ensure that your family knows where your gas, electric, and water main shut-off controls are located and how to safely shut them down in an emergency.
- ☐ Assemble an Emergency Supply Kit for each person, as recommended by the American Red Cross. (See next section for details.)
- ☐ Maintain a list of emergency contact numbers posted near your phone and in your emergency supply kit.
- ☐ Keep an extra emergency supply kit in your car in case you cannot get to your home because of fire or other emergency.
- ☐ Have a portable radio or scanner so you can stay updated on the fire.
- ☐ Tell your neighbors about Ready, Set, Go! and your Wildfire Action Plan.

REMEMBER THE SIX "P's"
KEEP THESE SIX "P's" READY IN CASE IMMEDIATE EVACUATION IS REQUIRED:

- **People and pets**
- **Papers, phone numbers, & important documents**
- **Prescriptions, vitamins, and eyeglasses**
- **Pictures and irreplaceable memorabilia**
- **Personal computer hard drive and disks**
- **"Plastic" (credit cards, ATM cards) and cash**

ASSEMBLE
AN EMERGENCY SUPPLY KIT

Put together your Emergency Supply Kit long before a wildfire or other disaster occurs and keep it easily accessible so you can take it with you when you have to evacuate. Plan to be away from your home for an extended period of time. Each person should have a readily accessible Emergency Supply Kit. Backpacks work great for storing these items (except food and water) and are quick to grab. Storing food and water in a tub or chest on wheels will make it easier to transport. Keep it light enough to be able to lift it into your car.

Emergency Supply Kit Checklist:

- ☐ Three-day supply of non-perishable food and three gallons of water per person
- ☐ Map marked with at least two evacuation routes
- ☐ Prescriptions or special medications
- ☐ Change of clothing
- ☐ Extra eyeglasses or contact lenses
- ☐ An extra set of car keys, credit cards, cash or traveler's checks
- ☐ First aid kit
- ☐ Flashlight
- ☐ Battery-powered radio and extra batteries
- ☐ Sanitation supplies
- ☐ Copies of important documents (birth certificates, passports, etc.)
- ☐ Don't forget pet food and water!

Items to take if time allows:

- ☐ Easily carried valuables
- ☐ Family photos and other irreplaceable items
- ☐ Personal computer information on hard drives and disks
- ☐ Chargers for cell phones, laptops, etc.

ALWAYS KEEP A STURDY PAIR OF SHOES AND A FLASHLIGHT NEAR YOUR BED AND HANDY IN CASE OF A SUDDEN EVACUATION AT NIGHT.

FOR MORE INFORMATION ON EMERGENCY SUPPLIES, VISIT WWW.READY.GOV.

SAVE THIS
FAMILY COMMUNICATION PLAN

Fill out this form and place it near your telephone where it can easily be found by everyone in your household. Copy the form and keep it in your Emergency Supply Kits. This will allow all family members to have access to this key information in case you get separated.

WHEN WE HAVE TO EVACUATE, WE WILL MEET AT:

_____

OUR OUT-OF-AREA EMERGENCY CONTACT PERSON IS:

Name: _____ Relationship: _____

Home Phone #: _____ Cell Phone #: _____

E-mail: _____

OTHER IMPORTANT NUMBERS ARE:

Emergency 911: _____ Local Police: _____

Local Fire Department: _____ Other: _____

Other: _____ Other: _____

OUR TWO EVACUATION ROUTES ARE (SKETCH ROUTES BELOW):

READY, SET, GO! PREPARATION GUIDES

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Go to ReadyForWildfire.org for more detailed information on all three guides to prepare for and survive a wildfire.

Appendix B-1
Emergency Supply List

Additional Items to Consider Adding to an Emergency Supply Kit:

- ❑ **Prescription medications and glasses**
- ❑ **Infant formula and diapers**
- ❑ **Pet food and extra water for your pet**
- ❑ **Important family documents such as copies of insurance policies, identification and bank account records in a waterproof, portable container**
- ❑ **Cash or traveler's checks and change**
- ❑ **Emergency reference material such as a first aid book or information from www.ready.gov**
- ❑ **Sleeping bag or warm blanket for each person. Consider additional bedding if you live in a cold-weather climate.**
- ❑ **Complete change of clothing including a long sleeved shirt, long pants and sturdy shoes. Consider additional clothing if you live in a cold-weather climate.**
- ❑ **Household chlorine bleach and medicine dropper** – When diluted nine parts water to one part bleach, bleach can be used as a disinfectant. Or in an emergency, you can use it to treat water by using 16 drops of regular household liquid bleach per gallon of water. Do not use scented, color safe or bleaches with added cleaners.
- ❑ **Fire Extinguisher**
- ❑ **Matches in a waterproof container**
- ❑ **Feminine supplies and personal hygiene items**
- ❑ **Mess kits, paper cups, plates and plastic utensils, paper towels**
- ❑ **Paper and pencil**
- ❑ **Books, games, puzzles or other activities for children**

Ready

Prepare. Plan. Stay Informed.®



Emergency Supply List

FEMA

www.ready.gov



Recommended Items to Include in a Basic Emergency Supply Kit:

- **Water, one gallon of water per person per day for at least three days, for drinking and sanitation**
- **Food, at least a three-day supply of non-perishable food**
- **Battery-powered or hand crank radio and a NOAA Weather Radio with tone alert and extra batteries for both**
- **Flashlight and extra batteries**
- **First aid kit**
- **Whistle to signal for help**
- **Dust mask, to help filter contaminated air and plastic sheeting and duct tape to shelter-in-place**
- **Moist towelettes, garbage bags and plastic ties for personal sanitation**
- **Wrench or pliers to turn off utilities**
- **Can opener for food (if kit contains canned food)**
- **Local maps**

Through its *Ready* Campaign, the Federal Emergency Management Agency educates and empowers Americans to take some simple steps to prepare for and respond to potential emergencies, including natural disasters and terrorist attacks. *Ready* asks individuals to do three key things: get an emergency supply kit, make a family emergency plan, and be informed about the different types of emergencies that could occur and their appropriate responses.

All Americans should have some basic supplies on hand in order to survive for at least three days if an emergency occurs. Following is a listing of some basic items that every emergency supply kit should include. However, it is important that individuals review this list and consider where they live and the unique needs of their family in order to create an emergency supply kit that will meet these needs. Individuals should also consider having at least two emergency supply kits, one full kit at home and smaller portable kits in their workplace, vehicle or other places they spend time.

Ready

FEMA

Federal Emergency Management Agency
Washington, DC 20472

Appendix B-2

Family Emergency Communication Plan Kit



BE SMART. TAKE PART. CREATE YOUR FAMILY EMERGENCY COMMUNICATION PLAN

Join with others to prepare for emergencies and participate in America's PrepareAthon! | ready.gov/prepare

Creating your *Family Emergency Communication Plan* starts with one simple question: "What if?"

"What if something happens and I'm not with my family?" "Will I be able to reach them?" "How will I know they are safe?" "How can I let them know I'm OK?" During a disaster, you will need to send and receive information from your family.

Communication networks, such as mobile phones and computers, could be unreliable during disasters, and electricity could be disrupted. Planning in advance will help ensure that all the members of your household—including children and people with disabilities and others with access and functional needs, as well as outside caregivers—know how to reach each other and where to meet up in an emergency. Planning starts with three easy steps:

1. COLLECT.

Create a paper copy of the contact information for your family and other important people/offices, such as medical facilities, doctors, schools, or service providers.

2. SHARE.

Make sure everyone carries a copy in his or her backpack, purse, or wallet. If you complete your *Family Emergency Communication Plan* online at ready.gov/make-a-plan, you can print it onto a wallet-sized card. You should also post a copy in a central location in your home, such as your refrigerator or family bulletin board.

3. PRACTICE.

Have regular household meetings to review and practice your plan.

TEXT IS BEST!

If you are using a mobile phone, a text message may get through when a phone call will not. This is because a text message requires far less bandwidth than a phone call. Text messages may also save and then send automatically as soon as capacity becomes available.

The following sections will guide you through the process to create and practice your *Family Emergency Communication Plan*.



HOUSEHOLD INFORMATION

Write down phone numbers and email addresses for everyone in your household. Having this important information written down will help you reconnect with others in case you don't have your mobile device or computer with you or if the battery runs down. If you have a household member(s) who is Deaf or hard of hearing, or who has a speech disability and uses traditional or video relay service (VRS), include information on how to connect through relay services on a landline phone, mobile device, or computer.

SCHOOL, CHILDCARE, CAREGIVER, AND WORKPLACE EMERGENCY PLANS

Because a disaster can strike during school or work hours, you need to know their emergency response plans and how to stay informed. Discuss these plans with children, and let them know who could pick them up in an emergency. Make sure your household members with phones are signed up for alerts and warnings from their school, workplace, and/or local government. To find out more about how to sign up, see *Be Smart. Know Your Alerts and Warnings* at http://1.usa.gov/1BDloze. For children without mobile phones, make sure they know to follow instructions from a responsible adult, such as a teacher or principal.

OUT-OF-TOWN CONTACT

It is also important to identify someone outside of your community or State who can act as a central point of contact to help your household reconnect. In a disaster, it may be easier to make a long-distance phone call than to call across town because local phone lines can be jammed.

EMERGENCY MEETING PLACES

Decide on safe, familiar places where your family can go for protection or to reunite. Make sure these locations are accessible for household members with disabilities or access and functional needs. If you have pets or service animals, think about animal-friendly locations. Identify the following places:

- ☐ *Indoor*: If you live in an area where tornadoes, hurricanes, or other high-wind storms can happen, make sure everyone knows where to go for protection. This could be a small, interior, windowless room, such as a closet or bathroom, on the lowest level of a sturdy building, or a tornado safe room or storm shelter.
- ☐ *In your neighborhood*: This is a place in your neighborhood where your household members will meet if there is a fire or other emergency and you need to leave your home. The meeting place could be a big tree, a mailbox at the end of the driveway, or a neighbor's house.
- ☐ *Outside of your neighborhood*: This is a place where your family will meet if a disaster happens when you're not at home and you can't get back to your home. This could be a library, community center, house of worship, or family friend's home.

- [ ] *Outside of your town or city*: Having an out-of-town meeting place can help you reunite if a disaster happens and:
    - You cannot get home or to your out-of-neighborhood meeting place; or
    - Your family is not together and your community is instructed to evacuate the area.

    This meeting place could be the home of a relative or family friend. Make sure everyone knows the address of the meeting place and discuss ways you would get there.

OTHER IMPORTANT NUMBERS AND INFORMATION

You should also write down phone numbers for emergency services, utilities, service providers, medical providers, veterinarians, insurance companies, and other services.



SHARE

MAKE SURE EVERYONE HAS THE INFORMATION

- [ ] Make copies of your *Family Emergency Communication Plan* for each member of the household to carry in his or her wallet, backpack, or purse. Post a copy in a central place at home. Regularly check to make sure your household members are carrying their plan with them.
- [ ] Enter household and emergency contact information into all household members' mobile phones or devices.
- [ ] Store at least one emergency contact under the name "In Case of Emergency" or "ICE" for all mobile phones and devices. This will help someone identify your emergency contact if needed. Inform your emergency contact of any medical issues or other requirements you may have.
- [ ] Create a group list on all mobile phones and devices of the people you would need to communicate with if there was an emergency or disaster.
- [ ] Make sure all household members and your out-of-town contact know how to text if they have a mobile phone or device, or know alternative ways to communicate if they are unable to text.
- [ ] Read *Be Smart. Know Your Alerts and Warnings* at http://1.usa.gov/1BDloze and sign up to receive emergency information.



NOW IT'S TIME TO PRACTICE!

Once you have completed your *Family Emergency Communication Plan*, made copies for all the members of your household, and discussed it, it's time to practice!

Here are some ideas for practicing your plan:

- [ ] Practice texting and calling. Have each person practice sending a text message or calling your out-of-town contact and sending a group text to your mobile phone group list.
- [ ] Discuss what information you should send by text. You will want to let others know you are safe and where you are. Short messages like "I'm OK. At library" are good.

- [ ] Talk about who will be the lead person to send out information about the designated meeting place for the household.
- [ ] Practice gathering all household members at your indoor and neighborhood emergency meeting places. Talk about how each person would get to the identified out-of-neighborhood and out-of-town meeting places. Discuss all modes of transportation, such as public transportation, rail, and para-transit for all family members, including people with disabilities and others with access and functional needs.
- [ ] Regularly have conversations with household members and friends about the plan, such as whom and how to text or call, and where to go.
- [ ] To show why it's important to keep phone numbers written down, challenge your household members to recite important phone numbers from memory—now ask them to think about doing this in the event of an emergency.
- [ ] Make sure everyone, including children, knows how and when to call 911 for help. You should only call 911 when there is a life-threatening emergency.
- [ ] Review, update, and practice your *Family Emergency Communication Plan* at least once a year, or whenever any of your information changes.

To help start the conversation or remind your family why you are taking steps to prepare and practice, you may want to watch the 4-minute video, *It Started Like Any Other Day*, about families who have experienced disaster, at www.youtube.com/watch?v=w_omgt3MEBs. Click on the closed captioning (CC) icon on the lower right to turn on the captioning.

After you practice, talk about how it went. What worked well? What can be improved? What information, if any, needs to be updated? If you make updates, remember to print new copies of the plan for everyone.

OTHER IMPORTANT TIPS FOR COMMUNICATING IN DISASTERS[1]

- [ ] Text is best when using a mobile phone, but if you make a phone call, keep it brief and convey only vital information to emergency personnel and/or family or household members. This will minimize network congestion, free up space on the network for emergency communications, and conserve battery power. Wait 10 seconds before redialing a number. If you redial too quickly, the data from the handset to the cell sites do not have enough time to clear before you've re-sent the same data. This contributes to a clogged network.
- [ ] Conserve your mobile phone battery by reducing the brightness of your screen, placing your phone in airplane mode, and closing apps you do not need. Limit watching videos and playing video games to help reduce network congestion.
- [ ] Keep charged batteries, a car phone charger, and a solar charger available for backup power for your mobile phone, teletypewriters (TTYs), amplified phones, and caption phones. If you charge your phone in your car, be sure the car is in a well-ventilated area (e.g., not in a closed garage) to avoid life-threatening carbon monoxide poisoning.

[1] Federal Communications Commission, Public Safety and Homeland Security Bureau. (n.d.) *Tips for communicating in an emergency.* Retrieved from http://transition.fcc.gov/pshs/emergency-information/tips.html

- [ ] If driving, do not text, read texts, or make a call without a hands-free device.
- [ ] Maintain a household landline and analog phone (with battery backup if it has a cordless receiver) that can be used when mobile phone service is unavailable. Those who are Deaf or hard of hearing, or who have speech disabilities and use devices and services that depend on digital technology (e.g., VRS, Internet Protocol [IP] Relay, or captioning) should have an analog phone (e.g., TTY, amplified phone, or caption phone) with battery backup in case Internet or mobile service is down.
- [ ] If you evacuate and have a call-forwarding feature on your home phone, forward your home phone number to your mobile phone number.
- [ ] Use the Internet to communicate by email, Twitter, Facebook, and other social media networks. These communication channels allow you to share information quickly with a widespread audience or to find out if loved ones are OK. The Internet can also be used for telephone calls through Voice over Internet Protocol. For those who are Deaf or hard of hearing, or who have speech disabilities, you can make calls through your IP Relay provider.
- [ ] If you do not have a mobile phone, keep a prepaid phone card to use if needed during or after a disaster.
- [ ] Use a pay phone if available. It may have less congestion because these phones don't rely on electricity or mobile networks. In some public places, you may be able to find a TTY that can be used by those who are Deaf or hard of hearing, or who have speech disabilities.

America's PrepareAthon! is a grassroots campaign for action to get more people prepared for emergencies. Make your actions count at ready.gov/prepare.

The reader recognizes that the Federal Government provides links and informational data on various disaster preparedness resources and events and does not endorse any non-Federal events, entities, organizations, services, or products.

10 WAYS TO PARTICIPATE IN AMERICA'S PrepareAthon!℠



Access Alerts and Warnings



Test Communication Plans



Assemble or Update Supplies



Drill or Practice Emergency Response



Participate in a Class, Training, or Discussion



Plan with Neighbors



Conduct an Exercise



Make Property Safer



Document and Insure Property



Safeguard Documents

FAMILY EMERGENCY COMMUNICATION PLAN

HOUSEHOLD INFORMATION

Home #: .....
Address:.....

Name: ..... Mobile #: .....
Other # or social media: .....
Email: .....
Important medical or other information: .....
.....

Name: ..... Mobile #: .....
Other # or social media: .....
Email: .....
Important medical or other information: .....
.....

Name: ..... Mobile #: .....
Other # or social media: .....
Email: .....
Important medical or other information: .....
.....

Name: ..... Mobile #: .....
Other # or social media: .....
Email: .....
Important medical or other information: .....
.....

SCHOOL, CHILDCARE, CAREGIVER, AND WORKPLACE EMERGENCY PLANS

Name: .....
Address:.....
Emergency/Hotline #: .....
Website: .....
Emergency Plan/Pick-Up: .....

SCHOOL, CHILDCARE, CAREGIVER, AND WORKPLACE EMERGENCY PLANS

Name: .....
Address:.....
Emergency/Hotline #: .....
Website: .....
Emergency Plan/Pick-Up: .....

Name: .....
Address:.....
Emergency/Hotline #: .....
Website: .....
Emergency Plan/Pick-Up: .....

Name: .....
Address:.....
Emergency/Hotline #: .....
Website: .....
Emergency Plan/Pick-Up: .....

IN CASE OF EMERGENCY (ICE) CONTACT

Name: ..... Mobile #: .....
Home #: .....Email: .....
Address: .....

OUT-OF-TOWN CONTACT

Name: ..... Mobile #: .....
Home #: .....Email: .....
Address: .....

EMERGENCY MEETING PLACES

Indoor: .....
Instructions: .....
Neighborhood: .....
Instructions: .....

Out-of-Neighborhood: .....
Address:.....
Instructions: .....

Out-of-Town: .....
Address:.....
Instructions: .....

IMPORTANT NUMBERS OR INFORMATION

Police: ..... Dial 911 or #: .....
Fire: ..... Dial 911 or #: .....
Poison Control: .....#: .....
Doctor: .....#: .....
Doctor: .....#: .....
Pediatrician: .....#: .....
Dentist: .....#: .....
Hospital/Clinic: .....#: .....
Pharmacy: .....#: .....
Medical Insurance: .....#: .....
Policy #: .....
Medical Insurance: .....#: .....
Policy #: .....
Homeowner/Rental Insurance: .....
#: .....
Policy #: .....
Flood Insurance: .....#: .....
Policy #: .....
Veterinarian: .....#: .....
Kennel: .....#: .....
Electric Company: .....#: .....
Gas Company: .....#: .....
Water Company: .....#: .....
Alternate/Accessible Transportation: .....
#: .....
Other: .....#: .....
Other: .....#: .....
Other: .....#: .....

Appendix B-3

Family Emergency Communication Plan Cards

AMERICA'S PrepareAthon!
BE SMART. TAKE PART. PREPARE.

Ready

Write your family's name above

Family Emergency Communication Plan

IN CASE OF EMERGENCY (ICE) CONTACT

Name: ..... Mobile #: .....
Home #: ..... Email: .....
Address: .....

OUT-OF-TOWN CONTACT

Name: ..... Mobile #: .....
Home #: ..... Email: .....
Address: .....

FOLD HERE

HOUSEHOLD INFORMATION

Home #: .....
Address: .....

Name: ..... Mobile #: .....
Other # or social media: ..... Email: .....
Important medical or other information: .....

Name: ..... Mobile #: .....
Other # or social media: ..... Email: .....
Important medical or other information .....

FOLD HERE

Name: ..... Mobile #: .....
Other # or social media: ..... Email: .....
Important medical or other information: .....

Name: ..... Mobile #: .....
Other # or social media: ..... Email: .....
Important medical or other information: .....

FOLD HERE

SCHOOL, CHILDCARE , CAREGIVER, AND WORKPLACE EMERGENCY PLANS

Name: .....
Address: .....
Emergency/Hotline #: ..... Website: .....
Emergency Plan/Pick-Up: .....

Name: .....
Address: .....
Emergency/Hotline #: ..... Website: .....
Emergency Plan/Pick-Up: .....

FOLD HERE

Name: .....
Address: .....
Emergency/Hotline #: ..... Website: .....
Emergency Plan/Pick-Up: .....

Name: .....
Address: .....
Emergency/Hotline #: ..... Website: .....
Emergency Plan/Pick-Up: .....

EMERGENCY MEETING PLACES

Indoor: .....
Instructions: .....
.....

Neighborhood: .....
Instructions: .....
.....

Out-of-Neighborhood: .....
Address: .....
Instructions: .....
.....

Out-of-Town: .....
Address: .....
Instructions: .....
.....

IMPORTANT NUMBERS OR INFORMATION

Police: ..... Dial 911 or #: .....
Fire: ..... Dial 911 or #: .....
Poison Control: ..... #: .....
Doctor: ..... #: .....
Doctor: ..... #: .....
Pediatrician: ..... #: .....
Dentist: ..... #: .....
Medical Insurance: ..... #: .....
Policy #: .....
Medical Insurance: ..... #: .....
Policy #: .....
Hospital/Clinic: ..... #: .....

Pharmacy: ..... #: .....
Homeowner/Rental Insurance: ..... #: .....
Policy #: .....
Flood Insurance: ..... #: .....
Policy #: .....
Veterinarian: ..... #: .....
Kennel: ..... #: .....
Electric Company: ..... #: .....
Gas Company: ..... #: .....
Water Company: ..... #: .....
Alternate/Accessible Transportation: ..... #: .....
Other: .....
Other: .....

Appendix B-4

Sample Family Disaster Plan

American Red Cross

Family Disaster Plan

Family Last Name(s) or Household Address: **Date:**

Family Member/Household Contact Info (If needed, additional space is provided in #10 below):

Name	Home Phone	Cell Phone	Email:

Pet(s) Info:

Name:	Type:	Color:	Registration #:

Plan of Action

1. The disasters most likely to affect our household are:

2. What are the escape routes from our home?

3. If separated during an emergency, what is our meeting place near our home?

4. If we cannot return home or are asked to evacuate, what is our meeting place outside of our neighborhood?

_____

What is our route to get there and an alternate route, if the first route is impassible?

_____

_____

5. In the event our household is separated or unable to communicate with each other, our emergency contact outside of our immediate area is:

Name	Home Phone	Cell Phone	Email:

After a disaster, let your friends and family know you are okay by registering at "Safe and Well" at https://safeandwell.communityos.org/cms// or by calling 1-800-733-2767. You can also give them a call, send a quick text or update your status on social networking sites.

6. If at school/daycare, our child(ren) will be evacuated to:

Child's Name:	Evacuation Site (address and contact info):

7. Our plan for people in our household with a disability or special need is:

Person's Name:	Plan:

8. During certain emergencies local authorities may direct us to "shelter in place" in our home. An accessible, safe room where we can go, seal windows, vents and doors and listen to emergency broadcasts for instructions, is:

_____

9. Family Member Responsibilities in the Event of a Disaster

Task	Description	Family Member Responsible
Disaster Kit*	Stock the disaster kit and take it if evacuation is necessary. Include items you might want to take to an evacuation shelter. Remember to include medications and eye glasses.	
Be informed	Maintain access to NOAA or local radio, TV, email or text alerts for important and current information about disasters.	
Family Medical Information	Make sure the household medical information is taken with us if evacuation is necessary.	
Financial Information	Obtain copies of bank statements and cash in the event ATMs and credit cards do not work due to power outages. Bring copies of utility bills as proof of residence in applying for assistance.	
Pet Information	Evacuate our pet(s), keep a phone list of pet-friendly motels and animal shelters, and assemble and take the pet disaster kit.	
Sharing and Maintaining the Plan	Share the completed plan with those who need to know. Meet with household members every 6 months or as needs change to update household plan.	

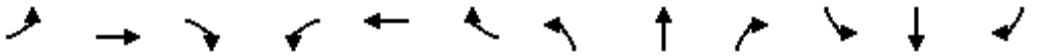
**What supplies and records should go in your disaster kit? Visit www.redcross.org*

10. Other information, if not able to be included above.

Congratulations on completing your family disaster plan! Please tell others: "We've made a family disaster plan and you can, too, with help from the American Red Cross."

Get the facts about what you should do if an emergency or disaster occurs at www.redcross.org

Appendix C
Synchro Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1578	188	160	1540	6	412	22	56	8	14	52
Future Volume (veh/h)	30	1578	188	160	1540	6	412	22	56	8	14	52
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		0.97	1.00		0.95	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	1753	209	178	1711	7	475	0	62	9	16	58
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	42	2587	785	201	3129	13	622	0	264	35	63	74
Arrive On Green	0.02	0.51	0.51	0.11	0.60	0.60	0.17	0.00	0.17	0.05	0.05	0.05
Sat Flow, veh/h	1781	5106	1550	1781	5248	21	3563	0	1512	661	1176	1395
Grp Volume(v), veh/h	33	1753	209	178	1110	608	475	0	62	25	0	58
Grp Sat Flow(s),veh/h/ln	1781	1702	1550	1781	1702	1866	1781	0	1512	1837	0	1395
Q Serve(g_s), s	2.6	36.1	10.8	13.8	27.3	27.4	17.8	0.0	4.9	1.8	0.0	5.8
Cycle Q Clear(g_c), s	2.6	36.1	10.8	13.8	27.3	27.4	17.8	0.0	4.9	1.8	0.0	5.8
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.36		1.00
Lane Grp Cap(c), veh/h	42	2587	785	201	2029	1112	622	0	264	98	0	74
V/C Ratio(X)	0.78	0.68	0.27	0.88	0.55	0.55	0.76	0.00	0.23	0.25	0.00	0.78
Avail Cap(c_a), veh/h	88	2587	785	234	2029	1112	942	0	400	133	0	101
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	68.0	25.9	19.7	61.2	16.9	16.9	55.0	0.0	49.7	63.6	0.0	65.4
Incr Delay (d2), s/veh	11.1	1.4	0.8	25.5	1.1	1.9	0.8	0.0	0.2	0.5	0.0	16.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	14.8	4.1	7.7	10.9	12.2	8.1	0.0	1.9	0.9	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.1	27.4	20.5	86.7	18.0	18.9	55.8	0.0	49.9	64.1	0.0	81.7
LnGrp LOS	E	C	C	F	B	B	E	A	D	E	A	F
Approach Vol, veh/h		1995			1896			537			83	
Approach Delay, s/veh		27.5			24.7			55.1			76.4	
Approach LOS		C			C			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.2	76.9		12.4	7.7	89.5		30.5				
Change Period (Y+Rc), s	4.4	6.0		4.9	4.4	* 6		6.0				
Max Green Setting (Gmax), s	18.4	53.2		10.1	6.9	* 65		37.0				
Max Q Clear Time (g_c+I1), s	15.8	38.1		7.8	4.6	29.4		19.8				
Green Ext Time (p_c), s	0.1	12.5		0.0	0.0	22.4		1.0				

Intersection Summary			
HCM 6th Ctrl Delay		30.5	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1540	82	2	1486	2	120	6	22	12	10	2
Future Volume (veh/h)	0	1540	82	2	1486	2	120	6	22	12	10	2
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		0.96	1.00		0.96	1.00		0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1711	91	2	1651	2	133	7	24	13	11	2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1	2057	109	4	2307	3	765	79	273	52	43	8
Arrive On Green	0.00	0.60	0.60	0.00	0.63	0.63	0.22	0.22	0.22	0.03	0.03	0.03
Sat Flow, veh/h	1781	3428	181	1781	3642	4	3456	359	1231	1781	1474	268
Grp Volume(v), veh/h	0	880	922	2	805	848	133	0	31	13	0	13
Grp Sat Flow(s),veh/h/ln	1781	1777	1832	1781	1777	1869	1728	0	1590	1781	0	1742
Q Serve(g_s), s	0.0	55.0	56.7	0.2	42.5	42.6	4.4	0.0	2.2	1.0	0.0	1.0
Cycle Q Clear(g_c), s	0.0	55.0	56.7	0.2	42.5	42.6	4.4	0.0	2.2	1.0	0.0	1.0
Prop In Lane	1.00		0.10	1.00		0.00	1.00		0.77	1.00		0.15
Lane Grp Cap(c), veh/h	1	1066	1099	4	1126	1184	765	0	352	52	0	51
V/C Ratio(X)	0.00	0.83	0.84	0.53	0.72	0.72	0.17	0.00	0.09	0.25	0.00	0.25
Avail Cap(c_a), veh/h	51	1066	1099	51	1126	1184	765	0	352	52	0	51
HCM Platoon Ratio	1.00	1.00	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	1.00	0.74	0.74	0.74	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.2	22.5	69.8	17.2	17.2	44.1	0.0	43.3	66.4	0.0	66.5
Incr Delay (d2), s/veh	0.0	7.3	7.7	27.5	2.9	2.8	0.5	0.0	0.5	11.1	0.0	11.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	24.3	25.8	0.1	17.6	18.5	1.9	0.0	0.9	0.6	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	29.5	30.2	97.3	20.1	20.0	44.6	0.0	43.8	77.5	0.0	78.1
LnGrp LOS	A	C	C	F	C	B	D	A	D	E	A	E
Approach Vol, veh/h		1802			1655			164			26	
Approach Delay, s/veh		29.9			20.1			44.5			77.8	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.7	90.0		9.0	0.0	94.7		36.3				
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		5.3				
Max Green Setting (Gmax), s	4.3	* 81		4.1	4.0	80.3		31.0				
Max Q Clear Time (g_c+I1), s	2.2	58.7		3.0	0.0	44.6		6.4				
Green Ext Time (p_c), s	0.0	20.0		0.0	0.0	28.9		0.3				

Intersection Summary	
HCM 6th Ctrl Delay	26.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	1514	28	28	1316	60	44	40	26	188	26	128
Future Volume (veh/h)	28	1514	28	28	1316	60	44	40	26	188	26	128
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	1760	33	33	1530	70	51	47	30	219	30	149
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	42	2293	989	42	2293	989	194	230	147	290	58	288
Arrive On Green	0.02	0.65	0.65	0.02	0.65	0.65	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1781	3554	1532	1781	3554	1532	1196	1050	670	1308	264	1313
Grp Volume(v), veh/h	33	1760	33	33	1530	70	51	0	77	219	0	179
Grp Sat Flow(s),veh/h/ln	1781	1777	1532	1781	1777	1532	1196	0	1721	1308	0	1577
Q Serve(g_s), s	2.6	48.7	1.1	2.6	37.6	2.4	5.5	0.0	5.1	23.0	0.0	14.0
Cycle Q Clear(g_c), s	2.6	48.7	1.1	2.6	37.6	2.4	19.5	0.0	5.1	28.1	0.0	14.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		0.83
Lane Grp Cap(c), veh/h	42	2293	989	42	2293	989	194	0	377	290	0	345
V/C Ratio(X)	0.78	0.77	0.03	0.78	0.67	0.07	0.26	0.00	0.20	0.76	0.00	0.52
Avail Cap(c_a), veh/h	88	2293	989	71	2293	989	232	0	431	328	0	391
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.47	0.47	0.47	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	68.0	17.5	9.0	68.0	15.5	9.2	56.7	0.0	44.7	56.2	0.0	48.2
Incr Delay (d2), s/veh	5.5	1.2	0.0	11.1	1.6	0.1	0.3	0.0	0.1	7.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	19.4	0.4	1.3	15.2	0.8	1.7	0.0	2.2	8.2	0.0	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.5	18.7	9.0	79.1	17.0	9.4	57.0	0.0	44.8	63.2	0.0	48.6
LnGrp LOS	E	B	A	E	B	A	E	A	D	E	A	D
Approach Vol, veh/h		1826			1633			128			398	
Approach Delay, s/veh		19.5			18.0			49.7			56.6	
Approach LOS		B			B			D			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.7	96.3		36.0	7.7	96.3		36.0
Change Period (Y+Rc), s	4.4	* 6		5.3	4.4	6.0		* 5.3
Max Green Setting (Gmax), s	5.6	* 84		34.7	6.9	82.7		* 35
Max Q Clear Time (g_c+I1), s	4.6	50.7		30.1	4.6	39.6		21.5
Green Ext Time (p_c), s	0.0	29.0		0.5	0.0	32.0		0.3

Intersection Summary	
HCM 6th Ctrl Delay	23.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	26	54	12	24	26
Future Vol, veh/h	18	26	54	12	24	26
Conflicting Peds, #/hr	10	10	0	12	12	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	31	65	14	29	31

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	183	94	0	0	91	0
Stage 1	84	-	-	-	-	-
Stage 2	99	-	-	-	-	-
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	806	963	-	-	1504	-
Stage 1	939	-	-	-	-	-
Stage 2	925	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	774	943	-	-	1487	-
Mov Cap-2 Maneuver	774	-	-	-	-	-
Stage 1	929	-	-	-	-	-
Stage 2	898	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	3.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	866	1487	-
HCM Lane V/C Ratio	-	-	0.061	0.019	-
HCM Control Delay (s)	-	-	9.4	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	66	0	0	0	0	44
Future Vol, veh/h	66	0	0	0	0	44
Conflicting Peds, #/hr	10	0	0	10	10	10
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	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	80	0	0	0	0	53

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	11	0	-	0	181	21
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	170	-
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	1608	-	-	-	808	1056
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	860	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1593	-	-	-	752	1036
Mov Cap-2 Maneuver	-	-	-	-	752	-
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	851	-

Approach	EB	WB	SB
HCM Control Delay, s	7.4	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1593	-	-	-	1036
HCM Lane V/C Ratio	0.05	-	-	-	0.051
HCM Control Delay (s)	7.4	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.2

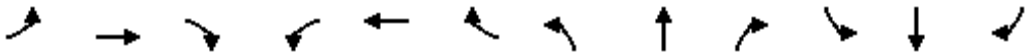
Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	18	18	56	94	10
Future Vol, veh/h	6	18	18	56	94	10
Conflicting Peds, #/hr	10	10	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	26	26	80	134	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	293	161	158	0	-	0
Stage 1	151	-	-	-	-	-
Stage 2	142	-	-	-	-	-
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	698	884	1422	-	-	-
Stage 1	877	-	-	-	-	-
Stage 2	885	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	671	867	1408	-	-	-
Mov Cap-2 Maneuver	671	-	-	-	-	-
Stage 1	852	-	-	-	-	-
Stage 2	876	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	1.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1408	-	808	-	-
HCM Lane V/C Ratio	0.018	-	0.042	-	-
HCM Control Delay (s)	7.6	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	348	20	524	312	18	26	40	790	18	100	16
Future Volume (veh/h)	28	348	20	524	312	18	26	40	790	18	100	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		0.97	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	382	22	576	343	20	29	44	868	20	110	18
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	43	661	38	675	1243	72	41	670	862	31	550	90
Arrive On Green	0.02	0.19	0.19	0.20	0.37	0.37	0.02	0.36	0.36	0.02	0.35	0.35
Sat Flow, veh/h	1781	3407	195	3456	3404	197	1781	1870	1543	1781	1561	255
Grp Volume(v), veh/h	31	198	206	576	178	185	29	44	868	20	0	128
Grp Sat Flow(s),veh/h/ln	1781	1777	1826	1728	1777	1824	1781	1870	1543	1781	0	1816
Q Serve(g_s), s	1.6	9.2	9.3	14.6	6.4	6.5	1.5	1.4	32.4	1.0	0.0	4.4
Cycle Q Clear(g_c), s	1.6	9.2	9.3	14.6	6.4	6.5	1.5	1.4	32.4	1.0	0.0	4.4
Prop In Lane	1.00		0.11	1.00		0.11	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	43	344	354	675	649	666	41	670	862	31	0	640
V/C Ratio(X)	0.73	0.58	0.58	0.85	0.27	0.28	0.71	0.07	1.01	0.64	0.00	0.20
Avail Cap(c_a), veh/h	126	550	565	1360	1143	1173	79	670	862	110	0	640
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	43.9	33.1	33.1	35.2	20.3	20.3	43.9	19.1	20.4	44.2	0.0	20.4
Incr Delay (d2), s/veh	8.5	2.4	2.4	1.2	0.4	0.4	8.2	0.2	32.4	8.0	0.0	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	0.8	4.1	4.3	6.1	2.7	2.8	0.7	0.6	23.9	0.5	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.3	35.5	35.5	36.4	20.6	20.6	52.1	19.3	52.7	52.1	0.0	21.1
LnGrp LOS	D	D	D	D	C	C	D	B	F	D	A	C
Approach Vol, veh/h		435			939			941			148	
Approach Delay, s/veh		36.7			30.3			51.1			25.3	
Approach LOS		D			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	38.1	22.1	24.3	6.5	37.6	6.6	39.8
Change Period (Y+Rc), s	4.4	5.7	4.4	6.8	4.4	* 5.7	4.4	* 6.8
Max Green Setting (Gmax), s	5.6	29.5	35.6	28.0	4.0	* 32	6.4	* 58
Max Q Clear Time (g_c+I1), s	3.0	34.4	16.6	11.3	3.5	6.4	3.6	8.5
Green Ext Time (p_c), s	0.0	0.0	1.1	3.2	0.0	0.9	0.0	3.8

Intersection Summary	
HCM 6th Ctrl Delay	39.1
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



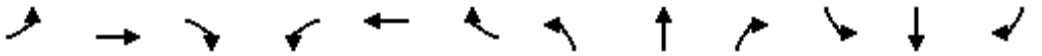
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	948	190	68	576	260	188
Future Volume (veh/h)	948	190	68	576	260	188
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	998	200	72	606	274	198
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1795	771	93	2148	926	425
Arrive On Green	0.51	0.51	0.05	0.60	0.27	0.27
Sat Flow, veh/h	3647	1526	1781	3647	3456	1585
Grp Volume(v), veh/h	998	200	72	606	274	198
Grp Sat Flow(s),veh/h/ln	1777	1526	1781	1777	1728	1585
Q Serve(g_s), s	18.0	7.0	3.7	7.6	5.9	9.7
Cycle Q Clear(g_c), s	18.0	7.0	3.7	7.6	5.9	9.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1795	771	93	2148	926	425
V/C Ratio(X)	0.56	0.26	0.78	0.28	0.30	0.47
Avail Cap(c_a), veh/h	1795	771	222	2450	926	425
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	15.9	13.1	43.7	8.8	27.1	28.5
Incr Delay (d2), s/veh	1.2	0.8	5.1	0.1	0.8	3.6
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	2.5	1.8	2.7	2.5	4.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.1	14.0	48.8	8.9	27.9	32.2
LnGrp LOS	B	B	D	A	C	C
Approach Vol, veh/h	1198			678	472	
Approach Delay, s/veh	16.6			13.2	29.7	
Approach LOS	B			B	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	9.3	54.0				63.3	30.0
Change Period (Y+Rc), s	4.4	6.9				* 6.9	5.0
Max Green Setting (Gmax), s	11.6	47.1				* 64	25.0
Max Q Clear Time (g_c+I1), s	5.7	20.0				9.6	11.7
Green Ext Time (p_c), s	0.0	13.0				9.2	1.2

Intersection Summary	
HCM 6th Ctrl Delay	18.3
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	1269	212	249	1634	2	290	26	155	3	24	45
Future Volume (veh/h)	93	1269	212	249	1634	2	290	26	155	3	24	45
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		0.96	1.00		0.95	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	104	1426	238	280	1836	2	347	0	174	3	27	51
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	2315	702	304	2917	3	572	0	243	9	82	68
Arrive On Green	0.07	0.45	0.45	0.17	0.55	0.55	0.16	0.00	0.16	0.05	0.05	0.05
Sat Flow, veh/h	1781	5106	1548	1781	5267	6	3563	0	1513	186	1675	1397
Grp Volume(v), veh/h	104	1426	238	280	1186	652	347	0	174	30	0	51
Grp Sat Flow(s),veh/h/ln	1781	1702	1548	1781	1702	1869	1781	0	1513	1861	0	1397
Q Serve(g_s), s	7.4	27.1	12.7	19.8	30.6	30.6	11.6	0.0	14.0	2.0	0.0	4.6
Cycle Q Clear(g_c), s	7.4	27.1	12.7	19.8	30.6	30.6	11.6	0.0	14.0	2.0	0.0	4.6
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.10		1.00
Lane Grp Cap(c), veh/h	125	2315	702	304	1885	1035	572	0	243	91	0	68
V/C Ratio(X)	0.83	0.62	0.34	0.92	0.63	0.63	0.61	0.00	0.72	0.33	0.00	0.75
Avail Cap(c_a), veh/h	125	2315	702	315	1885	1035	1030	0	437	118	0	88
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.7	26.5	22.6	52.2	19.6	19.6	50.0	0.0	50.9	58.8	0.0	60.1
Incr Delay (d2), s/veh	33.6	1.2	1.3	30.0	1.6	2.9	0.4	0.0	1.5	0.8	0.0	15.2
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	4.5	11.2	4.9	11.4	12.3	13.8	5.2	0.0	5.4	1.0	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.3	27.8	23.9	82.2	21.2	22.5	50.3	0.0	52.4	59.6	0.0	75.3
LnGrp LOS	F	C	C	F	C	C	D	A	D	E	A	E
Approach Vol, veh/h		1768			2118			521			81	
Approach Delay, s/veh		31.0			29.6			51.0			69.5	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	26.2	64.0		11.2	13.4	76.9		26.6				
Change Period (Y+Rc), s	4.4	6.0		4.9	4.4	* 6		6.0				
Max Green Setting (Gmax), s	22.6	39.0		8.1	9.0	* 53		37.0				
Max Q Clear Time (g_c+I1), s	21.8	29.1		6.6	9.4	32.6		16.0				
Green Ext Time (p_c), s	0.0	7.8		0.0	0.0	15.8		1.0				

Intersection Summary		
HCM 6th Ctrl Delay	33.4	
HCM 6th LOS	C	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	1187	137	29	1727	21	96	6	36	17	5	3
Future Volume (veh/h)	18	1187	137	29	1727	21	96	6	36	17	5	3
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		0.96	1.00		0.97	1.00		0.84
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	1236	143	30	1799	22	100	6	38	18	5	3
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	27	1733	200	38	1966	24	840	52	330	60	34	21
Arrive On Green	0.02	0.54	0.54	0.02	0.55	0.55	0.24	0.24	0.24	0.03	0.03	0.03
Sat Flow, veh/h	1781	3202	369	1781	3594	44	3456	214	1357	1781	1017	610
Grp Volume(v), veh/h	19	684	695	30	888	933	100	0	44	18	0	8
Grp Sat Flow(s),veh/h/ln	1781	1777	1794	1781	1777	1861	1728	0	1571	1781	0	1628
Q Serve(g_s), s	1.4	36.7	37.2	2.1	57.9	58.3	2.9	0.0	2.8	1.3	0.0	0.6
Cycle Q Clear(g_c), s	1.4	36.7	37.2	2.1	57.9	58.3	2.9	0.0	2.8	1.3	0.0	0.6
Prop In Lane	1.00		0.21	1.00		0.02	1.00		0.86	1.00		0.38
Lane Grp Cap(c), veh/h	27	962	971	38	972	1018	840	0	382	60	0	55
V/C Ratio(X)	0.69	0.71	0.72	0.79	0.91	0.92	0.12	0.00	0.12	0.30	0.00	0.15
Avail Cap(c_a), veh/h	58	962	971	92	972	1018	840	0	382	60	0	55
HCM Platoon Ratio	1.00	1.00	1.00	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	0.54	0.54	0.54	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	62.7	21.9	22.0	62.4	26.2	26.3	37.8	0.0	37.7	60.4	0.0	60.1
Incr Delay (d2), s/veh	11.1	4.5	4.5	7.3	8.6	8.6	0.3	0.0	0.6	12.4	0.0	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	16.1	16.5	1.0	25.8	27.2	1.3	0.0	1.2	0.8	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.9	26.3	26.5	69.6	34.8	34.9	38.1	0.0	38.3	72.8	0.0	65.6
LnGrp LOS	E	C	C	E	C	C	D	A	D	E	A	E
Approach Vol, veh/h		1398			1851			144			26	
Approach Delay, s/veh		27.1			35.4			38.1			70.6	
Approach LOS		C			D			D			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.1	75.3		9.2	6.4	76.0		36.4
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		5.3
Max Green Setting (Gmax), s	6.6	* 66		4.3	4.2	67.8		31.1
Max Q Clear Time (g_c+I1), s	4.1	39.2		3.3	3.4	60.3		4.9
Green Ext Time (p_c), s	0.0	19.8		0.0	0.0	7.1		0.3

Intersection Summary	
HCM 6th Ctrl Delay	32.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	1097	53	77	1614	222	42	27	45	161	42	63
Future Volume (veh/h)	102	1097	53	77	1614	222	42	27	45	161	42	63
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	110	1180	57	83	1735	239	45	29	48	173	45	68
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	2204	950	104	2145	924	233	123	203	264	130	197
Arrive On Green	0.07	0.62	0.62	0.06	0.60	0.60	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1781	3554	1531	1781	3554	1531	1266	617	1022	1306	656	991
Grp Volume(v), veh/h	110	1180	57	83	1735	239	45	0	77	173	0	113
Grp Sat Flow(s),veh/h/ln	1781	1777	1531	1781	1777	1531	1266	0	1639	1306	0	1646
Q Serve(g_s), s	7.8	24.2	1.9	5.9	48.4	9.4	4.1	0.0	5.1	16.4	0.0	7.6
Cycle Q Clear(g_c), s	7.8	24.2	1.9	5.9	48.4	9.4	11.6	0.0	5.1	21.5	0.0	7.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.62	1.00		0.60
Lane Grp Cap(c), veh/h	134	2204	950	104	2145	924	233	0	326	264	0	327
V/C Ratio(X)	0.82	0.54	0.06	0.79	0.81	0.26	0.19	0.00	0.24	0.66	0.00	0.35
Avail Cap(c_a), veh/h	134	2204	950	177	2145	924	275	0	380	304	0	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.63	0.63	0.63	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.4	13.8	9.6	59.5	19.6	11.9	49.1	0.0	43.1	52.2	0.0	44.1
Incr Delay (d2), s/veh	21.1	0.6	0.1	5.1	3.4	0.7	0.1	0.0	0.1	2.7	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	4.3	9.6	0.6	2.8	20.0	3.3	1.3	0.0	2.1	5.6	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.5	14.4	9.7	64.6	23.0	12.6	49.3	0.0	43.3	54.8	0.0	44.4
LnGrp LOS	E	B	A	E	C	B	D	A	D	D	A	D
Approach Vol, veh/h		1347			2057			122			286	
Approach Delay, s/veh		19.5			23.5			45.5			50.7	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.9	85.4		30.7	14.0	83.3		30.7
Change Period (Y+Rc), s	4.4	* 6		5.3	4.4	6.0		* 5.3
Max Green Setting (Gmax), s	12.6	* 71		29.3	9.6	73.4		* 30
Max Q Clear Time (g_c+I1), s	7.9	26.2		23.5	9.8	50.4		13.6
Green Ext Time (p_c), s	0.0	24.9		0.4	0.0	21.0		0.3

Intersection Summary	
HCM 6th Ctrl Delay	24.8
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	36	45	24	42	56
Future Vol, veh/h	21	36	45	24	42	56
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	43	54	29	51	67

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	258	89	0	0	93	0
Stage 1	79	-	-	-	-	-
Stage 2	179	-	-	-	-	-
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	731	969	-	-	1501	-
Stage 1	944	-	-	-	-	-
Stage 2	852	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	691	951	-	-	1487	-
Mov Cap-2 Maneuver	691	-	-	-	-	-
Stage 1	935	-	-	-	-	-
Stage 2	814	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	3.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	835	1487	-
HCM Lane V/C Ratio	-	-	0.082	0.034	-
HCM Control Delay (s)	-	-	9.7	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Int Delay, s/veh	8.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	69	0	0	0	0	77
Future Vol, veh/h	69	0	0	0	0	77
Conflicting Peds, #/hr	10	0	0	10	10	10
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	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	83	0	0	0	0	93

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	11	0	-	0	187	21
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	176	-
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	1608	-	-	-	802	1056
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	855	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1593	-	-	-	745	1036
Mov Cap-2 Maneuver	-	-	-	-	745	-
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	846	-

Approach	EB	WB	SB
HCM Control Delay, s	7.4	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1593	-	-	-	1036
HCM Lane V/C Ratio	0.052	-	-	-	0.09
HCM Control Delay (s)	7.4	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

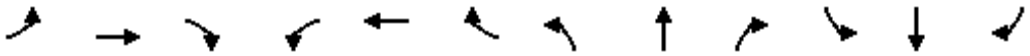
Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	29	33	114	56	18
Future Vol, veh/h	11	29	33	114	56	18
Conflicting Peds, #/hr	10	10	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	33	38	130	64	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	300	94	94	0	-	0
Stage 1	84	-	-	-	-	-
Stage 2	216	-	-	-	-	-
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	691	963	1500	-	-	-
Stage 1	939	-	-	-	-	-
Stage 2	820	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	659	945	1486	-	-	-
Mov Cap-2 Maneuver	659	-	-	-	-	-
Stage 1	903	-	-	-	-	-
Stage 2	812	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	1.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1486	-	844	-	-
HCM Lane V/C Ratio	0.025	-	0.054	-	-
HCM Control Delay (s)	7.5	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	395	27	633	309	21	42	89	773	20	39	30
Future Volume (veh/h)	57	395	27	633	309	21	42	89	773	20	39	30
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		0.97	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	425	29	681	332	23	45	96	831	22	42	32
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	79	685	47	778	1293	89	57	608	858	33	303	231
Arrive On Green	0.04	0.20	0.20	0.23	0.38	0.38	0.03	0.32	0.32	0.02	0.31	0.31
Sat Flow, veh/h	1781	3367	229	3456	3362	231	1781	1870	1541	1781	971	740
Grp Volume(v), veh/h	61	223	231	681	175	180	45	96	831	22	0	74
Grp Sat Flow(s),veh/h/ln	1781	1777	1819	1728	1777	1817	1781	1870	1541	1781	0	1712
Q Serve(g_s), s	3.2	10.7	10.8	17.8	6.3	6.4	2.3	3.4	30.4	1.1	0.0	2.9
Cycle Q Clear(g_c), s	3.2	10.7	10.8	17.8	6.3	6.4	2.3	3.4	30.4	1.1	0.0	2.9
Prop In Lane	1.00		0.13	1.00		0.13	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	79	362	370	778	684	699	57	608	858	33	0	533
V/C Ratio(X)	0.78	0.62	0.62	0.87	0.26	0.26	0.79	0.16	0.97	0.66	0.00	0.14
Avail Cap(c_a), veh/h	185	532	544	1278	1024	1047	88	608	858	109	0	591
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	44.3	33.9	34.0	35.0	19.6	19.7	45.0	22.5	20.4	45.6	0.0	23.2
Incr Delay (d2), s/veh	6.0	2.7	2.7	2.2	0.3	0.3	11.1	0.1	23.3	8.1	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	1.5	4.8	5.0	7.5	2.6	2.7	1.2	1.5	21.3	0.6	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.3	36.7	36.7	37.2	19.9	20.0	56.1	22.6	43.8	53.8	0.0	23.3
LnGrp LOS	D	D	D	D	B	B	E	C	D	D	A	C
Approach Vol, veh/h		515			1036			972			96	
Approach Delay, s/veh		38.3			31.3			42.3			30.3	
Approach LOS		D			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	36.1	25.5	25.8	7.4	34.8	8.5	42.8
Change Period (Y+Rc), s	4.4	5.7	4.4	6.8	4.4	* 5.7	4.4	* 6.8
Max Green Setting (Gmax), s	5.7	30.4	34.6	28.0	4.6	* 32	9.7	* 54
Max Q Clear Time (g_c+I1), s	3.1	32.4	19.8	12.8	4.3	4.9	5.2	8.4
Green Ext Time (p_c), s	0.0	0.0	1.3	3.5	0.0	0.5	0.0	3.7

Intersection Summary	
HCM 6th Ctrl Delay	36.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



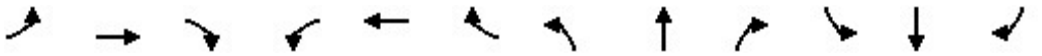
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	927	252	158	800	179	150
Future Volume (veh/h)	927	252	158	800	179	150
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1008	274	172	870	195	163
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1624	696	207	2207	863	396
Arrive On Green	0.46	0.46	0.12	0.62	0.25	0.25
Sat Flow, veh/h	3647	1524	1781	3647	3456	1585
Grp Volume(v), veh/h	1008	274	172	870	195	163
Grp Sat Flow(s),veh/h/ln	1777	1524	1781	1777	1728	1585
Q Serve(g_s), s	19.8	11.0	8.7	11.3	4.1	7.9
Cycle Q Clear(g_c), s	19.8	11.0	8.7	11.3	4.1	7.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1624	696	207	2207	863	396
V/C Ratio(X)	0.62	0.39	0.83	0.39	0.23	0.41
Avail Cap(c_a), veh/h	1624	696	360	2558	863	396
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	19.0	16.6	39.8	8.8	27.5	28.9
Incr Delay (d2), s/veh	1.8	1.7	3.3	0.2	0.6	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	4.0	3.9	4.0	1.8	3.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.7	18.2	43.1	9.0	28.1	32.0
LnGrp LOS	C	B	D	A	C	C
Approach Vol, veh/h	1282			1042	358	
Approach Delay, s/veh	20.2			14.6	29.9	
Approach LOS	C			B	C	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	15.1	49.0			64.1	28.0
Change Period (Y+Rc), s	4.4	6.9			* 6.9	5.0
Max Green Setting (Gmax), s	18.6	42.1			* 66	23.0
Max Q Clear Time (g_c+I1), s	10.7	21.8			13.3	9.9
Green Ext Time (p_c), s	0.1	11.5			14.9	0.9

Intersection Summary	
HCM 6th Ctrl Delay	19.3
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	1642	196	167	1602	7	429	23	59	9	15	55
Future Volume (veh/h)	32	1642	196	167	1602	7	429	23	59	9	15	55
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		0.97	1.00		0.95	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	1824	218	186	1780	8	496	0	66	10	17	61
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	2530	768	209	3079	14	639	0	271	38	64	78
Arrive On Green	0.03	0.50	0.50	0.12	0.59	0.59	0.18	0.00	0.18	0.06	0.06	0.06
Sat Flow, veh/h	1781	5106	1550	1781	5246	24	3563	0	1513	680	1156	1401
Grp Volume(v), veh/h	36	1824	218	186	1155	633	496	0	66	27	0	61
Grp Sat Flow(s),veh/h/ln	1781	1702	1550	1781	1702	1865	1781	0	1513	1836	0	1401
Q Serve(g_s), s	2.8	39.3	11.6	14.4	29.7	29.7	18.6	0.0	5.2	2.0	0.0	6.0
Cycle Q Clear(g_c), s	2.8	39.3	11.6	14.4	29.7	29.7	18.6	0.0	5.2	2.0	0.0	6.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.37		1.00
Lane Grp Cap(c), veh/h	46	2530	768	209	1998	1095	639	0	271	102	0	78
V/C Ratio(X)	0.78	0.72	0.28	0.89	0.58	0.58	0.78	0.00	0.24	0.26	0.00	0.78
Avail Cap(c_a), veh/h	88	2530	768	234	1998	1095	942	0	400	132	0	101
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.8	27.7	20.7	60.9	18.1	18.1	54.8	0.0	49.3	63.4	0.0	65.3
Incr Delay (d2), s/veh	10.1	1.8	0.9	27.6	1.2	2.2	1.2	0.0	0.2	0.5	0.0	18.9
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	1.4	16.3	4.4	8.1	11.9	13.3	8.5	0.0	2.0	0.9	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.8	29.5	21.7	88.4	19.3	20.3	56.0	0.0	49.5	63.9	0.0	84.2
LnGrp LOS	E	C	C	F	B	C	E	A	D	E	A	F
Approach Vol, veh/h		2078			1974			562			88	
Approach Delay, s/veh		29.6			26.1			55.2			77.9	
Approach LOS		C			C			E			E	

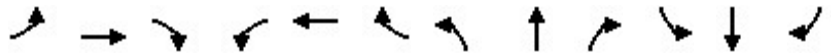
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.8	75.4		12.7	8.0	88.2		31.1				
Change Period (Y+Rc), s	4.4	6.0		4.9	4.4	* 6		6.0				
Max Green Setting (Gmax), s	18.4	53.2		10.1	6.9	* 65		37.0				
Max Q Clear Time (g_c+I1), s	16.4	41.3		8.0	4.8	31.7		20.6				
Green Ext Time (p_c), s	0.1	10.4		0.0	0.0	22.4		1.0				

Intersection Summary		
HCM 6th Ctrl Delay		32.1
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1602	86	3	1546	3	115	7	23	13	11	3
Future Volume (veh/h)	0	1602	86	3	1546	3	115	7	23	13	11	3
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		0.96	1.00		0.96	1.00		0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1780	96	3	1718	3	128	8	26	14	12	3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1	2052	110	6	2306	4	765	83	270	52	40	10
Arrive On Green	0.00	0.60	0.60	0.00	0.63	0.63	0.22	0.22	0.22	0.03	0.03	0.03
Sat Flow, veh/h	1781	3426	183	1781	3639	6	3456	375	1218	1781	1366	341
Grp Volume(v), veh/h	0	915	961	3	839	882	128	0	34	14	0	15
Grp Sat Flow(s),veh/h/ln	1781	1777	1832	1781	1777	1869	1728	0	1593	1781	0	1707
Q Serve(g_s), s	0.0	59.6	61.9	0.2	45.8	45.9	4.2	0.0	2.4	1.1	0.0	1.2
Cycle Q Clear(g_c), s	0.0	59.6	61.9	0.2	45.8	45.9	4.2	0.0	2.4	1.1	0.0	1.2
Prop In Lane	1.00		0.10	1.00		0.00	1.00		0.76	1.00		0.20
Lane Grp Cap(c), veh/h	1	1064	1097	6	1126	1184	765	0	353	52	0	50
V/C Ratio(X)	0.00	0.86	0.88	0.54	0.74	0.75	0.17	0.00	0.10	0.27	0.00	0.30
Avail Cap(c_a), veh/h	51	1064	1097	51	1126	1184	765	0	353	52	0	50
HCM Platoon Ratio	1.00	1.00	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	1.00	0.68	0.68	0.68	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	23.2	23.7	69.7	17.8	17.8	44.1	0.0	43.4	66.5	0.0	66.5
Incr Delay (d2), s/veh	0.0	9.1	9.8	18.5	3.1	2.9	0.5	0.0	0.5	12.2	0.0	14.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	26.7	28.7	0.1	19.0	20.0	1.9	0.0	1.0	0.7	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	32.3	33.5	88.2	20.9	20.8	44.5	0.0	43.9	78.7	0.0	81.3
LnGrp LOS	A	C	C	F	C	C	D	A	D	E	A	F
Approach Vol, veh/h		1876			1724			162			29	
Approach Delay, s/veh		32.9			20.9			44.4			80.0	
Approach LOS		C			C			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	89.9		9.0	0.0	94.7		36.3				
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		5.3				
Max Green Setting (Gmax), s	4.6	* 81		4.1	4.0	80.3		31.0				
Max Q Clear Time (g_c+I1), s	2.2	63.9		3.2	0.0	47.9		6.2				
Green Ext Time (p_c), s	0.0	15.7		0.0	0.0	27.4		0.3				

Intersection Summary	
HCM 6th Ctrl Delay	28.3
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1575	30	30	1369	63	46	52	28	196	28	134
Future Volume (veh/h)	30	1575	30	30	1369	63	46	52	28	196	28	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.97	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	1831	35	35	1592	73	53	60	33	228	33	156
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	45	2235	963	45	2235	963	205	262	144	297	65	305
Arrive On Green	0.03	0.63	0.63	0.03	0.63	0.63	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1781	3554	1532	1781	3554	1532	1186	1119	615	1290	276	1305
Grp Volume(v), veh/h	35	1831	35	35	1592	73	53	0	93	228	0	189
Grp Sat Flow(s),veh/h/ln	1781	1777	1532	1781	1777	1532	1186	0	1734	1290	0	1581
Q Serve(g_s), s	2.7	55.2	1.2	2.7	42.2	2.6	5.7	0.0	6.1	24.3	0.0	14.6
Cycle Q Clear(g_c), s	2.7	55.2	1.2	2.7	42.2	2.6	20.3	0.0	6.1	30.4	0.0	14.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.35	1.00		0.83
Lane Grp Cap(c), veh/h	45	2235	963	45	2235	963	205	0	405	297	0	370
V/C Ratio(X)	0.78	0.82	0.04	0.78	0.71	0.08	0.26	0.00	0.23	0.77	0.00	0.51
Avail Cap(c_a), veh/h	88	2235	963	71	2235	963	225	0	435	315	0	392
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.40	0.40	0.40	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.9	19.9	9.9	67.9	17.5	10.1	55.5	0.0	43.4	55.7	0.0	46.7
Incr Delay (d2), s/veh	4.4	1.4	0.0	10.4	2.0	0.2	0.2	0.0	0.1	9.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	22.3	0.4	1.4	17.3	0.9	1.7	0.0	2.7	8.7	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.2	21.3	9.9	78.2	19.4	10.3	55.7	0.0	43.5	64.8	0.0	47.1
LnGrp LOS	E	C	A	E	B	B	E	A	D	E	A	D
Approach Vol, veh/h		1901			1700			146			417	
Approach Delay, s/veh		22.0			20.2			48.0			56.8	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.9	94.1		38.0	7.9	94.0		38.0
Change Period (Y+Rc), s	4.4	* 6		5.3	4.4	6.0		* 5.3
Max Green Setting (Gmax), s	5.6	* 84		34.7	6.9	82.7		* 35
Max Q Clear Time (g_c+I1), s	4.7	57.2		32.4	4.7	44.2		22.3
Green Ext Time (p_c), s	0.0	24.4		0.3	0.0	30.3		0.3

Intersection Summary		
HCM 6th Ctrl Delay		25.7
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	18	107	3	15	48
Future Vol, veh/h	9	18	107	3	15	48
Conflicting Peds, #/hr	10	10	0	12	12	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	22	129	4	18	58

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	247	153	0	0	145	0
Stage 1	143	-	-	-	-	-
Stage 2	104	-	-	-	-	-
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	741	893	-	-	1437	-
Stage 1	884	-	-	-	-	-
Stage 2	920	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	716	874	-	-	1421	-
Mov Cap-2 Maneuver	716	-	-	-	-	-
Stage 1	874	-	-	-	-	-
Stage 2	900	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	1.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	814	1421	-
HCM Lane V/C Ratio	-	-	0.04	0.013	-
HCM Control Delay (s)	-	-	9.6	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	69	20	50	40	10	46
Future Vol, veh/h	69	20	50	40	10	46
Conflicting Peds, #/hr	10	0	0	10	10	10
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	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	83	24	60	48	12	55

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	118	0	-	0	294	104
Stage 1	-	-	-	-	94	-
Stage 2	-	-	-	-	200	-
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	1470	-	-	-	697	951
Stage 1	-	-	-	-	930	-
Stage 2	-	-	-	-	834	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1456	-	-	-	643	933
Mov Cap-2 Maneuver	-	-	-	-	643	-
Stage 1	-	-	-	-	868	-
Stage 2	-	-	-	-	826	-

Approach	EB	WB	SB
HCM Control Delay, s	5.9	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1456	-	-	-	863
HCM Lane V/C Ratio	0.057	-	-	-	0.078
HCM Control Delay (s)	7.6	0	-	-	9.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

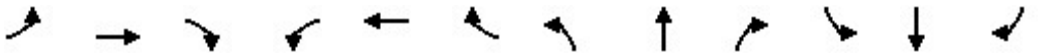
Intersection	
Int Delay, s/veh	4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	49	49	49	78	21
Future Vol, veh/h	17	49	49	49	78	21
Conflicting Peds, #/hr	10	10	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	70	70	70	111	30

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	356	146	151	0	-	0
Stage 1	136	-	-	-	-	-
Stage 2	220	-	-	-	-	-
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	642	901	1430	-	-	-
Stage 1	890	-	-	-	-	-
Stage 2	817	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	597	884	1416	-	-	-
Mov Cap-2 Maneuver	597	-	-	-	-	-
Stage 1	837	-	-	-	-	-
Stage 2	809	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	3.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1416	-	787	-	-
HCM Lane V/C Ratio	0.049	-	0.12	-	-
HCM Control Delay (s)	7.7	0	10.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.4	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	372	21	565	335	19	28	52	862	19	124	17
Future Volume (veh/h)	40	372	21	565	335	19	28	52	862	19	124	17
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		0.97	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	409	23	621	368	21	31	57	947	21	136	19
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	56	676	38	718	1277	73	42	650	866	32	547	76
Arrive On Green	0.03	0.20	0.20	0.21	0.37	0.37	0.02	0.35	0.35	0.02	0.34	0.34
Sat Flow, veh/h	1781	3413	191	3456	3408	194	1781	1870	1543	1781	1599	223
Grp Volume(v), veh/h	44	212	220	621	191	198	31	57	947	21	0	155
Grp Sat Flow(s),veh/h/ln	1781	1777	1827	1728	1777	1825	1781	1870	1543	1781	0	1823
Q Serve(g_s), s	2.3	10.1	10.2	16.2	7.0	7.1	1.6	1.9	32.4	1.1	0.0	5.7
Cycle Q Clear(g_c), s	2.3	10.1	10.2	16.2	7.0	7.1	1.6	1.9	32.4	1.1	0.0	5.7
Prop In Lane	1.00		0.10	1.00		0.11	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	56	352	362	718	666	684	42	650	866	32	0	623
V/C Ratio(X)	0.79	0.60	0.61	0.87	0.29	0.29	0.74	0.09	1.09	0.66	0.00	0.25
Avail Cap(c_a), veh/h	122	533	549	1319	1109	1139	76	650	866	107	0	623
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	44.9	34.0	34.1	35.7	20.4	20.5	45.2	20.5	20.9	45.5	0.0	22.1
Incr Delay (d2), s/veh	8.9	2.6	2.6	1.3	0.4	0.4	8.8	0.3	59.5	8.1	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	4.6	4.7	6.8	2.9	3.0	0.8	0.9	31.2	0.6	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.7	36.7	36.7	36.9	20.8	20.8	54.1	20.7	80.4	53.6	0.0	23.0
LnGrp LOS	D	D	D	D	C	C	D	C	F	D	A	C
Approach Vol, veh/h		476			1010			1035			176	
Approach Delay, s/veh		38.2			30.7			76.3			26.7	
Approach LOS		D			C			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	38.1	23.8	25.3	6.6	37.6	7.3	41.7
Change Period (Y+Rc), s	4.4	5.7	4.4	6.8	4.4	* 5.7	4.4	* 6.8
Max Green Setting (Gmax), s	5.6	29.5	35.6	28.0	4.0	* 32	6.4	* 58
Max Q Clear Time (g_c+I1), s	3.1	34.4	18.2	12.2	3.6	7.7	4.3	9.1
Green Ext Time (p_c), s	0.0	0.0	1.2	3.4	0.0	1.1	0.0	4.1

Intersection Summary	
HCM 6th Ctrl Delay	49.3
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

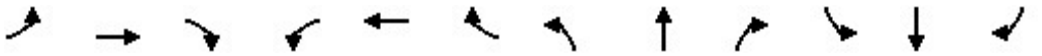
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1026	198	71	630	271	196
Future Volume (veh/h)	1026	198	71	630	271	196
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1080	208	75	663	285	206
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1791	769	97	2151	924	424
Arrive On Green	0.50	0.50	0.05	0.61	0.27	0.27
Sat Flow, veh/h	3647	1526	1781	3647	3456	1585
Grp Volume(v), veh/h	1080	208	75	663	285	206
Grp Sat Flow(s),veh/h/ln	1777	1526	1781	1777	1728	1585
Q Serve(g_s), s	20.2	7.3	3.9	8.5	6.2	10.2
Cycle Q Clear(g_c), s	20.2	7.3	3.9	8.5	6.2	10.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1791	769	97	2151	924	424
V/C Ratio(X)	0.60	0.27	0.78	0.31	0.31	0.49
Avail Cap(c_a), veh/h	1791	769	221	2445	924	424
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	16.5	13.3	43.6	9.0	27.3	28.8
Incr Delay (d2), s/veh	1.5	0.9	4.9	0.2	0.9	3.9
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	2.6	1.8	3.0	2.6	4.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.0	14.2	48.6	9.1	28.2	32.8
LnGrp LOS	B	B	D	A	C	C
Approach Vol, veh/h	1288			738	491	
Approach Delay, s/veh	17.4			13.1	30.1	
Approach LOS	B			B	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	9.5	54.0				63.5	30.0
Change Period (Y+Rc), s	4.4	6.9				* 6.9	5.0
Max Green Setting (Gmax), s	11.6	47.1				* 64	25.0
Max Q Clear Time (g_c+I1), s	5.9	22.2				10.5	12.2
Green Ext Time (p_c), s	0.0	13.5				10.3	1.2

Intersection Summary	
HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	1320	221	259	1700	3	302	28	162	4	25	47
Future Volume (veh/h)	97	1320	221	259	1700	3	302	28	162	4	25	47
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		0.96	1.00		0.96	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	1483	248	291	1910	3	361	0	182	4	28	53
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	2255	684	314	2884	5	588	0	250	12	82	71
Arrive On Green	0.07	0.44	0.44	0.18	0.55	0.55	0.17	0.00	0.17	0.05	0.05	0.05
Sat Flow, veh/h	1781	5106	1548	1781	5264	8	3563	0	1514	232	1626	1402
Grp Volume(v), veh/h	109	1483	248	291	1235	678	361	0	182	32	0	53
Grp Sat Flow(s),veh/h/ln	1781	1702	1548	1781	1702	1869	1781	0	1514	1859	0	1402
Q Serve(g_s), s	7.8	29.3	13.6	20.6	33.0	33.0	12.1	0.0	14.6	2.1	0.0	4.8
Cycle Q Clear(g_c), s	7.8	29.3	13.6	20.6	33.0	33.0	12.1	0.0	14.6	2.1	0.0	4.8
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.12		1.00
Lane Grp Cap(c), veh/h	125	2255	684	314	1865	1024	588	0	250	94	0	71
V/C Ratio(X)	0.87	0.66	0.36	0.93	0.66	0.66	0.61	0.00	0.73	0.34	0.00	0.75
Avail Cap(c_a), veh/h	125	2255	684	315	1865	1024	1030	0	438	118	0	89
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.9	28.1	23.8	51.9	20.5	20.5	49.7	0.0	50.7	58.7	0.0	60.0
Incr Delay (d2), s/veh	42.5	1.5	1.5	31.7	1.9	3.4	0.4	0.0	1.5	0.8	0.0	17.1
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	12.1	5.3	11.9	13.3	15.0	5.4	0.0	5.6	1.0	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.4	29.6	25.2	83.5	22.4	23.9	50.0	0.0	52.2	59.5	0.0	77.0
LnGrp LOS	F	C	C	F	C	C	D	A	D	E	A	E
Approach Vol, veh/h		1840			2204			543			85	
Approach Delay, s/veh		33.3			30.9			50.8			70.4	
Approach LOS		C			C			D			E	

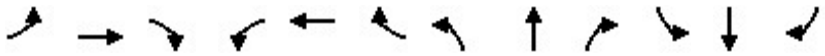
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	27.0	62.5		11.4	13.4	76.1		27.1				
Change Period (Y+Rc), s	4.4	6.0		4.9	4.4	* 6		6.0				
Max Green Setting (Gmax), s	22.6	39.0		8.1	9.0	* 53		37.0				
Max Q Clear Time (g_c+I1), s	22.6	31.3		6.8	9.8	35.0		16.6				
Green Ext Time (p_c), s	0.0	6.4		0.0	0.0	14.6		1.0				

Intersection Summary		
HCM 6th Ctrl Delay		34.9
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



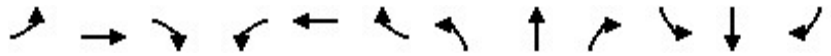
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1235	143	31	1797	22	100	7	38	18	6	4
Future Volume (veh/h)	19	1235	143	31	1797	22	100	7	38	18	6	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.97	1.00		0.84
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	1286	149	32	1872	23	104	7	40	19	6	4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	28	1728	199	41	1964	24	840	57	326	60	33	22
Arrive On Green	0.02	0.54	0.54	0.02	0.55	0.55	0.24	0.24	0.24	0.03	0.03	0.03
Sat Flow, veh/h	1781	3202	369	1781	3593	44	3456	235	1340	1781	968	645
Grp Volume(v), veh/h	20	711	724	32	923	972	104	0	47	19	0	10
Grp Sat Flow(s),veh/h/ln	1781	1777	1794	1781	1777	1861	1728	0	1575	1781	0	1614
Q Serve(g_s), s	1.4	39.3	39.9	2.3	62.8	63.4	3.0	0.0	3.0	1.3	0.0	0.8
Cycle Q Clear(g_c), s	1.4	39.3	39.9	2.3	62.8	63.4	3.0	0.0	3.0	1.3	0.0	0.8
Prop In Lane	1.00		0.21	1.00		0.02	1.00		0.85	1.00		0.40
Lane Grp Cap(c), veh/h	28	959	968	41	971	1017	840	0	383	60	0	54
V/C Ratio(X)	0.71	0.74	0.75	0.79	0.95	0.96	0.12	0.00	0.12	0.32	0.00	0.18
Avail Cap(c_a), veh/h	58	959	968	92	971	1017	840	0	383	60	0	54
HCM Platoon Ratio	1.00	1.00	1.00	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	0.45	0.45	0.45	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	62.7	22.6	22.7	62.2	27.4	27.5	37.8	0.0	37.8	60.4	0.0	60.1
Incr Delay (d2), s/veh	11.3	5.1	5.3	5.6	10.8	11.0	0.3	0.0	0.7	13.4	0.0	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	17.3	17.8	1.1	28.4	30.0	1.3	0.0	1.2	0.8	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.0	27.7	28.0	67.9	38.2	38.5	38.1	0.0	38.5	73.8	0.0	67.5
LnGrp LOS	E	C	C	E	D	D	D	A	D	E	A	E
Approach Vol, veh/h		1455			1927			151			29	
Approach Delay, s/veh		28.5			38.9			38.2			71.6	
Approach LOS		C			D			D			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.3	75.1		9.2	6.4	76.0		36.4
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		5.3
Max Green Setting (Gmax), s	6.6	* 66		4.3	4.2	67.8		31.1
Max Q Clear Time (g_c+I1), s	4.3	41.9		3.3	3.4	65.4		5.0
Green Ext Time (p_c), s	0.0	18.7		0.0	0.0	2.3		0.3

Intersection Summary	
HCM 6th Ctrl Delay	34.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	1141	56	91	1679	241	44	29	47	168	44	66
Future Volume (veh/h)	117	1141	56	91	1679	241	44	29	47	168	44	66
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	126	1227	60	98	1805	259	47	31	51	181	47	71
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	2148	925	121	2123	915	237	127	209	268	134	203
Arrive On Green	0.08	0.60	0.60	0.07	0.60	0.60	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1781	3554	1531	1781	3554	1531	1260	620	1020	1301	656	991
Grp Volume(v), veh/h	126	1227	60	98	1805	259	47	0	82	181	0	118
Grp Sat Flow(s),veh/h/ln	1781	1777	1531	1781	1777	1531	1260	0	1641	1301	0	1647
Q Serve(g_s), s	9.0	26.7	2.1	6.9	53.2	10.5	4.2	0.0	5.4	17.3	0.0	7.9
Cycle Q Clear(g_c), s	9.0	26.7	2.1	6.9	53.2	10.5	12.1	0.0	5.4	22.7	0.0	7.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.62	1.00		0.60
Lane Grp Cap(c), veh/h	134	2148	925	121	2123	915	237	0	336	268	0	337
V/C Ratio(X)	0.94	0.57	0.06	0.81	0.85	0.28	0.20	0.00	0.24	0.67	0.00	0.35
Avail Cap(c_a), veh/h	134	2148	925	177	2123	915	271	0	381	300	0	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.58	0.58	0.58	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.9	15.3	10.4	58.8	21.1	12.5	48.8	0.0	42.6	52.1	0.0	43.6
Incr Delay (d2), s/veh	43.2	0.6	0.1	10.2	4.5	0.8	0.2	0.0	0.1	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	5.7	10.7	0.7	3.5	22.3	3.8	1.4	0.0	2.2	5.9	0.0	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	102.1	15.9	10.5	69.0	25.6	13.3	48.9	0.0	42.7	55.8	0.0	43.8
LnGrp LOS	F	B	B	E	C	B	D	A	D	E	A	D
Approach Vol, veh/h		1413			2162			129			299	
Approach Delay, s/veh		23.4			26.1			45.0			51.1	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.1	83.4		31.5	14.0	82.5		31.5
Change Period (Y+Rc), s	4.4	* 6		5.3	4.4	6.0		* 5.3
Max Green Setting (Gmax), s	12.7	* 71		29.3	9.6	73.4		* 30
Max Q Clear Time (g_c+I1), s	8.9	28.7		24.7	11.0	55.2		14.1
Green Ext Time (p_c), s	0.0	25.2		0.3	0.0	17.1		0.3

Intersection Summary	
HCM 6th Ctrl Delay	27.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	28	77	15	24	119
Future Vol, veh/h	12	28	77	15	24	119
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	34	93	18	29	143

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	323	122	0	0	121	0
Stage 1	112	-	-	-	-	-
Stage 2	211	-	-	-	-	-
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	671	929	-	-	1467	-
Stage 1	913	-	-	-	-	-
Stage 2	824	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	643	911	-	-	1453	-
Mov Cap-2 Maneuver	643	-	-	-	-	-
Stage 1	904	-	-	-	-	-
Stage 2	798	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	1.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	810	1453	-
HCM Lane V/C Ratio	-	-	0.059	0.02	-
HCM Control Delay (s)	-	-	9.7	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	72	50	30	20	50	81
Future Vol, veh/h	72	50	30	20	50	81
Conflicting Peds, #/hr	10	0	0	10	10	10
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	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	87	60	36	24	60	98

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	70	0	-	0	302	68
Stage 1	-	-	-	-	58	-
Stage 2	-	-	-	-	244	-
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	1531	-	-	-	690	995
Stage 1	-	-	-	-	965	-
Stage 2	-	-	-	-	797	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1516	-	-	-	636	976
Mov Cap-2 Maneuver	-	-	-	-	636	-
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	789	-

Approach	EB	WB	SB
HCM Control Delay, s	4.4	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1516	-	-	-	811
HCM Lane V/C Ratio	0.057	-	-	-	0.195
HCM Control Delay (s)	7.5	0	-	-	10.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7

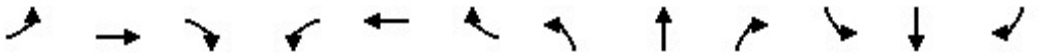
Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	81	85	99	49	49
Future Vol, veh/h	22	81	85	99	49	49
Conflicting Peds, #/hr	10	10	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	92	97	113	56	56

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	411	104	122	0	-	0
Stage 1	94	-	-	-	-	-
Stage 2	317	-	-	-	-	-
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	597	951	1465	-	-	-
Stage 1	930	-	-	-	-	-
Stage 2	738	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	544	933	1451	-	-	-
Mov Cap-2 Maneuver	544	-	-	-	-	-
Stage 1	856	-	-	-	-	-
Stage 2	731	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	3.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1451	-	809	-	-
HCM Lane V/C Ratio	0.067	-	0.145	-	-
HCM Control Delay (s)	7.7	0	10.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.5	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	421	29	699	322	32	44	113	844	31	51	42
Future Volume (veh/h)	70	421	29	699	322	32	44	113	844	31	51	42
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		0.97	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	453	31	752	346	34	47	122	908	33	55	45
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	96	693	47	845	1290	126	60	578	863	43	281	230
Arrive On Green	0.05	0.21	0.21	0.24	0.40	0.40	0.03	0.31	0.31	0.02	0.30	0.30
Sat Flow, veh/h	1781	3366	229	3456	3256	317	1781	1870	1540	1781	938	767
Grp Volume(v), veh/h	75	238	246	752	188	192	47	122	908	33	0	100
Grp Sat Flow(s),veh/h/ln	1781	1777	1819	1728	1777	1797	1781	1870	1540	1781	0	1705
Q Serve(g_s), s	4.1	12.1	12.2	20.7	7.0	7.1	2.6	4.7	30.4	1.8	0.0	4.3
Cycle Q Clear(g_c), s	4.1	12.1	12.2	20.7	7.0	7.1	2.6	4.7	30.4	1.8	0.0	4.3
Prop In Lane	1.00		0.13	1.00		0.18	1.00		1.00	1.00		0.45
Lane Grp Cap(c), veh/h	96	366	375	845	704	712	60	578	863	43	0	511
V/C Ratio(X)	0.78	0.65	0.66	0.89	0.27	0.27	0.78	0.21	1.05	0.77	0.00	0.20
Avail Cap(c_a), veh/h	176	506	518	1215	973	984	83	578	863	103	0	560
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	45.9	35.8	35.9	35.9	20.0	20.1	47.2	25.1	22.2	47.7	0.0	25.6
Incr Delay (d2), s/veh	5.0	3.1	3.1	4.7	0.3	0.3	18.3	0.2	45.2	10.1	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	1.9	5.5	5.7	9.1	2.9	3.0	1.4	2.1	29.0	0.9	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.9	38.9	38.9	40.6	20.4	20.4	65.4	25.3	67.4	57.8	0.0	25.9
LnGrp LOS	D	D	D	D	C	C	E	C	F	E	A	C
Approach Vol, veh/h		559			1132			1077			133	
Approach Delay, s/veh		40.5			33.8			62.5			33.8	
Approach LOS		D			C			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	36.1	28.4	27.1	7.7	35.2	9.7	45.8
Change Period (Y+Rc), s	4.4	5.7	4.4	6.8	4.4	* 5.7	4.4	* 6.8
Max Green Setting (Gmax), s	5.7	30.4	34.6	28.0	4.6	* 32	9.7	* 54
Max Q Clear Time (g_c+I1), s	3.8	32.4	22.7	14.2	4.6	6.3	6.1	9.1
Green Ext Time (p_c), s	0.0	0.0	1.4	3.6	0.0	0.7	0.0	4.0

Intersection Summary	
HCM 6th Ctrl Delay	45.8
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

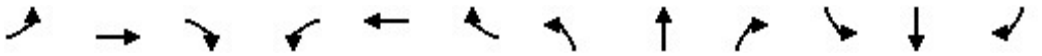
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	995	263	165	862	187	156
Future Volume (veh/h)	995	263	165	862	187	156
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1082	286	179	937	203	170
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1617	693	214	2213	859	394
Arrive On Green	0.46	0.46	0.12	0.62	0.25	0.25
Sat Flow, veh/h	3647	1524	1781	3647	3456	1585
Grp Volume(v), veh/h	1082	286	179	937	203	170
Grp Sat Flow(s),veh/h/ln	1777	1524	1781	1777	1728	1585
Q Serve(g_s), s	22.1	11.7	9.1	12.5	4.3	8.4
Cycle Q Clear(g_c), s	22.1	11.7	9.1	12.5	4.3	8.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1617	693	214	2213	859	394
V/C Ratio(X)	0.67	0.41	0.84	0.42	0.24	0.43
Avail Cap(c_a), veh/h	1617	693	358	2546	859	394
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	19.8	16.9	39.8	8.9	27.8	29.3
Incr Delay (d2), s/veh	2.2	1.8	3.3	0.3	0.6	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	4.3	4.1	4.4	1.8	3.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.0	18.7	43.1	9.2	28.4	32.7
LnGrp LOS	C	B	D	A	C	C
Approach Vol, veh/h	1368			1116	373	
Approach Delay, s/veh	21.3			14.6	30.3	
Approach LOS	C			B	C	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	15.5	49.0			64.5	28.0
Change Period (Y+Rc), s	4.4	6.9			* 6.9	5.0
Max Green Setting (Gmax), s	18.6	42.1			* 66	23.0
Max Q Clear Time (g_c+I1), s	11.1	24.1			14.5	10.4
Green Ext Time (p_c), s	0.1	11.4			16.5	0.9

Intersection Summary	
HCM 6th Ctrl Delay	19.9
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	1644	196	167	1610	7	429	23	59	9	15	55
Future Volume (veh/h)	32	1644	196	167	1610	7	429	23	59	9	15	55
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		0.97	1.00		0.95	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	1827	218	186	1789	8	496	0	66	10	17	61
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	2530	768	209	3079	14	639	0	271	38	64	78
Arrive On Green	0.03	0.50	0.50	0.12	0.59	0.59	0.18	0.00	0.18	0.06	0.06	0.06
Sat Flow, veh/h	1781	5106	1550	1781	5246	23	3563	0	1513	680	1156	1401
Grp Volume(v), veh/h	36	1827	218	186	1161	636	496	0	66	27	0	61
Grp Sat Flow(s),veh/h/ln	1781	1702	1550	1781	1702	1865	1781	0	1513	1836	0	1401
Q Serve(g_s), s	2.8	39.4	11.6	14.4	29.9	29.9	18.6	0.0	5.2	2.0	0.0	6.0
Cycle Q Clear(g_c), s	2.8	39.4	11.6	14.4	29.9	29.9	18.6	0.0	5.2	2.0	0.0	6.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.37		1.00
Lane Grp Cap(c), veh/h	46	2530	768	209	1998	1095	639	0	271	102	0	78
V/C Ratio(X)	0.78	0.72	0.28	0.89	0.58	0.58	0.78	0.00	0.24	0.26	0.00	0.78
Avail Cap(c_a), veh/h	88	2530	768	234	1998	1095	942	0	400	132	0	101
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.8	27.8	20.7	60.9	18.1	18.1	54.8	0.0	49.3	63.4	0.0	65.3
Incr Delay (d2), s/veh	10.1	1.8	0.9	27.6	1.2	2.3	1.2	0.0	0.2	0.5	0.0	18.9
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	1.4	16.3	4.4	8.1	12.0	13.4	8.5	0.0	2.0	0.9	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.8	29.6	21.7	88.4	19.4	20.4	56.0	0.0	49.5	63.9	0.0	84.2
LnGrp LOS	E	C	C	F	B	C	E	A	D	E	A	F
Approach Vol, veh/h		2081			1983			562			88	
Approach Delay, s/veh		29.6			26.2			55.2			77.9	
Approach LOS		C			C			E			E	

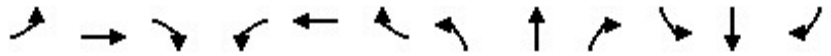
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.8	75.4		12.7	8.0	88.2		31.1				
Change Period (Y+Rc), s	4.4	6.0		4.9	4.4	* 6		6.0				
Max Green Setting (Gmax), s	18.4	53.2		10.1	6.9	* 65		37.0				
Max Q Clear Time (g_c+I1), s	16.4	41.4		8.0	4.8	31.9		20.6				
Green Ext Time (p_c), s	0.1	10.3		0.0	0.0	22.4		1.0				

Intersection Summary		
HCM 6th Ctrl Delay		32.1
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



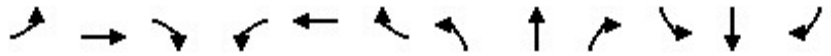
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1602	88	3	1546	3	123	7	23	13	11	3
Future Volume (veh/h)	0	1602	88	3	1546	3	123	7	23	13	11	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.96	1.00		0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1780	98	3	1718	3	137	8	26	14	12	3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1	2049	112	6	2306	4	765	83	270	52	40	10
Arrive On Green	0.00	0.60	0.60	0.00	0.63	0.63	0.22	0.22	0.22	0.03	0.03	0.03
Sat Flow, veh/h	1781	3421	187	1781	3639	6	3456	375	1218	1781	1366	341
Grp Volume(v), veh/h	0	916	962	3	839	882	137	0	34	14	0	15
Grp Sat Flow(s),veh/h/ln	1781	1777	1831	1781	1777	1869	1728	0	1593	1781	0	1707
Q Serve(g_s), s	0.0	59.8	62.1	0.2	45.8	45.9	4.5	0.0	2.4	1.1	0.0	1.2
Cycle Q Clear(g_c), s	0.0	59.8	62.1	0.2	45.8	45.9	4.5	0.0	2.4	1.1	0.0	1.2
Prop In Lane	1.00		0.10	1.00		0.00	1.00		0.76	1.00		0.20
Lane Grp Cap(c), veh/h	1	1064	1097	6	1126	1184	765	0	353	52	0	50
V/C Ratio(X)	0.00	0.86	0.88	0.54	0.74	0.75	0.18	0.00	0.10	0.27	0.00	0.30
Avail Cap(c_a), veh/h	51	1064	1097	51	1126	1184	765	0	353	52	0	50
HCM Platoon Ratio	1.00	1.00	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	1.00	0.66	0.66	0.66	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	23.2	23.7	69.7	17.8	17.8	44.2	0.0	43.4	66.5	0.0	66.5
Incr Delay (d2), s/veh	0.0	9.1	9.9	18.0	3.0	2.9	0.5	0.0	0.5	12.2	0.0	14.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	26.8	28.8	0.1	19.0	20.0	2.0	0.0	1.0	0.7	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	32.4	33.6	87.7	20.8	20.7	44.7	0.0	43.9	78.7	0.0	81.3
LnGrp LOS	A	C	C	F	C	C	D	A	D	E	A	F
Approach Vol, veh/h		1878			1724			171			29	
Approach Delay, s/veh		33.0			20.9			44.5			80.0	
Approach LOS		C			C			D			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.8	89.9		9.0	0.0	94.7		36.3
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		5.3
Max Green Setting (Gmax), s	4.6	* 81		4.1	4.0	80.3		31.0
Max Q Clear Time (g_c+I1), s	2.2	64.1		3.2	0.0	47.9		6.5
Green Ext Time (p_c), s	0.0	15.6		0.0	0.0	27.4		0.4

Intersection Summary	
HCM 6th Ctrl Delay	28.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1575	30	34	1369	63	46	64	41	196	31	134
Future Volume (veh/h)	30	1575	30	34	1369	63	46	64	41	196	31	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.97	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	1831	35	40	1592	73	53	74	48	228	36	156
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	45	2172	936	51	2185	941	222	259	168	291	74	320
Arrive On Green	0.03	0.61	0.61	0.03	0.61	0.61	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1781	3554	1531	1781	3554	1531	1184	1044	677	1259	298	1289
Grp Volume(v), veh/h	35	1831	35	40	1592	73	53	0	122	228	0	192
Grp Sat Flow(s),veh/h/ln	1781	1777	1531	1781	1777	1531	1184	0	1721	1259	0	1587
Q Serve(g_s), s	2.7	57.9	1.3	3.1	43.8	2.7	5.6	0.0	8.0	25.1	0.0	14.5
Cycle Q Clear(g_c), s	2.7	57.9	1.3	3.1	43.8	2.7	20.1	0.0	8.0	33.1	0.0	14.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		0.81
Lane Grp Cap(c), veh/h	45	2172	936	51	2185	941	222	0	427	291	0	393
V/C Ratio(X)	0.78	0.84	0.04	0.78	0.73	0.08	0.24	0.00	0.29	0.78	0.00	0.49
Avail Cap(c_a), veh/h	88	2172	936	71	2185	941	226	0	432	291	0	393
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.40	0.40	0.40	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.9	21.8	10.8	67.5	18.8	10.9	53.7	0.0	42.6	56.0	0.0	45.1
Incr Delay (d2), s/veh	4.4	1.7	0.0	19.7	2.2	0.2	0.2	0.0	0.1	11.9	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	23.6	0.4	1.7	18.1	1.0	1.7	0.0	3.5	8.9	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.2	23.6	10.9	87.3	21.0	11.1	53.9	0.0	42.8	68.0	0.0	45.4
LnGrp LOS	E	C	B	F	C	B	D	A	D	E	A	D
Approach Vol, veh/h		1901			1705			175			420	
Approach Delay, s/veh		24.2			22.1			46.1			57.6	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.4	91.6		40.0	7.9	92.1		40.0
Change Period (Y+Rc), s	4.4	* 6		5.3	4.4	6.0		* 5.3
Max Green Setting (Gmax), s	5.6	* 84		34.7	6.9	82.7		* 35
Max Q Clear Time (g_c+I1), s	5.1	59.9		35.1	4.7	45.8		22.1
Green Ext Time (p_c), s	0.0	22.2		0.0	0.0	29.3		0.4

Intersection Summary	
HCM 6th Ctrl Delay	27.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	20	130	3	16	54
Future Vol, veh/h	9	20	130	3	16	54
Conflicting Peds, #/hr	10	10	0	12	12	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	24	157	4	19	65

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	284	181	0	0	173	0
Stage 1	171	-	-	-	-	-
Stage 2	113	-	-	-	-	-
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	706	862	-	-	1404	-
Stage 1	859	-	-	-	-	-
Stage 2	912	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	681	844	-	-	1388	-
Mov Cap-2 Maneuver	681	-	-	-	-	-
Stage 1	850	-	-	-	-	-
Stage 2	891	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	1.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	786	1388	-
HCM Lane V/C Ratio	-	-	0.044	0.014	-
HCM Control Delay (s)	-	-	9.8	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	69	26	74	63	16	46
Future Vol, veh/h	69	26	74	63	16	46
Conflicting Peds, #/hr	10	0	0	10	10	10
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	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	83	31	89	76	19	55

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	175	0	-	0	344	147
Stage 1	-	-	-	-	137	-
Stage 2	-	-	-	-	207	-
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	1401	-	-	-	652	900
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	828	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1388	-	-	-	600	883
Mov Cap-2 Maneuver	-	-	-	-	600	-
Stage 1	-	-	-	-	828	-
Stage 2	-	-	-	-	820	-

Approach	EB	WB	SB
HCM Control Delay, s	5.6	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1388	-	-	-	787
HCM Lane V/C Ratio	0.06	-	-	-	0.095
HCM Control Delay (s)	7.8	0	-	-	10.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

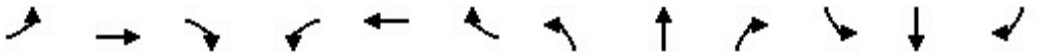
Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	69	54	49	79	21
Future Vol, veh/h	17	69	54	49	79	21
Conflicting Peds, #/hr	10	10	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	99	77	70	113	30

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	372	148	153	0	-	0
Stage 1	138	-	-	-	-	-
Stage 2	234	-	-	-	-	-
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	629	899	1428	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	805	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	581	882	1414	-	-	-
Mov Cap-2 Maneuver	581	-	-	-	-	-
Stage 1	830	-	-	-	-	-
Stage 2	797	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1414	-	800	-	-
HCM Lane V/C Ratio	0.055	-	0.154	-	-
HCM Control Delay (s)	7.7	0	10.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.5	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	372	21	565	335	20	28	56	862	23	140	18
Future Volume (veh/h)	40	372	21	565	335	20	28	56	862	23	140	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	409	23	621	368	22	31	62	947	25	154	20
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	56	676	38	718	1273	76	42	646	862	36	553	72
Arrive On Green	0.03	0.20	0.20	0.21	0.37	0.37	0.02	0.35	0.35	0.02	0.34	0.34
Sat Flow, veh/h	1781	3413	191	3456	3398	202	1781	1870	1542	1781	1616	210
Grp Volume(v), veh/h	44	212	220	621	192	198	31	62	947	25	0	174
Grp Sat Flow(s),veh/h/ln	1781	1777	1827	1728	1777	1823	1781	1870	1542	1781	0	1826
Q Serve(g_s), s	2.3	10.1	10.2	16.2	7.0	7.1	1.6	2.1	32.2	1.3	0.0	6.5
Cycle Q Clear(g_c), s	2.3	10.1	10.2	16.2	7.0	7.1	1.6	2.1	32.2	1.3	0.0	6.5
Prop In Lane	1.00		0.10	1.00		0.11	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	56	352	362	718	666	683	42	646	862	36	0	624
V/C Ratio(X)	0.79	0.60	0.61	0.87	0.29	0.29	0.74	0.10	1.10	0.69	0.00	0.28
Avail Cap(c_a), veh/h	122	533	549	1319	1109	1138	76	646	862	107	0	624
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	44.9	34.0	34.1	35.7	20.4	20.5	45.2	20.7	21.0	45.4	0.0	22.3
Incr Delay (d2), s/veh	8.9	2.6	2.6	1.3	0.4	0.4	8.8	0.3	61.3	8.2	0.0	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	1.1	4.6	4.7	6.8	2.9	3.0	0.8	1.0	31.5	0.7	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.7	36.7	36.7	36.9	20.8	20.8	54.1	21.0	82.3	53.6	0.0	23.4
LnGrp LOS	D	D	D	D	C	C	D	C	F	D	A	C
Approach Vol, veh/h		476			1011			1040			199	
Approach Delay, s/veh		38.2			30.7			77.8			27.2	
Approach LOS		D			C			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	37.9	23.8	25.3	6.6	37.6	7.3	41.7
Change Period (Y+Rc), s	4.4	5.7	4.4	6.8	4.4	* 5.7	4.4	* 6.8
Max Green Setting (Gmax), s	5.6	29.5	35.6	28.0	4.0	* 32	6.4	* 58
Max Q Clear Time (g_c+I1), s	3.3	34.2	18.2	12.2	3.6	8.5	4.3	9.1
Green Ext Time (p_c), s	0.0	0.0	1.2	3.4	0.0	1.2	0.0	4.2

Intersection Summary	
HCM 6th Ctrl Delay	49.8
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



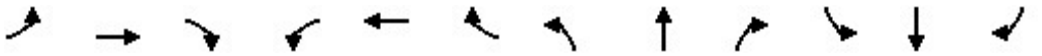
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1029	199	71	631	271	196
Future Volume (veh/h)	1029	199	71	631	271	196
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1083	209	75	664	285	206
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1791	769	97	2151	924	424
Arrive On Green	0.50	0.50	0.05	0.61	0.27	0.27
Sat Flow, veh/h	3647	1526	1781	3647	3456	1585
Grp Volume(v), veh/h	1083	209	75	664	285	206
Grp Sat Flow(s),veh/h/ln	1777	1526	1781	1777	1728	1585
Q Serve(g_s), s	20.3	7.4	3.9	8.5	6.2	10.2
Cycle Q Clear(g_c), s	20.3	7.4	3.9	8.5	6.2	10.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1791	769	97	2151	924	424
V/C Ratio(X)	0.60	0.27	0.78	0.31	0.31	0.49
Avail Cap(c_a), veh/h	1791	769	221	2445	924	424
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	16.5	13.3	43.6	9.0	27.3	28.8
Incr Delay (d2), s/veh	1.5	0.9	4.9	0.2	0.9	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	2.6	1.8	3.0	2.6	4.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.1	14.2	48.6	9.1	28.2	32.8
LnGrp LOS	B	B	D	A	C	C
Approach Vol, veh/h	1292			739	491	
Approach Delay, s/veh	17.4			13.1	30.1	
Approach LOS	B			B	C	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.5	54.0			63.5	30.0
Change Period (Y+Rc), s	4.4	6.9			* 6.9	5.0
Max Green Setting (Gmax), s	11.6	47.1			* 64	25.0
Max Q Clear Time (g_c+I1), s	5.9	22.3			10.5	12.2
Green Ext Time (p_c), s	0.0	13.5			10.3	1.2

Intersection Summary	
HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	1328	221	259	1704	3	302	28	162	4	25	47
Future Volume (veh/h)	97	1328	221	259	1704	3	302	28	162	4	25	47
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		0.96	1.00		0.96	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	1492	248	291	1915	3	361	0	182	4	28	53
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	2255	684	314	2884	5	588	0	250	12	82	71
Arrive On Green	0.07	0.44	0.44	0.18	0.55	0.55	0.17	0.00	0.17	0.05	0.05	0.05
Sat Flow, veh/h	1781	5106	1548	1781	5264	8	3563	0	1514	232	1626	1402
Grp Volume(v), veh/h	109	1492	248	291	1238	680	361	0	182	32	0	53
Grp Sat Flow(s),veh/h/ln	1781	1702	1548	1781	1702	1869	1781	0	1514	1859	0	1402
Q Serve(g_s), s	7.8	29.5	13.6	20.6	33.1	33.1	12.1	0.0	14.6	2.1	0.0	4.8
Cycle Q Clear(g_c), s	7.8	29.5	13.6	20.6	33.1	33.1	12.1	0.0	14.6	2.1	0.0	4.8
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.12		1.00
Lane Grp Cap(c), veh/h	125	2255	684	314	1865	1024	588	0	250	94	0	71
V/C Ratio(X)	0.87	0.66	0.36	0.93	0.66	0.66	0.61	0.00	0.73	0.34	0.00	0.75
Avail Cap(c_a), veh/h	125	2255	684	315	1865	1024	1030	0	438	118	0	89
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.9	28.2	23.8	51.9	20.6	20.6	49.7	0.0	50.7	58.7	0.0	60.0
Incr Delay (d2), s/veh	42.5	1.5	1.5	31.7	1.9	3.4	0.4	0.0	1.5	0.8	0.0	17.1
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	12.2	5.3	11.9	13.3	15.1	5.4	0.0	5.6	1.0	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.4	29.7	25.2	83.5	22.5	24.0	50.0	0.0	52.2	59.5	0.0	77.0
LnGrp LOS	F	C	C	F	C	C	D	A	D	E	A	E
Approach Vol, veh/h		1849			2209			543			85	
Approach Delay, s/veh		33.4			31.0			50.8			70.4	
Approach LOS		C			C			D			E	

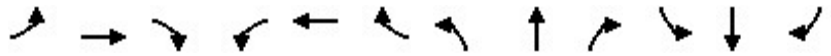
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	27.0	62.5		11.4	13.4	76.1		27.1				
Change Period (Y+Rc), s	4.4	6.0		4.9	4.4	* 6		6.0				
Max Green Setting (Gmax), s	22.6	39.0		8.1	9.0	* 53		37.0				
Max Q Clear Time (g_c+I1), s	22.6	31.5		6.8	9.8	35.1		16.6				
Green Ext Time (p_c), s	0.0	6.3		0.0	0.0	14.6		1.0				

Intersection Summary		
HCM 6th Ctrl Delay		34.9
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



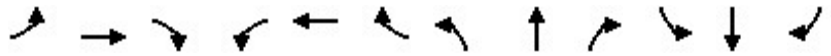
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1235	152	31	1797	22	104	7	38	18	6	4
Future Volume (veh/h)	19	1235	152	31	1797	22	104	7	38	18	6	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.97	1.00		0.84
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	1286	158	32	1872	23	108	7	40	19	6	4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	28	1716	210	41	1964	24	840	57	326	60	33	22
Arrive On Green	0.02	0.54	0.54	0.02	0.55	0.55	0.24	0.24	0.24	0.03	0.03	0.03
Sat Flow, veh/h	1781	3179	388	1781	3593	44	3456	235	1340	1781	968	645
Grp Volume(v), veh/h	20	716	728	32	923	972	108	0	47	19	0	10
Grp Sat Flow(s),veh/h/ln	1781	1777	1790	1781	1777	1861	1728	0	1575	1781	0	1614
Q Serve(g_s), s	1.4	39.7	40.4	2.3	62.8	63.4	3.1	0.0	3.0	1.3	0.0	0.8
Cycle Q Clear(g_c), s	1.4	39.7	40.4	2.3	62.8	63.4	3.1	0.0	3.0	1.3	0.0	0.8
Prop In Lane	1.00		0.22	1.00		0.02	1.00		0.85	1.00		0.40
Lane Grp Cap(c), veh/h	28	959	966	41	971	1017	840	0	383	60	0	54
V/C Ratio(X)	0.71	0.75	0.75	0.79	0.95	0.96	0.13	0.00	0.12	0.32	0.00	0.18
Avail Cap(c_a), veh/h	58	959	966	92	971	1017	840	0	383	60	0	54
HCM Platoon Ratio	1.00	1.00	1.00	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	0.45	0.45	0.45	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	62.7	22.7	22.9	62.2	27.4	27.5	37.9	0.0	37.8	60.4	0.0	60.1
Incr Delay (d2), s/veh	11.3	5.3	5.4	5.6	10.8	11.0	0.3	0.0	0.7	13.4	0.0	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	17.6	18.0	1.1	28.4	30.0	1.4	0.0	1.2	0.8	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.0	28.0	28.3	67.9	38.2	38.5	38.2	0.0	38.5	73.8	0.0	67.5
LnGrp LOS	E	C	C	E	D	D	D	A	D	E	A	E
Approach Vol, veh/h		1464			1927			155			29	
Approach Delay, s/veh		28.8			38.9			38.3			71.6	
Approach LOS		C			D			D			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.3	75.1		9.2	6.4	76.0		36.4
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		5.3
Max Green Setting (Gmax), s	6.6	* 66		4.3	4.2	67.8		31.1
Max Q Clear Time (g_c+I1), s	4.3	42.4		3.3	3.4	65.4		5.1
Green Ext Time (p_c), s	0.0	18.5		0.0	0.0	2.3		0.4

Intersection Summary	
HCM 6th Ctrl Delay	35.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	1141	56	105	1679	241	44	35	53	168	57	66
Future Volume (veh/h)	117	1141	56	105	1679	241	44	35	53	168	57	66
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	126	1227	60	113	1805	259	47	38	57	181	61	71
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	2096	903	137	2103	906	234	139	208	265	162	189
Arrive On Green	0.08	0.59	0.59	0.08	0.59	0.59	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1781	3554	1530	1781	3554	1530	1245	659	989	1286	771	898
Grp Volume(v), veh/h	126	1227	60	113	1805	259	47	0	95	181	0	132
Grp Sat Flow(s),veh/h/ln	1781	1777	1530	1781	1777	1530	1245	0	1648	1286	0	1669
Q Serve(g_s), s	9.0	27.7	2.1	8.0	53.9	10.6	4.3	0.0	6.2	17.6	0.0	8.7
Cycle Q Clear(g_c), s	9.0	27.7	2.1	8.0	53.9	10.6	13.0	0.0	6.2	23.7	0.0	8.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.60	1.00		0.54
Lane Grp Cap(c), veh/h	134	2096	903	137	2103	906	234	0	347	265	0	351
V/C Ratio(X)	0.94	0.59	0.07	0.82	0.86	0.29	0.20	0.00	0.27	0.68	0.00	0.38
Avail Cap(c_a), veh/h	134	2096	903	177	2103	906	261	0	382	289	0	382
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.58	0.58	0.58	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.9	16.4	11.2	58.2	21.7	12.8	48.9	0.0	42.3	52.3	0.0	43.3
Incr Delay (d2), s/veh	43.2	0.7	0.1	17.0	4.8	0.8	0.2	0.0	0.2	4.5	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	5.7	11.2	0.8	4.3	22.7	3.8	1.4	0.0	2.6	6.0	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	102.1	17.1	11.3	75.2	26.5	13.6	49.0	0.0	42.5	56.7	0.0	43.6
LnGrp LOS	F	B	B	E	C	B	D	A	D	E	A	D
Approach Vol, veh/h		1413			2177			142			313	
Approach Delay, s/veh		24.5			27.5			44.7			51.2	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.3	81.5		32.2	14.0	81.8		32.2
Change Period (Y+Rc), s	4.4	* 6		5.3	4.4	6.0		* 5.3
Max Green Setting (Gmax), s	12.7	* 71		29.3	9.6	73.4		* 30
Max Q Clear Time (g_c+I1), s	10.0	29.7		25.7	11.0	55.9		15.0
Green Ext Time (p_c), s	0.0	24.8		0.3	0.0	16.4		0.3

Intersection Summary	
HCM 6th Ctrl Delay	28.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	29	88	15	26	144
Future Vol, veh/h	12	29	88	15	26	144
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	35	106	18	31	173

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	370	135	0	0	134	0
Stage 1	125	-	-	-	-	-
Stage 2	245	-	-	-	-	-
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	630	914	-	-	1451	-
Stage 1	901	-	-	-	-	-
Stage 2	796	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	603	897	-	-	1437	-
Mov Cap-2 Maneuver	603	-	-	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	770	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	1.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	785	1437	-
HCM Lane V/C Ratio	-	-	0.063	0.022	-
HCM Control Delay (s)	-	-	9.9	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	72	76	41	31	75	81
Future Vol, veh/h	72	76	41	31	75	81
Conflicting Peds, #/hr	10	0	0	10	10	10
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	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	87	92	49	37	90	98

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	96	0	-	0	354	88
Stage 1	-	-	-	-	78	-
Stage 2	-	-	-	-	276	-
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	1498	-	-	-	644	970
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	771	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1484	-	-	-	592	952
Mov Cap-2 Maneuver	-	-	-	-	592	-
Stage 1	-	-	-	-	878	-
Stage 2	-	-	-	-	763	-

Approach	EB	WB	SB
HCM Control Delay, s	3.7	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1484	-	-	-	737
HCM Lane V/C Ratio	0.058	-	-	-	0.255
HCM Control Delay (s)	7.6	0	-	-	11.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1

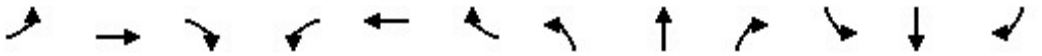
Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	90	107	101	51	49
Future Vol, veh/h	22	90	107	101	51	49
Conflicting Peds, #/hr	10	10	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	102	122	115	58	56

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	465	106	124	0	-	0
Stage 1	96	-	-	-	-	-
Stage 2	369	-	-	-	-	-
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	556	948	1463	-	-	-
Stage 1	928	-	-	-	-	-
Stage 2	699	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	496	930	1449	-	-	-
Mov Cap-2 Maneuver	496	-	-	-	-	-
Stage 1	836	-	-	-	-	-
Stage 2	692	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1449	-	794	-	-
HCM Lane V/C Ratio	0.084	-	0.16	-	-
HCM Control Delay (s)	7.7	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.6	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	421	29	699	322	36	44	131	844	33	59	43
Future Volume (veh/h)	72	421	29	699	322	36	44	131	844	33	59	43
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		0.97	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	453	31	752	346	39	47	141	908	35	63	46
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	99	693	47	844	1265	141	60	577	862	45	297	217
Arrive On Green	0.06	0.21	0.21	0.24	0.39	0.39	0.03	0.31	0.31	0.03	0.30	0.30
Sat Flow, veh/h	1781	3366	229	3456	3206	358	1781	1870	1540	1781	991	724
Grp Volume(v), veh/h	77	238	246	752	190	195	47	141	908	35	0	109
Grp Sat Flow(s),veh/h/ln	1781	1777	1819	1728	1777	1788	1781	1870	1540	1781	0	1715
Q Serve(g_s), s	4.2	12.1	12.2	20.7	7.2	7.3	2.6	5.6	30.4	1.9	0.0	4.7
Cycle Q Clear(g_c), s	4.2	12.1	12.2	20.7	7.2	7.3	2.6	5.6	30.4	1.9	0.0	4.7
Prop In Lane	1.00		0.13	1.00		0.20	1.00		1.00	1.00		0.42
Lane Grp Cap(c), veh/h	99	366	374	844	701	706	60	577	862	45	0	514
V/C Ratio(X)	0.78	0.65	0.66	0.89	0.27	0.28	0.78	0.24	1.05	0.79	0.00	0.21
Avail Cap(c_a), veh/h	175	505	517	1214	972	978	83	577	862	103	0	562
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	45.9	35.9	35.9	36.0	20.2	20.3	47.2	25.5	22.2	47.8	0.0	25.8
Incr Delay (d2), s/veh	4.9	3.1	3.1	4.8	0.3	0.3	18.4	0.2	45.5	10.7	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	5.5	5.7	9.1	3.0	3.1	1.4	2.5	29.0	1.0	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.8	39.0	39.0	40.7	20.5	20.6	65.6	25.7	67.7	58.4	0.0	26.0
LnGrp LOS	D	D	D	D	C	C	E	C	F	E	A	C
Approach Vol, veh/h		561			1137			1096			144	
Approach Delay, s/veh		40.6			33.9			62.2			33.9	
Approach LOS		D			C			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	36.1	28.5	27.1	7.7	35.3	9.9	45.7
Change Period (Y+Rc), s	4.4	5.7	4.4	6.8	4.4	* 5.7	4.4	* 6.8
Max Green Setting (Gmax), s	5.7	30.4	34.6	28.0	4.6	* 32	9.7	* 54
Max Q Clear Time (g_c+I1), s	3.9	32.4	22.7	14.2	4.6	6.7	6.2	9.3
Green Ext Time (p_c), s	0.0	0.0	1.4	3.6	0.0	0.7	0.0	4.1

Intersection Summary	
HCM 6th Ctrl Delay	45.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



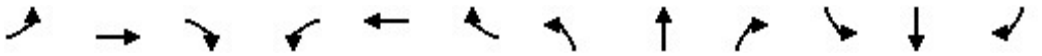
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	996	264	165	865	188	156
Future Volume (veh/h)	996	264	165	865	188	156
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1083	287	179	940	204	170
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1617	693	214	2213	859	394
Arrive On Green	0.46	0.46	0.12	0.62	0.25	0.25
Sat Flow, veh/h	3647	1524	1781	3647	3456	1585
Grp Volume(v), veh/h	1083	287	179	940	204	170
Grp Sat Flow(s),veh/h/ln	1777	1524	1781	1777	1728	1585
Q Serve(g_s), s	22.1	11.7	9.1	12.6	4.4	8.4
Cycle Q Clear(g_c), s	22.1	11.7	9.1	12.6	4.4	8.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1617	693	214	2213	859	394
V/C Ratio(X)	0.67	0.41	0.84	0.42	0.24	0.43
Avail Cap(c_a), veh/h	1617	693	358	2546	859	394
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	19.8	16.9	39.8	8.9	27.8	29.3
Incr Delay (d2), s/veh	2.2	1.8	3.3	0.3	0.7	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	4.3	4.1	4.4	1.9	3.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.0	18.8	43.1	9.2	28.4	32.7
LnGrp LOS	C	B	D	A	C	C
Approach Vol, veh/h	1370			1119	374	
Approach Delay, s/veh	21.3			14.6	30.4	
Approach LOS	C			B	C	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	15.5	49.0			64.5	28.0
Change Period (Y+Rc), s	4.4	6.9			* 6.9	5.0
Max Green Setting (Gmax), s	18.6	42.1			* 66	23.0
Max Q Clear Time (g_c+I1), s	11.1	24.1			14.6	10.4
Green Ext Time (p_c), s	0.1	11.4			16.5	0.9

Intersection Summary	
HCM 6th Ctrl Delay	19.9
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	1642	196	167	1602	7	429	23	59	9	15	55
Future Volume (veh/h)	32	1642	196	167	1602	7	429	23	59	9	15	55
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		0.97	1.00		0.95	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	1824	218	186	1780	8	496	0	66	10	17	61
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	2530	768	209	3079	14	639	0	271	38	64	78
Arrive On Green	0.03	0.50	0.50	0.12	0.59	0.59	0.18	0.00	0.18	0.06	0.06	0.06
Sat Flow, veh/h	1781	5106	1550	1781	5246	24	3563	0	1513	680	1156	1401
Grp Volume(v), veh/h	36	1824	218	186	1155	633	496	0	66	27	0	61
Grp Sat Flow(s),veh/h/ln	1781	1702	1550	1781	1702	1865	1781	0	1513	1836	0	1401
Q Serve(g_s), s	2.8	39.3	11.6	14.4	29.7	29.7	18.6	0.0	5.2	2.0	0.0	6.0
Cycle Q Clear(g_c), s	2.8	39.3	11.6	14.4	29.7	29.7	18.6	0.0	5.2	2.0	0.0	6.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.37		1.00
Lane Grp Cap(c), veh/h	46	2530	768	209	1998	1095	639	0	271	102	0	78
V/C Ratio(X)	0.78	0.72	0.28	0.89	0.58	0.58	0.78	0.00	0.24	0.26	0.00	0.78
Avail Cap(c_a), veh/h	88	2530	768	234	1998	1095	942	0	400	132	0	101
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.8	27.7	20.7	60.9	18.1	18.1	54.8	0.0	49.3	63.4	0.0	65.3
Incr Delay (d2), s/veh	10.1	1.8	0.9	27.6	1.2	2.2	1.2	0.0	0.2	0.5	0.0	18.9
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	1.4	16.3	4.4	8.1	11.9	13.3	8.5	0.0	2.0	0.9	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.8	29.5	21.7	88.4	19.3	20.3	56.0	0.0	49.5	63.9	0.0	84.2
LnGrp LOS	E	C	C	F	B	C	E	A	D	E	A	F
Approach Vol, veh/h		2078			1974			562			88	
Approach Delay, s/veh		29.6			26.1			55.2			77.9	
Approach LOS		C			C			E			E	

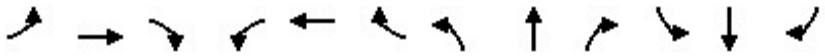
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.8	75.4		12.7	8.0	88.2		31.1				
Change Period (Y+Rc), s	4.4	6.0		4.9	4.4	* 6		6.0				
Max Green Setting (Gmax), s	18.4	53.2		10.1	6.9	* 65		37.0				
Max Q Clear Time (g_c+I1), s	16.4	41.3		8.0	4.8	31.7		20.6				
Green Ext Time (p_c), s	0.1	10.4		0.0	0.0	22.4		1.0				

Intersection Summary		
HCM 6th Ctrl Delay	32.1	
HCM 6th LOS	C	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



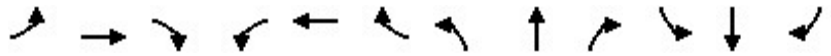
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1602	86	3	1546	3	125	7	23	13	11	3
Future Volume (veh/h)	0	1602	86	3	1546	3	125	7	23	13	11	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.96	1.00		0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1780	96	3	1718	3	139	8	26	14	12	3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1	2052	110	6	2306	4	765	83	270	52	40	10
Arrive On Green	0.00	0.60	0.60	0.00	0.63	0.63	0.22	0.22	0.22	0.03	0.03	0.03
Sat Flow, veh/h	1781	3426	183	1781	3639	6	3456	375	1218	1781	1366	341
Grp Volume(v), veh/h	0	915	961	3	839	882	139	0	34	14	0	15
Grp Sat Flow(s),veh/h/ln	1781	1777	1832	1781	1777	1869	1728	0	1593	1781	0	1707
Q Serve(g_s), s	0.0	59.6	61.9	0.2	45.8	45.9	4.6	0.0	2.4	1.1	0.0	1.2
Cycle Q Clear(g_c), s	0.0	59.6	61.9	0.2	45.8	45.9	4.6	0.0	2.4	1.1	0.0	1.2
Prop In Lane	1.00		0.10	1.00		0.00	1.00		0.76	1.00		0.20
Lane Grp Cap(c), veh/h	1	1064	1097	6	1126	1184	765	0	353	52	0	50
V/C Ratio(X)	0.00	0.86	0.88	0.54	0.74	0.75	0.18	0.00	0.10	0.27	0.00	0.30
Avail Cap(c_a), veh/h	51	1064	1097	51	1126	1184	765	0	353	52	0	50
HCM Platoon Ratio	1.00	1.00	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	1.00	0.68	0.68	0.68	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	23.2	23.7	69.7	17.8	17.8	44.2	0.0	43.4	66.5	0.0	66.5
Incr Delay (d2), s/veh	0.0	9.1	9.8	18.5	3.1	2.9	0.5	0.0	0.5	12.2	0.0	14.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	26.7	28.7	0.1	19.0	20.0	2.0	0.0	1.0	0.7	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	32.3	33.5	88.2	20.9	20.8	44.7	0.0	43.9	78.7	0.0	81.3
LnGrp LOS	A	C	C	F	C	C	D	A	D	E	A	F
Approach Vol, veh/h		1876			1724			173			29	
Approach Delay, s/veh		32.9			20.9			44.6			80.0	
Approach LOS		C			C			D			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.8	89.9		9.0	0.0	94.7		36.3
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		5.3
Max Green Setting (Gmax), s	4.8	* 81		4.1	4.0	80.3		31.0
Max Q Clear Time (g_c+I1), s	2.2	63.9		3.2	0.0	47.9		6.6
Green Ext Time (p_c), s	0.0	15.7		0.0	0.0	27.4		0.4

Intersection Summary	
HCM 6th Ctrl Delay	28.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1575	30	30	1369	63	46	42	28	196	28	134
Future Volume (veh/h)	30	1575	30	30	1369	63	46	42	28	196	28	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.97	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	1831	35	35	1592	73	53	49	33	228	33	156
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	45	2255	972	45	2255	972	198	234	158	298	63	298
Arrive On Green	0.03	0.63	0.63	0.03	0.63	0.63	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1781	3554	1532	1781	3554	1532	1186	1026	691	1302	276	1305
Grp Volume(v), veh/h	35	1831	35	35	1592	73	53	0	82	228	0	189
Grp Sat Flow(s),veh/h/ln	1781	1777	1532	1781	1777	1532	1186	0	1717	1302	0	1581
Q Serve(g_s), s	2.7	54.4	1.2	2.7	41.5	2.6	5.7	0.0	5.4	24.1	0.0	14.7
Cycle Q Clear(g_c), s	2.7	54.4	1.2	2.7	41.5	2.6	20.4	0.0	5.4	29.5	0.0	14.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		0.83
Lane Grp Cap(c), veh/h	45	2255	972	45	2255	972	198	0	392	298	0	360
V/C Ratio(X)	0.78	0.81	0.04	0.78	0.71	0.08	0.27	0.00	0.21	0.77	0.00	0.52
Avail Cap(c_a), veh/h	88	2255	972	71	2255	972	224	0	430	324	0	392
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.40	0.40	0.40	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.9	19.3	9.6	67.9	16.9	9.8	56.3	0.0	43.8	55.8	0.0	47.4
Incr Delay (d2), s/veh	4.4	1.4	0.0	10.4	1.9	0.2	0.3	0.0	0.1	8.3	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	21.8	0.4	1.4	16.9	0.9	1.7	0.0	2.3	8.6	0.0	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.2	20.6	9.6	78.2	18.8	10.0	56.6	0.0	43.9	64.1	0.0	47.8
LnGrp LOS	E	C	A	E	B	A	E	A	D	E	A	D
Approach Vol, veh/h		1901			1700			135			417	
Approach Delay, s/veh		21.4			19.7			48.9			56.7	
Approach LOS		C			B			D			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.9	94.9		37.2	7.9	94.9		37.2
Change Period (Y+Rc), s	4.4	* 6		5.3	4.4	6.0		* 5.3
Max Green Setting (Gmax), s	5.6	* 84		34.7	6.9	82.7		* 35
Max Q Clear Time (g_c+I1), s	4.7	56.4		31.5	4.7	43.5		22.4
Green Ext Time (p_c), s	0.0	25.1		0.4	0.0	30.8		0.3

Intersection Summary	
HCM 6th Ctrl Delay	25.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	19	28	57	13	25	28
Future Vol, veh/h	19	28	57	13	25	28
Conflicting Peds, #/hr	10	10	0	12	12	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	34	69	16	30	34

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	193	99	0	0	97	0
Stage 1	89	-	-	-	-	-
Stage 2	104	-	-	-	-	-
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	796	957	-	-	1496	-
Stage 1	934	-	-	-	-	-
Stage 2	920	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	763	937	-	-	1479	-
Mov Cap-2 Maneuver	763	-	-	-	-	-
Stage 1	924	-	-	-	-	-
Stage 2	892	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	3.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	858	1479	-
HCM Lane V/C Ratio	-	-	0.066	0.02	-
HCM Control Delay (s)	-	-	9.5	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	69	0	0	0	0	46
Future Vol, veh/h	69	0	0	0	0	46
Conflicting Peds, #/hr	10	0	0	10	10	10
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	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	83	0	0	0	0	55

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	11	0	-	0	187	21
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	176	-
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	1608	-	-	-	802	1056
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	855	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1593	-	-	-	745	1036
Mov Cap-2 Maneuver	-	-	-	-	745	-
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	846	-

Approach	EB	WB	SB
HCM Control Delay, s	7.4	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1593	-	-	-	1036
HCM Lane V/C Ratio	0.052	-	-	-	0.053
HCM Control Delay (s)	7.4	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.2

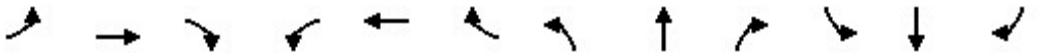
Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	19	19	59	98	11
Future Vol, veh/h	7	19	19	59	98	11
Conflicting Peds, #/hr	10	10	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	27	27	84	140	16

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	306	168	166	0	-	0
Stage 1	158	-	-	-	-	-
Stage 2	148	-	-	-	-	-
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	686	876	1412	-	-	-
Stage 1	871	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	659	859	1399	-	-	-
Mov Cap-2 Maneuver	659	-	-	-	-	-
Stage 1	845	-	-	-	-	-
Stage 2	871	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	1.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1399	-	794	-	-
HCM Lane V/C Ratio	0.019	-	0.047	-	-
HCM Control Delay (s)	7.6	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	362	21	545	325	19	28	42	822	19	104	17
Future Volume (veh/h)	30	362	21	545	325	19	28	42	822	19	104	17
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		0.97	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	398	23	599	357	21	31	46	903	21	114	19
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	44	670	39	697	1270	74	42	659	863	32	539	90
Arrive On Green	0.02	0.20	0.20	0.20	0.37	0.37	0.02	0.35	0.35	0.02	0.35	0.35
Sat Flow, veh/h	1781	3407	196	3456	3402	199	1781	1870	1543	1781	1556	259
Grp Volume(v), veh/h	33	207	214	599	186	192	31	46	903	21	0	133
Grp Sat Flow(s),veh/h/ln	1781	1777	1826	1728	1777	1824	1781	1870	1543	1781	0	1815
Q Serve(g_s), s	1.7	9.7	9.8	15.4	6.7	6.8	1.6	1.5	32.4	1.1	0.0	4.8
Cycle Q Clear(g_c), s	1.7	9.7	9.8	15.4	6.7	6.8	1.6	1.5	32.4	1.1	0.0	4.8
Prop In Lane	1.00		0.11	1.00		0.11	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	44	349	359	697	664	681	42	659	863	32	0	629
V/C Ratio(X)	0.75	0.59	0.60	0.86	0.28	0.28	0.73	0.07	1.05	0.65	0.00	0.21
Avail Cap(c_a), veh/h	124	540	555	1337	1123	1153	77	659	863	108	0	629
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	44.6	33.6	33.6	35.5	20.2	20.2	44.6	19.8	20.7	44.9	0.0	21.2
Incr Delay (d2), s/veh	9.0	2.5	2.5	1.2	0.4	0.4	8.7	0.2	43.4	8.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	4.4	4.5	6.5	2.8	2.9	0.8	0.7	27.0	0.5	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.6	36.1	36.2	36.7	20.5	20.6	53.3	20.0	64.1	52.9	0.0	22.0
LnGrp LOS	D	D	D	D	C	C	D	C	F	D	A	C
Approach Vol, veh/h		454			977			980			154	
Approach Delay, s/veh		37.4			30.5			61.7			26.2	
Approach LOS		D			C			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	38.1	23.0	24.9	6.6	37.6	6.7	41.2
Change Period (Y+Rc), s	4.4	5.7	4.4	6.8	4.4	* 5.7	4.4	* 6.8
Max Green Setting (Gmax), s	5.6	29.5	35.6	28.0	4.0	* 32	6.4	* 58
Max Q Clear Time (g_c+I1), s	3.1	34.4	17.4	11.8	3.6	6.8	3.7	8.8
Green Ext Time (p_c), s	0.0	0.0	1.1	3.3	0.0	0.9	0.0	4.0

Intersection Summary	
HCM 6th Ctrl Delay	43.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

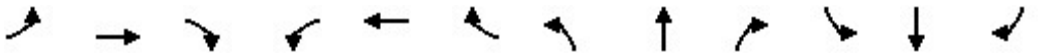
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	986	198	71	600	271	196
Future Volume (veh/h)	986	198	71	600	271	196
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1038	208	75	632	285	206
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1791	769	97	2151	924	424
Arrive On Green	0.50	0.50	0.05	0.61	0.27	0.27
Sat Flow, veh/h	3647	1526	1781	3647	3456	1585
Grp Volume(v), veh/h	1038	208	75	632	285	206
Grp Sat Flow(s),veh/h/ln	1777	1526	1781	1777	1728	1585
Q Serve(g_s), s	19.1	7.3	3.9	8.0	6.2	10.2
Cycle Q Clear(g_c), s	19.1	7.3	3.9	8.0	6.2	10.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1791	769	97	2151	924	424
V/C Ratio(X)	0.58	0.27	0.78	0.29	0.31	0.49
Avail Cap(c_a), veh/h	1791	769	221	2445	924	424
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	16.2	13.3	43.6	8.9	27.3	28.8
Incr Delay (d2), s/veh	1.4	0.9	4.9	0.1	0.9	3.9
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	2.6	1.8	2.9	2.6	4.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.6	14.2	48.6	9.0	28.2	32.8
LnGrp LOS	B	B	D	A	C	C
Approach Vol, veh/h	1246			707	491	
Approach Delay, s/veh	17.1			13.2	30.1	
Approach LOS	B			B	C	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	9.5	54.0			63.5	30.0
Change Period (Y+Rc), s	4.4	6.9			* 6.9	5.0
Max Green Setting (Gmax), s	15.6	47.1			* 64	25.0
Max Q Clear Time (g_c+I1), s	5.9	21.1			10.0	12.2
Green Ext Time (p_c), s	0.0	13.3			9.7	1.2

Intersection Summary	
HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	1320	221	259	1700	3	302	28	162	4	25	47
Future Volume (veh/h)	97	1320	221	259	1700	3	302	28	162	4	25	47
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		0.96	1.00		0.96	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	1483	248	291	1910	3	361	0	182	4	28	53
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	2255	684	314	2884	5	588	0	250	12	82	71
Arrive On Green	0.07	0.44	0.44	0.18	0.55	0.55	0.17	0.00	0.17	0.05	0.05	0.05
Sat Flow, veh/h	1781	5106	1548	1781	5264	8	3563	0	1514	232	1626	1402
Grp Volume(v), veh/h	109	1483	248	291	1235	678	361	0	182	32	0	53
Grp Sat Flow(s),veh/h/ln	1781	1702	1548	1781	1702	1869	1781	0	1514	1859	0	1402
Q Serve(g_s), s	7.8	29.3	13.6	20.6	33.0	33.0	12.1	0.0	14.6	2.1	0.0	4.8
Cycle Q Clear(g_c), s	7.8	29.3	13.6	20.6	33.0	33.0	12.1	0.0	14.6	2.1	0.0	4.8
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.12		1.00
Lane Grp Cap(c), veh/h	125	2255	684	314	1865	1024	588	0	250	94	0	71
V/C Ratio(X)	0.87	0.66	0.36	0.93	0.66	0.66	0.61	0.00	0.73	0.34	0.00	0.75
Avail Cap(c_a), veh/h	125	2255	684	315	1865	1024	1030	0	438	118	0	89
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.9	28.1	23.8	51.9	20.5	20.5	49.7	0.0	50.7	58.7	0.0	60.0
Incr Delay (d2), s/veh	42.5	1.5	1.5	31.7	1.9	3.4	0.4	0.0	1.5	0.8	0.0	17.1
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	12.1	5.3	11.9	13.3	15.0	5.4	0.0	5.6	1.0	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.4	29.6	25.2	83.5	22.4	23.9	50.0	0.0	52.2	59.5	0.0	77.0
LnGrp LOS	F	C	C	F	C	C	D	A	D	E	A	E
Approach Vol, veh/h		1840			2204			543			85	
Approach Delay, s/veh		33.3			30.9			50.8			70.4	
Approach LOS		C			C			D			E	

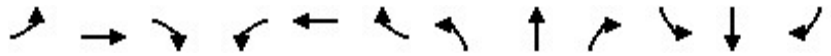
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	27.0	62.5		11.4	13.4	76.1		27.1				
Change Period (Y+Rc), s	4.4	6.0		4.9	4.4	* 6		6.0				
Max Green Setting (Gmax), s	22.6	39.0		8.1	9.0	* 53		37.0				
Max Q Clear Time (g_c+I1), s	22.6	31.3		6.8	9.8	35.0		16.6				
Green Ext Time (p_c), s	0.0	6.4		0.0	0.0	14.6		1.0				

Intersection Summary		
HCM 6th Ctrl Delay		34.9
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



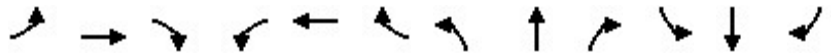
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1235	143	31	1797	22	100	7	38	18	6	4
Future Volume (veh/h)	19	1235	143	31	1797	22	100	7	38	18	6	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.97	1.00		0.84
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	1286	149	32	1872	23	104	7	40	19	6	4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	28	1728	199	41	1964	24	840	57	326	60	33	22
Arrive On Green	0.02	0.54	0.54	0.02	0.55	0.55	0.24	0.24	0.24	0.03	0.03	0.03
Sat Flow, veh/h	1781	3202	369	1781	3593	44	3456	235	1340	1781	968	645
Grp Volume(v), veh/h	20	711	724	32	923	972	104	0	47	19	0	10
Grp Sat Flow(s),veh/h/ln	1781	1777	1794	1781	1777	1861	1728	0	1575	1781	0	1614
Q Serve(g_s), s	1.4	39.3	39.9	2.3	62.8	63.4	3.0	0.0	3.0	1.3	0.0	0.8
Cycle Q Clear(g_c), s	1.4	39.3	39.9	2.3	62.8	63.4	3.0	0.0	3.0	1.3	0.0	0.8
Prop In Lane	1.00		0.21	1.00		0.02	1.00		0.85	1.00		0.40
Lane Grp Cap(c), veh/h	28	959	968	41	971	1017	840	0	383	60	0	54
V/C Ratio(X)	0.71	0.74	0.75	0.79	0.95	0.96	0.12	0.00	0.12	0.32	0.00	0.18
Avail Cap(c_a), veh/h	58	959	968	92	971	1017	840	0	383	60	0	54
HCM Platoon Ratio	1.00	1.00	1.00	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	0.47	0.47	0.47	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	62.7	22.6	22.7	62.2	27.4	27.5	37.8	0.0	37.8	60.4	0.0	60.1
Incr Delay (d2), s/veh	11.3	5.1	5.3	5.9	11.2	11.4	0.3	0.0	0.7	13.4	0.0	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	17.3	17.8	1.1	28.5	30.1	1.3	0.0	1.2	0.8	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.0	27.7	28.0	68.1	38.6	38.9	38.1	0.0	38.5	73.8	0.0	67.5
LnGrp LOS	E	C	C	E	D	D	D	A	D	E	A	E
Approach Vol, veh/h		1455			1927			151			29	
Approach Delay, s/veh		28.5			39.2			38.2			71.6	
Approach LOS		C			D			D			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.3	75.1		9.2	6.4	76.0		36.4
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		5.3
Max Green Setting (Gmax), s	6.6	* 66		4.3	4.2	67.8		31.1
Max Q Clear Time (g_c+I1), s	4.3	41.9		3.3	3.4	65.4		5.0
Green Ext Time (p_c), s	0.0	18.7		0.0	0.0	2.3		0.3

Intersection Summary		
HCM 6th Ctrl Delay	35.1	
HCM 6th LOS	D	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	1141	56	81	1679	231	44	29	47	168	44	66
Future Volume (veh/h)	107	1141	56	81	1679	231	44	29	47	168	44	66
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	115	1227	60	87	1805	248	47	31	51	181	47	71
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	2172	936	109	2123	915	237	127	209	268	134	203
Arrive On Green	0.08	0.61	0.61	0.06	0.60	0.60	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1781	3554	1531	1781	3554	1531	1260	620	1020	1301	656	991
Grp Volume(v), veh/h	115	1227	60	87	1805	248	47	0	82	181	0	118
Grp Sat Flow(s),veh/h/ln	1781	1777	1531	1781	1777	1531	1260	0	1641	1301	0	1647
Q Serve(g_s), s	8.2	26.2	2.0	6.2	53.2	10.0	4.2	0.0	5.4	17.3	0.0	7.9
Cycle Q Clear(g_c), s	8.2	26.2	2.0	6.2	53.2	10.0	12.1	0.0	5.4	22.7	0.0	7.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.62	1.00		0.60
Lane Grp Cap(c), veh/h	134	2172	936	109	2123	915	237	0	336	268	0	337
V/C Ratio(X)	0.86	0.56	0.06	0.80	0.85	0.27	0.20	0.00	0.24	0.67	0.00	0.35
Avail Cap(c_a), veh/h	134	2172	936	177	2123	915	271	0	381	300	0	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.58	0.58	0.58	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.5	14.8	10.1	59.3	21.1	12.4	48.8	0.0	42.6	52.1	0.0	43.6
Incr Delay (d2), s/veh	25.5	0.6	0.1	5.0	4.5	0.7	0.2	0.0	0.1	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	4.6	10.4	0.7	2.9	22.3	3.6	1.4	0.0	2.2	5.9	0.0	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.1	15.4	10.1	64.3	25.6	13.1	48.9	0.0	42.7	55.8	0.0	43.8
LnGrp LOS	F	B	B	E	C	B	D	A	D	E	A	D
Approach Vol, veh/h		1402			2140			129			299	
Approach Delay, s/veh		20.8			25.7			45.0			51.1	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.2	84.2		31.5	14.0	82.5		31.5
Change Period (Y+Rc), s	4.4	* 6		5.3	4.4	6.0		* 5.3
Max Green Setting (Gmax), s	12.7	* 71		29.3	9.6	73.4		* 30
Max Q Clear Time (g_c+I1), s	8.2	28.2		24.7	10.2	55.2		14.1
Green Ext Time (p_c), s	0.0	25.4		0.3	0.0	17.1		0.3

Intersection Summary	
HCM 6th Ctrl Delay	26.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	22	38	47	25	44	59
Future Vol, veh/h	22	38	47	25	44	59
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	46	57	30	53	71

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	269	92	0	0	97	0
Stage 1	82	-	-	-	-	-
Stage 2	187	-	-	-	-	-
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	720	965	-	-	1496	-
Stage 1	941	-	-	-	-	-
Stage 2	845	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	680	947	-	-	1482	-
Mov Cap-2 Maneuver	680	-	-	-	-	-
Stage 1	932	-	-	-	-	-
Stage 2	806	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	3.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	828	1482	-
HCM Lane V/C Ratio	-	-	0.087	0.036	-
HCM Control Delay (s)	-	-	9.8	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Int Delay, s/veh	8.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	72	0	0	0	0	81
Future Vol, veh/h	72	0	0	0	0	81
Conflicting Peds, #/hr	10	0	0	10	10	10
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	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	87	0	0	0	0	98

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	11	0	-	0	195	21
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	184	-
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	1608	-	-	-	794	1056
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	848	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1593	-	-	-	735	1036
Mov Cap-2 Maneuver	-	-	-	-	735	-
Stage 1	-	-	-	-	947	-
Stage 2	-	-	-	-	840	-

Approach	EB	WB	SB
HCM Control Delay, s	7.4	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1593	-	-	-	1036
HCM Lane V/C Ratio	0.054	-	-	-	0.094
HCM Control Delay (s)	7.4	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

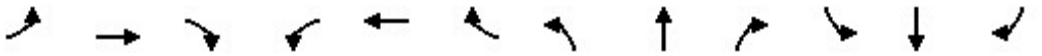
Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	31	35	119	59	19
Future Vol, veh/h	12	31	35	119	59	19
Conflicting Peds, #/hr	10	10	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	35	40	135	67	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	313	98	99	0	-	0
Stage 1	88	-	-	-	-	-
Stage 2	225	-	-	-	-	-
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	680	958	1494	-	-	-
Stage 1	935	-	-	-	-	-
Stage 2	812	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	647	940	1480	-	-	-
Mov Cap-2 Maneuver	647	-	-	-	-	-
Stage 1	899	-	-	-	-	-
Stage 2	804	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	1.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1480	-	835	-	-
HCM Lane V/C Ratio	0.027	-	0.059	-	-
HCM Control Delay (s)	7.5	0	9.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	411	29	659	322	22	44	93	804	21	41	32
Future Volume (veh/h)	60	411	29	659	322	22	44	93	804	21	41	32
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		0.97	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	442	31	709	346	24	47	100	865	23	44	34
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	84	693	48	805	1318	91	60	596	860	34	293	227
Arrive On Green	0.05	0.21	0.21	0.23	0.39	0.39	0.03	0.32	0.32	0.02	0.30	0.30
Sat Flow, veh/h	1781	3360	235	3456	3362	232	1781	1870	1541	1781	965	745
Grp Volume(v), veh/h	65	233	240	709	182	188	47	100	865	23	0	78
Grp Sat Flow(s),veh/h/ln	1781	1777	1818	1728	1777	1817	1781	1870	1541	1781	0	1710
Q Serve(g_s), s	3.4	11.4	11.5	18.9	6.6	6.7	2.5	3.7	30.4	1.2	0.0	3.2
Cycle Q Clear(g_c), s	3.4	11.4	11.5	18.9	6.6	6.7	2.5	3.7	30.4	1.2	0.0	3.2
Prop In Lane	1.00		0.13	1.00		0.13	1.00		1.00	1.00		0.44
Lane Grp Cap(c), veh/h	84	367	375	805	697	712	60	596	860	34	0	520
V/C Ratio(X)	0.78	0.64	0.64	0.88	0.26	0.26	0.79	0.17	1.01	0.67	0.00	0.15
Avail Cap(c_a), veh/h	181	521	533	1253	1004	1026	86	596	860	106	0	579
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	45.0	34.6	34.6	35.3	19.6	19.7	45.8	23.4	21.6	46.5	0.0	24.2
Incr Delay (d2), s/veh	5.7	2.9	2.9	3.2	0.3	0.3	15.9	0.1	32.2	8.3	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	1.6	5.2	5.3	8.1	2.7	2.8	1.4	1.6	25.0	0.6	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.6	37.5	37.5	38.5	20.0	20.0	61.6	23.6	53.8	54.8	0.0	24.4
LnGrp LOS	D	D	D	D	B	B	E	C	F	D	A	C
Approach Vol, veh/h		538			1079			1012			101	
Approach Delay, s/veh		39.1			32.1			51.2			31.3	
Approach LOS		D			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	36.1	26.6	26.5	7.6	34.7	8.9	44.2
Change Period (Y+Rc), s	4.4	5.7	4.4	6.8	4.4	* 5.7	4.4	* 6.8
Max Green Setting (Gmax), s	5.7	30.4	34.6	28.0	4.6	* 32	9.7	* 54
Max Q Clear Time (g_c+I1), s	3.2	32.4	20.9	13.5	4.5	5.2	5.4	8.7
Green Ext Time (p_c), s	0.0	0.0	1.3	3.6	0.0	0.5	0.0	3.9

Intersection Summary	
HCM 6th Ctrl Delay	40.5
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



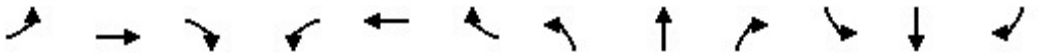
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	965	263	165	832	187	156
Future Volume (veh/h)	965	263	165	832	187	156
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1049	286	179	904	203	170
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1617	693	214	2213	859	394
Arrive On Green	0.46	0.46	0.12	0.62	0.25	0.25
Sat Flow, veh/h	3647	1524	1781	3647	3456	1585
Grp Volume(v), veh/h	1049	286	179	904	203	170
Grp Sat Flow(s),veh/h/ln	1777	1524	1781	1777	1728	1585
Q Serve(g_s), s	21.1	11.7	9.1	11.9	4.3	8.4
Cycle Q Clear(g_c), s	21.1	11.7	9.1	11.9	4.3	8.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1617	693	214	2213	859	394
V/C Ratio(X)	0.65	0.41	0.84	0.41	0.24	0.43
Avail Cap(c_a), veh/h	1617	693	358	2546	859	394
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	19.5	16.9	39.8	8.8	27.8	29.3
Incr Delay (d2), s/veh	2.0	1.8	3.3	0.2	0.6	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	4.3	4.1	4.2	1.8	3.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.5	18.7	43.1	9.1	28.4	32.7
LnGrp LOS	C	B	D	A	C	C
Approach Vol, veh/h	1335			1083	373	
Approach Delay, s/veh	20.9			14.7	30.3	
Approach LOS	C			B	C	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	15.5	49.0			64.5	28.0
Change Period (Y+Rc), s	4.4	6.9			* 6.9	5.0
Max Green Setting (Gmax), s	18.6	42.1			* 66	23.0
Max Q Clear Time (g_c+I1), s	11.1	23.1			13.9	10.4
Green Ext Time (p_c), s	0.1	11.5			15.7	0.9

Intersection Summary		
HCM 6th Ctrl Delay	19.8	
HCM 6th LOS	B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	1644	196	167	1608	7	429	23	59	9	15	55
Future Volume (veh/h)	32	1644	196	167	1608	7	429	23	59	9	15	55
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		0.97	1.00		0.95	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	1827	218	186	1787	8	496	0	66	10	17	61
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	2530	768	209	3079	14	639	0	271	38	64	78
Arrive On Green	0.03	0.50	0.50	0.12	0.59	0.59	0.18	0.00	0.18	0.06	0.06	0.06
Sat Flow, veh/h	1781	5106	1550	1781	5246	23	3563	0	1513	680	1156	1401
Grp Volume(v), veh/h	36	1827	218	186	1160	635	496	0	66	27	0	61
Grp Sat Flow(s),veh/h/ln	1781	1702	1550	1781	1702	1865	1781	0	1513	1836	0	1401
Q Serve(g_s), s	2.8	39.4	11.6	14.4	29.9	29.9	18.6	0.0	5.2	2.0	0.0	6.0
Cycle Q Clear(g_c), s	2.8	39.4	11.6	14.4	29.9	29.9	18.6	0.0	5.2	2.0	0.0	6.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.37		1.00
Lane Grp Cap(c), veh/h	46	2530	768	209	1998	1095	639	0	271	102	0	78
V/C Ratio(X)	0.78	0.72	0.28	0.89	0.58	0.58	0.78	0.00	0.24	0.26	0.00	0.78
Avail Cap(c_a), veh/h	88	2530	768	234	1998	1095	942	0	400	132	0	101
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.8	27.8	20.7	60.9	18.1	18.1	54.8	0.0	49.3	63.4	0.0	65.3
Incr Delay (d2), s/veh	10.1	1.8	0.9	27.6	1.2	2.2	1.2	0.0	0.2	0.5	0.0	18.9
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	1.4	16.3	4.4	8.1	11.9	13.4	8.5	0.0	2.0	0.9	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.8	29.6	21.7	88.4	19.3	20.4	56.0	0.0	49.5	63.9	0.0	84.2
LnGrp LOS	E	C	C	F	B	C	E	A	D	E	A	F
Approach Vol, veh/h		2081			1981			562			88	
Approach Delay, s/veh		29.6			26.2			55.2			77.9	
Approach LOS		C			C			E			E	

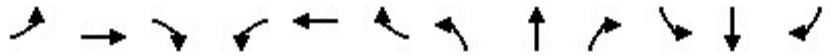
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.8	75.4		12.7	8.0	88.2		31.1				
Change Period (Y+Rc), s	4.4	6.0		4.9	4.4	* 6		6.0				
Max Green Setting (Gmax), s	18.4	53.2		10.1	6.9	* 65		37.0				
Max Q Clear Time (g_c+I1), s	16.4	41.4		8.0	4.8	31.9		20.6				
Green Ext Time (p_c), s	0.1	10.3		0.0	0.0	22.4		1.0				

Intersection Summary		
HCM 6th Ctrl Delay		32.1
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



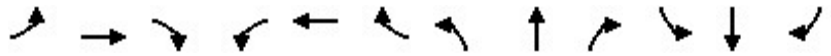
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1602	88	3	1546	3	132	7	23	13	11	3
Future Volume (veh/h)	0	1602	88	3	1546	3	132	7	23	13	11	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.96	1.00		0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1780	98	3	1718	3	147	8	26	14	12	3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1	2049	112	6	2306	4	765	83	270	52	40	10
Arrive On Green	0.00	0.60	0.60	0.00	0.63	0.63	0.22	0.22	0.22	0.03	0.03	0.03
Sat Flow, veh/h	1781	3421	187	1781	3639	6	3456	375	1218	1781	1366	341
Grp Volume(v), veh/h	0	916	962	3	839	882	147	0	34	14	0	15
Grp Sat Flow(s),veh/h/ln	1781	1777	1831	1781	1777	1869	1728	0	1593	1781	0	1707
Q Serve(g_s), s	0.0	59.8	62.1	0.2	45.8	45.9	4.8	0.0	2.4	1.1	0.0	1.2
Cycle Q Clear(g_c), s	0.0	59.8	62.1	0.2	45.8	45.9	4.8	0.0	2.4	1.1	0.0	1.2
Prop In Lane	1.00		0.10	1.00		0.00	1.00		0.76	1.00		0.20
Lane Grp Cap(c), veh/h	1	1064	1097	6	1126	1184	765	0	353	52	0	50
V/C Ratio(X)	0.00	0.86	0.88	0.54	0.74	0.75	0.19	0.00	0.10	0.27	0.00	0.30
Avail Cap(c_a), veh/h	51	1064	1097	51	1126	1184	765	0	353	52	0	50
HCM Platoon Ratio	1.00	1.00	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	1.00	0.67	0.67	0.67	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	23.2	23.7	69.7	17.8	17.8	44.3	0.0	43.4	66.5	0.0	66.5
Incr Delay (d2), s/veh	0.0	9.1	9.9	18.3	3.0	2.9	0.6	0.0	0.5	12.2	0.0	14.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	26.8	28.8	0.1	19.0	20.0	2.2	0.0	1.0	0.7	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	32.4	33.6	88.0	20.8	20.7	44.9	0.0	43.9	78.7	0.0	81.3
LnGrp LOS	A	C	C	F	C	C	D	A	D	E	A	F
Approach Vol, veh/h		1878			1724			181			29	
Approach Delay, s/veh		33.0			20.9			44.7			80.0	
Approach LOS		C			C			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	89.9		9.0	0.0	94.7		36.3				
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		5.3				
Max Green Setting (Gmax), s	4.6	* 81		4.1	4.0	80.3		31.0				
Max Q Clear Time (g_c+I1), s	2.2	64.1		3.2	0.0	47.9		6.8				
Green Ext Time (p_c), s	0.0	15.6		0.0	0.0	27.4		0.4				

Intersection Summary	
HCM 6th Ctrl Delay	28.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1575	30	33	1369	63	46	55	41	196	31	134
Future Volume (veh/h)	30	1575	30	33	1369	63	46	55	41	196	31	134
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.97	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	35	1831	35	38	1592	73	53	64	48	228	36	156
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	45	2188	943	49	2196	946	218	239	179	295	73	315
Arrive On Green	0.03	0.62	0.62	0.03	0.62	0.62	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1781	3554	1531	1781	3554	1531	1184	977	732	1270	297	1289
Grp Volume(v), veh/h	35	1831	35	38	1592	73	53	0	112	228	0	192
Grp Sat Flow(s),veh/h/ln	1781	1777	1531	1781	1777	1531	1184	0	1709	1270	0	1587
Q Serve(g_s), s	2.7	57.2	1.3	3.0	43.4	2.7	5.6	0.0	7.4	24.8	0.0	14.6
Cycle Q Clear(g_c), s	2.7	57.2	1.3	3.0	43.4	2.7	20.2	0.0	7.4	32.2	0.0	14.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.43	1.00		0.81
Lane Grp Cap(c), veh/h	45	2188	943	49	2196	946	218	0	418	295	0	388
V/C Ratio(X)	0.78	0.84	0.04	0.78	0.72	0.08	0.24	0.00	0.27	0.77	0.00	0.49
Avail Cap(c_a), veh/h	88	2188	943	71	2196	946	225	0	428	299	0	393
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.40	0.40	0.40	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.9	21.3	10.6	67.7	18.5	10.7	54.1	0.0	42.7	55.7	0.0	45.4
Incr Delay (d2), s/veh	4.4	1.7	0.0	15.8	2.1	0.2	0.2	0.0	0.1	10.6	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	23.3	0.4	1.6	17.9	1.0	1.7	0.0	3.2	8.8	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.2	23.0	10.6	83.5	20.6	10.9	54.3	0.0	42.9	66.3	0.0	45.8
LnGrp LOS	E	C	B	F	C	B	D	A	D	E	A	D
Approach Vol, veh/h		1901			1703			165			420	
Approach Delay, s/veh		23.7			21.6			46.5			57.0	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.2	92.2		39.6	7.9	92.5		39.6
Change Period (Y+Rc), s	4.4	* 6		5.3	4.4	6.0		* 5.3
Max Green Setting (Gmax), s	5.6	* 84		34.7	6.9	82.7		* 35
Max Q Clear Time (g_c+I1), s	5.0	59.2		34.2	4.7	45.4		22.2
Green Ext Time (p_c), s	0.0	22.8		0.1	0.0	29.6		0.4

Intersection Summary	
HCM 6th Ctrl Delay	27.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	4.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	31	41	71	26	28	31
Future Vol, veh/h	31	41	71	26	28	31
Conflicting Peds, #/hr	10	10	0	12	12	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	37	49	86	31	34	37

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	229	124	0	0	129	0
Stage 1	114	-	-	-	-	-
Stage 2	115	-	-	-	-	-
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	759	927	-	-	1457	-
Stage 1	911	-	-	-	-	-
Stage 2	910	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	726	908	-	-	1440	-
Mov Cap-2 Maneuver	726	-	-	-	-	-
Stage 1	901	-	-	-	-	-
Stage 2	880	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	3.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	820	1440	-
HCM Lane V/C Ratio	-	-	0.106	0.023	-
HCM Control Delay (s)	-	-	9.9	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	71	3	10	25	6	55
Future Vol, veh/h	71	3	10	25	6	55
Conflicting Peds, #/hr	10	0	0	10	10	10
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	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	86	4	12	30	7	66

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	52	0	-	0	223	47
Stage 1	-	-	-	-	37	-
Stage 2	-	-	-	-	186	-
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	1554	-	-	-	765	1022
Stage 1	-	-	-	-	985	-
Stage 2	-	-	-	-	846	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1539	-	-	-	708	1003
Mov Cap-2 Maneuver	-	-	-	-	708	-
Stage 1	-	-	-	-	921	-
Stage 2	-	-	-	-	838	-

Approach	EB	WB	SB
HCM Control Delay, s	7.2	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1539	-	-	-	964
HCM Lane V/C Ratio	0.056	-	-	-	0.076
HCM Control Delay (s)	7.5	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.2

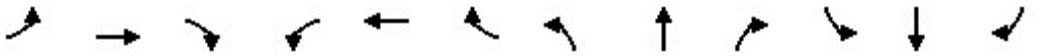
Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	26	32	22	62	109	16
Future Vol, veh/h	26	32	22	62	109	16
Conflicting Peds, #/hr	10	10	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	37	46	31	89	156	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	339	188	189	0	-	0
Stage 1	178	-	-	-	-	-
Stage 2	161	-	-	-	-	-
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	657	854	1385	-	-	-
Stage 1	853	-	-	-	-	-
Stage 2	868	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	629	838	1372	-	-	-
Mov Cap-2 Maneuver	629	-	-	-	-	-
Stage 1	824	-	-	-	-	-
Stage 2	859	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1372	-	729	-	-
HCM Lane V/C Ratio	0.023	-	0.114	-	-
HCM Control Delay (s)	7.7	0	10.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	362	21	545	325	20	28	46	822	23	122	19
Future Volume (veh/h)	31	362	21	545	325	20	28	46	822	23	122	19
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		0.97	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	398	23	599	357	22	31	51	903	25	134	21
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	45	670	39	697	1265	78	42	654	859	37	545	85
Arrive On Green	0.03	0.20	0.20	0.20	0.37	0.37	0.02	0.35	0.35	0.02	0.35	0.35
Sat Flow, veh/h	1781	3407	196	3456	3391	208	1781	1870	1543	1781	1572	246
Grp Volume(v), veh/h	34	207	214	599	186	193	31	51	903	25	0	155
Grp Sat Flow(s),veh/h/ln	1781	1777	1826	1728	1777	1822	1781	1870	1543	1781	0	1818
Q Serve(g_s), s	1.7	9.7	9.8	15.4	6.8	6.8	1.6	1.7	32.2	1.3	0.0	5.6
Cycle Q Clear(g_c), s	1.7	9.7	9.8	15.4	6.8	6.8	1.6	1.7	32.2	1.3	0.0	5.6
Prop In Lane	1.00		0.11	1.00		0.11	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	45	349	359	697	663	680	42	654	859	37	0	630
V/C Ratio(X)	0.76	0.59	0.60	0.86	0.28	0.28	0.73	0.08	1.05	0.68	0.00	0.25
Avail Cap(c_a), veh/h	124	540	555	1337	1123	1152	77	654	859	108	0	630
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	44.6	33.6	33.6	35.5	20.2	20.2	44.6	20.0	20.8	44.8	0.0	21.5
Incr Delay (d2), s/veh	9.2	2.5	2.5	1.2	0.4	0.4	8.7	0.2	44.9	8.1	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	4.4	4.5	6.5	2.8	2.9	0.8	0.8	27.3	0.6	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.8	36.1	36.2	36.7	20.6	20.6	53.3	20.2	65.8	52.9	0.0	22.4
LnGrp LOS	D	D	D	D	C	C	D	C	F	D	A	C
Approach Vol, veh/h		455			978			985			180	
Approach Delay, s/veh		37.5			30.5			63.0			26.6	
Approach LOS		D			C			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	37.9	23.0	24.9	6.6	37.6	6.7	41.1
Change Period (Y+Rc), s	4.4	5.7	4.4	6.8	4.4	* 5.7	4.4	* 6.8
Max Green Setting (Gmax), s	5.6	29.5	35.6	28.0	4.0	* 32	6.4	* 58
Max Q Clear Time (g_c+I1), s	3.3	34.2	17.4	11.8	3.6	7.6	3.7	8.8
Green Ext Time (p_c), s	0.0	0.0	1.1	3.3	0.0	1.1	0.0	4.0

Intersection Summary	
HCM 6th Ctrl Delay	43.8
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

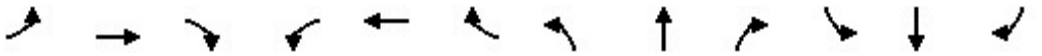
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	989	199	71	601	271	196
Future Volume (veh/h)	989	199	71	601	271	196
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1041	209	75	633	285	206
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1791	769	97	2151	924	424
Arrive On Green	0.50	0.50	0.05	0.61	0.27	0.27
Sat Flow, veh/h	3647	1526	1781	3647	3456	1585
Grp Volume(v), veh/h	1041	209	75	633	285	206
Grp Sat Flow(s),veh/h/ln	1777	1526	1781	1777	1728	1585
Q Serve(g_s), s	19.2	7.4	3.9	8.0	6.2	10.2
Cycle Q Clear(g_c), s	19.2	7.4	3.9	8.0	6.2	10.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1791	769	97	2151	924	424
V/C Ratio(X)	0.58	0.27	0.78	0.29	0.31	0.49
Avail Cap(c_a), veh/h	1791	769	221	2445	924	424
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	16.3	13.3	43.6	8.9	27.3	28.8
Incr Delay (d2), s/veh	1.4	0.9	4.9	0.1	0.9	3.9
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	2.6	1.8	2.9	2.6	4.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.7	14.2	48.6	9.0	28.2	32.8
LnGrp LOS	B	B	D	A	C	C
Approach Vol, veh/h	1250			708	491	
Approach Delay, s/veh	17.1			13.2	30.1	
Approach LOS	B			B	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	9.5	54.0				63.5	30.0
Change Period (Y+Rc), s	4.4	6.9				* 6.9	5.0
Max Green Setting (Gmax), s	11.6	47.1				* 64	25.0
Max Q Clear Time (g_c+I1), s	5.9	21.2				10.0	12.2
Green Ext Time (p_c), s	0.0	13.3				9.7	1.2

Intersection Summary	
HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	1327	221	259	1703	3	302	28	162	4	25	47
Future Volume (veh/h)	97	1327	221	259	1703	3	302	28	162	4	25	47
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		0.96	1.00		0.96	1.00		0.88
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	109	1491	248	291	1913	3	361	0	182	4	28	53
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	2255	684	314	2884	5	588	0	250	12	82	71
Arrive On Green	0.07	0.44	0.44	0.18	0.55	0.55	0.17	0.00	0.17	0.05	0.05	0.05
Sat Flow, veh/h	1781	5106	1548	1781	5264	8	3563	0	1514	232	1626	1402
Grp Volume(v), veh/h	109	1491	248	291	1237	679	361	0	182	32	0	53
Grp Sat Flow(s),veh/h/ln	1781	1702	1548	1781	1702	1869	1781	0	1514	1859	0	1402
Q Serve(g_s), s	7.8	29.5	13.6	20.6	33.0	33.0	12.1	0.0	14.6	2.1	0.0	4.8
Cycle Q Clear(g_c), s	7.8	29.5	13.6	20.6	33.0	33.0	12.1	0.0	14.6	2.1	0.0	4.8
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.12		1.00
Lane Grp Cap(c), veh/h	125	2255	684	314	1865	1024	588	0	250	94	0	71
V/C Ratio(X)	0.87	0.66	0.36	0.93	0.66	0.66	0.61	0.00	0.73	0.34	0.00	0.75
Avail Cap(c_a), veh/h	125	2255	684	315	1865	1024	1030	0	438	118	0	89
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.9	28.2	23.8	51.9	20.6	20.6	49.7	0.0	50.7	58.7	0.0	60.0
Incr Delay (d2), s/veh	42.5	1.5	1.5	31.7	1.9	3.4	0.4	0.0	1.5	0.8	0.0	17.1
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	12.2	5.3	11.9	13.3	15.0	5.4	0.0	5.6	1.0	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.4	29.7	25.2	83.5	22.4	23.9	50.0	0.0	52.2	59.5	0.0	77.0
LnGrp LOS	F	C	C	F	C	C	D	A	D	E	A	E
Approach Vol, veh/h		1848			2207			543			85	
Approach Delay, s/veh		33.3			31.0			50.8			70.4	
Approach LOS		C			C			D			E	

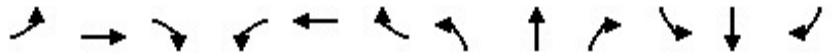
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	27.0	62.5		11.4	13.4	76.1		27.1				
Change Period (Y+Rc), s	4.4	6.0		4.9	4.4	* 6		6.0				
Max Green Setting (Gmax), s	22.6	39.0		8.1	9.0	* 53		37.0				
Max Q Clear Time (g_c+I1), s	22.6	31.5		6.8	9.8	35.0		16.6				
Green Ext Time (p_c), s	0.0	6.3		0.0	0.0	14.6		1.0				

Intersection Summary		
HCM 6th Ctrl Delay		34.9
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



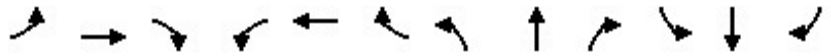
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	1235	151	31	1797	22	103	7	38	18	6	4
Future Volume (veh/h)	19	1235	151	31	1797	22	103	7	38	18	6	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.97	1.00		0.84
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	1286	157	32	1872	23	107	7	40	19	6	4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	28	1717	208	41	1964	24	840	57	326	60	33	22
Arrive On Green	0.02	0.54	0.54	0.02	0.55	0.55	0.24	0.24	0.24	0.03	0.03	0.03
Sat Flow, veh/h	1781	3181	386	1781	3593	44	3456	235	1340	1781	968	645
Grp Volume(v), veh/h	20	715	728	32	923	972	107	0	47	19	0	10
Grp Sat Flow(s),veh/h/ln	1781	1777	1791	1781	1777	1861	1728	0	1575	1781	0	1614
Q Serve(g_s), s	1.4	39.7	40.3	2.3	62.8	63.4	3.1	0.0	3.0	1.3	0.0	0.8
Cycle Q Clear(g_c), s	1.4	39.7	40.3	2.3	62.8	63.4	3.1	0.0	3.0	1.3	0.0	0.8
Prop In Lane	1.00		0.22	1.00		0.02	1.00		0.85	1.00		0.40
Lane Grp Cap(c), veh/h	28	959	967	41	971	1017	840	0	383	60	0	54
V/C Ratio(X)	0.71	0.75	0.75	0.79	0.95	0.96	0.13	0.00	0.12	0.32	0.00	0.18
Avail Cap(c_a), veh/h	58	959	967	92	971	1017	840	0	383	60	0	54
HCM Platoon Ratio	1.00	1.00	1.00	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	0.47	0.47	0.47	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	62.7	22.7	22.8	62.2	27.4	27.5	37.9	0.0	37.8	60.4	0.0	60.1
Incr Delay (d2), s/veh	11.3	5.3	5.4	5.9	11.2	11.4	0.3	0.0	0.7	13.4	0.0	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	17.6	18.0	1.1	28.5	30.1	1.4	0.0	1.2	0.8	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.0	28.0	28.3	68.1	38.6	38.9	38.2	0.0	38.5	73.8	0.0	67.5
LnGrp LOS	E	C	C	E	D	D	D	A	D	E	A	E
Approach Vol, veh/h		1463			1927			154			29	
Approach Delay, s/veh		28.7			39.2			38.3			71.6	
Approach LOS		C			D			D			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.3	75.1		9.2	6.4	76.0		36.4
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		5.3
Max Green Setting (Gmax), s	6.6	* 66		4.3	4.2	67.8		31.1
Max Q Clear Time (g_c+I1), s	4.3	42.3		3.3	3.4	65.4		5.1
Green Ext Time (p_c), s	0.0	18.5		0.0	0.0	2.3		0.4

Intersection Summary		
HCM 6th Ctrl Delay		35.2
HCM 6th LOS		D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	1141	56	95	1679	231	44	36	53	168	59	66
Future Volume (veh/h)	107	1141	56	95	1679	231	44	36	53	168	59	66
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	115	1227	60	102	1805	248	47	39	57	181	63	71
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	2118	912	125	2102	905	233	141	207	265	166	187
Arrive On Green	0.08	0.60	0.60	0.07	0.59	0.59	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1781	3554	1531	1781	3554	1530	1243	671	980	1285	786	886
Grp Volume(v), veh/h	115	1227	60	102	1805	248	47	0	96	181	0	134
Grp Sat Flow(s),veh/h/ln	1781	1777	1531	1781	1777	1530	1243	0	1650	1285	0	1672
Q Serve(g_s), s	8.2	27.3	2.1	7.2	54.0	10.1	4.3	0.0	6.2	17.6	0.0	8.8
Cycle Q Clear(g_c), s	8.2	27.3	2.1	7.2	54.0	10.1	13.1	0.0	6.2	23.8	0.0	8.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.59	1.00		0.53
Lane Grp Cap(c), veh/h	134	2118	912	125	2102	905	233	0	348	265	0	353
V/C Ratio(X)	0.86	0.58	0.07	0.81	0.86	0.27	0.20	0.00	0.28	0.68	0.00	0.38
Avail Cap(c_a), veh/h	134	2118	912	177	2102	905	259	0	383	288	0	383
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.58	0.58	0.58	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.5	16.0	10.9	58.7	21.7	12.7	49.0	0.0	42.3	52.3	0.0	43.3
Incr Delay (d2), s/veh	25.5	0.7	0.1	12.1	4.8	0.7	0.2	0.0	0.2	4.5	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	11.0	0.7	3.7	22.7	3.6	1.4	0.0	2.6	6.0	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.1	16.6	11.0	70.8	26.5	13.5	49.1	0.0	42.5	56.8	0.0	43.6
LnGrp LOS	F	B	B	E	C	B	D	A	D	E	A	D
Approach Vol, veh/h		1402			2155			143			315	
Approach Delay, s/veh		21.9			27.1			44.7			51.2	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.4	82.3		32.3	14.0	81.7		32.3
Change Period (Y+Rc), s	4.4	* 6		5.3	4.4	6.0		* 5.3
Max Green Setting (Gmax), s	12.6	* 71		29.3	9.6	73.4		* 30
Max Q Clear Time (g_c+I1), s	10.2	29.3		25.8	10.2	56.0		15.1
Green Ext Time (p_c), s	0.0	25.0		0.3	0.0	16.4		0.3

Intersection Summary	
HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	4.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	38	44	54	40	58	74
Future Vol, veh/h	38	44	54	40	58	74
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	53	65	48	70	89

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	338	109	0	0	123	0
Stage 1	99	-	-	-	-	-
Stage 2	239	-	-	-	-	-
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	658	945	-	-	1464	-
Stage 1	925	-	-	-	-	-
Stage 2	801	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	612	927	-	-	1450	-
Mov Cap-2 Maneuver	612	-	-	-	-	-
Stage 1	916	-	-	-	-	-
Stage 2	753	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	3.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	748	1450	-
HCM Lane V/C Ratio	-	-	0.132	0.048	-
HCM Control Delay (s)	-	-	10.5	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.2	-

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	82	12	5	12	27	85
Future Vol, veh/h	82	12	5	12	27	85
Conflicting Peds, #/hr	10	0	0	10	10	10
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	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	99	14	6	14	33	102

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	30	0	-	0	245	33
Stage 1	-	-	-	-	23	-
Stage 2	-	-	-	-	222	-
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	1583	-	-	-	743	1041
Stage 1	-	-	-	-	1000	-
Stage 2	-	-	-	-	815	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1568	-	-	-	681	1021
Mov Cap-2 Maneuver	-	-	-	-	681	-
Stage 1	-	-	-	-	927	-
Stage 2	-	-	-	-	807	-

Approach	EB	WB	SB
HCM Control Delay, s	6.5	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1568	-	-	-	911
HCM Lane V/C Ratio	0.063	-	-	-	0.148
HCM Control Delay (s)	7.5	0	-	-	9.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.5

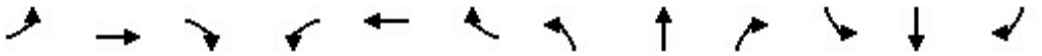
Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	21	37	49	131	64	40
Future Vol, veh/h	21	37	49	131	64	40
Conflicting Peds, #/hr	10	10	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	42	56	149	73	45

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	377	116	128	0	-	0
Stage 1	106	-	-	-	-	-
Stage 2	271	-	-	-	-	-
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	625	936	1458	-	-	-
Stage 1	918	-	-	-	-	-
Stage 2	775	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	587	918	1444	-	-	-
Mov Cap-2 Maneuver	587	-	-	-	-	-
Stage 1	870	-	-	-	-	-
Stage 2	767	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	2.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1444	-	762	-	-
HCM Lane V/C Ratio	0.039	-	0.086	-	-
HCM Control Delay (s)	7.6	0	10.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	411	29	659	322	27	44	112	804	23	49	33
Future Volume (veh/h)	62	411	29	659	322	27	44	112	804	23	49	33
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		0.97	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	442	31	709	346	29	47	120	865	25	53	35
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	86	693	48	804	1292	108	60	595	859	36	316	209
Arrive On Green	0.05	0.21	0.21	0.23	0.39	0.39	0.03	0.32	0.32	0.02	0.30	0.30
Sat Flow, veh/h	1781	3360	235	3456	3308	275	1781	1870	1540	1781	1038	685
Grp Volume(v), veh/h	67	233	240	709	185	190	47	120	865	25	0	88
Grp Sat Flow(s),veh/h/ln	1781	1777	1818	1728	1777	1807	1781	1870	1540	1781	0	1723
Q Serve(g_s), s	3.6	11.5	11.6	18.9	6.8	6.9	2.5	4.5	30.4	1.3	0.0	3.6
Cycle Q Clear(g_c), s	3.6	11.5	11.6	18.9	6.8	6.9	2.5	4.5	30.4	1.3	0.0	3.6
Prop In Lane	1.00		0.13	1.00		0.15	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	86	366	375	804	694	705	60	595	859	36	0	525
V/C Ratio(X)	0.78	0.64	0.64	0.88	0.27	0.27	0.79	0.20	1.01	0.69	0.00	0.17
Avail Cap(c_a), veh/h	181	520	532	1251	1002	1019	86	595	859	106	0	582
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	45.0	34.7	34.7	35.4	19.8	19.9	45.9	23.8	21.7	46.5	0.0	24.4
Incr Delay (d2), s/veh	5.5	2.9	2.9	3.2	0.3	0.3	16.0	0.2	32.5	8.4	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	1.7	5.2	5.3	8.2	2.8	2.9	1.4	2.0	25.1	0.7	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	37.6	37.6	38.6	20.1	20.2	61.8	23.9	54.1	55.0	0.0	24.5
LnGrp LOS	D	D	D	D	C	C	E	C	F	D	A	C
Approach Vol, veh/h		540			1084			1032			113	
Approach Delay, s/veh		39.2			32.2			51.0			31.3	
Approach LOS		D			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	36.1	26.7	26.5	7.6	34.8	9.0	44.1
Change Period (Y+Rc), s	4.4	5.7	4.4	6.8	4.4	* 5.7	4.4	* 6.8
Max Green Setting (Gmax), s	5.7	30.4	34.6	28.0	4.6	* 32	9.7	* 54
Max Q Clear Time (g_c+I1), s	3.3	32.4	20.9	13.6	4.5	5.6	5.6	8.9
Green Ext Time (p_c), s	0.0	0.0	1.3	3.6	0.0	0.6	0.0	4.0

Intersection Summary	
HCM 6th Ctrl Delay	40.5
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

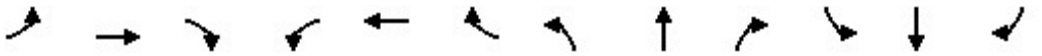
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	966	264	165	835	189	156
Future Volume (veh/h)	966	264	165	835	189	156
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1050	287	179	908	205	170
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1617	693	214	2213	859	394
Arrive On Green	0.46	0.46	0.12	0.62	0.25	0.25
Sat Flow, veh/h	3647	1524	1781	3647	3456	1585
Grp Volume(v), veh/h	1050	287	179	908	205	170
Grp Sat Flow(s),veh/h/ln	1777	1524	1781	1777	1728	1585
Q Serve(g_s), s	21.1	11.7	9.1	12.0	4.4	8.4
Cycle Q Clear(g_c), s	21.1	11.7	9.1	12.0	4.4	8.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1617	693	214	2213	859	394
V/C Ratio(X)	0.65	0.41	0.84	0.41	0.24	0.43
Avail Cap(c_a), veh/h	1617	693	358	2546	859	394
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	19.5	16.9	39.8	8.8	27.8	29.3
Incr Delay (d2), s/veh	2.0	1.8	3.3	0.2	0.7	3.4
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	4.3	4.1	4.2	1.9	3.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.5	18.8	43.1	9.1	28.4	32.7
LnGrp LOS	C	B	D	A	C	C
Approach Vol, veh/h	1337			1087	375	
Approach Delay, s/veh	20.9			14.7	30.4	
Approach LOS	C			B	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	15.5	49.0				64.5	28.0
Change Period (Y+Rc), s	4.4	6.9				* 6.9	5.0
Max Green Setting (Gmax), s	18.6	42.1				* 66	23.0
Max Q Clear Time (g_c+I1), s	11.1	23.1				14.0	10.4
Green Ext Time (p_c), s	0.1	11.5				15.8	0.9

Intersection Summary	
HCM 6th Ctrl Delay	19.8
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1730	210	180	1690	10	460	30	70	10	20	60
Future Volume (veh/h)	40	1730	210	180	1690	10	460	30	70	10	20	60
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		0.96	1.00		0.96	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	1922	233	200	1878	11	535	0	78	11	22	67
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	57	2423	735	223	2974	17	670	0	285	37	74	85
Arrive On Green	0.03	0.47	0.47	0.13	0.57	0.57	0.19	0.00	0.19	0.06	0.06	0.06
Sat Flow, veh/h	1781	5106	1549	1781	5237	31	3563	0	1516	613	1226	1413
Grp Volume(v), veh/h	44	1922	233	200	1221	668	535	0	78	33	0	67
Grp Sat Flow(s),veh/h/ln	1781	1702	1549	1781	1702	1864	1781	0	1516	1840	0	1413
Q Serve(g_s), s	3.4	44.4	13.0	15.5	33.8	33.8	20.1	0.0	6.2	2.4	0.0	6.6
Cycle Q Clear(g_c), s	3.4	44.4	13.0	15.5	33.8	33.8	20.1	0.0	6.2	2.4	0.0	6.6
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.33		1.00
Lane Grp Cap(c), veh/h	57	2423	735	223	1933	1058	670	0	285	110	0	85
V/C Ratio(X)	0.78	0.79	0.32	0.90	0.63	0.63	0.80	0.00	0.27	0.30	0.00	0.79
Avail Cap(c_a), veh/h	88	2423	735	234	1933	1058	942	0	401	133	0	102
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.3	31.0	22.7	60.4	20.4	20.4	54.3	0.0	48.6	63.0	0.0	64.9
Incr Delay (d2), s/veh	8.4	2.8	1.1	31.0	1.6	2.9	2.1	0.0	0.2	0.6	0.0	23.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	18.6	5.0	8.9	13.7	15.3	9.2	0.0	2.4	1.1	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.7	33.8	23.9	91.3	22.0	23.2	56.4	0.0	48.8	63.5	0.0	88.6
LnGrp LOS	E	C	C	F	C	C	E	A	D	E	A	F
Approach Vol, veh/h		2199			2089			613			100	
Approach Delay, s/veh		33.5			29.0			55.5			80.3	
Approach LOS		C			C			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.9	72.4		13.3	8.9	85.5		32.3				
Change Period (Y+Rc), s	4.4	6.0		4.9	4.4	* 6		6.0				
Max Green Setting (Gmax), s	18.4	53.2		10.1	6.9	* 65		37.0				
Max Q Clear Time (g_c+I1), s	17.5	46.4		8.6	5.4	35.8		22.1				
Green Ext Time (p_c), s	0.0	6.3		0.0	0.0	21.5		1.1				

Intersection Summary												
HCM 6th Ctrl Delay			35.3									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



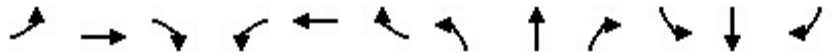
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1690	110	10	1630	10	160	10	30	20	20	10
Future Volume (veh/h)	0	1690	110	10	1630	10	160	10	30	20	20	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.96	1.00		0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1878	122	11	1811	11	178	11	33	22	22	11
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1	2004	129	18	2294	14	765	88	265	52	31	16
Arrive On Green	0.00	0.59	0.59	0.01	0.63	0.63	0.22	0.22	0.22	0.03	0.03	0.03
Sat Flow, veh/h	1781	3385	217	1781	3620	22	3456	399	1198	1781	1076	538
Grp Volume(v), veh/h	0	974	1026	11	888	934	178	0	44	22	0	33
Grp Sat Flow(s),veh/h/ln	1781	1777	1825	1781	1777	1865	1728	0	1597	1781	0	1613
Q Serve(g_s), s	0.0	69.3	73.3	0.9	51.2	51.5	5.9	0.0	3.1	1.7	0.0	2.8
Cycle Q Clear(g_c), s	0.0	69.3	73.3	0.9	51.2	51.5	5.9	0.0	3.1	1.7	0.0	2.8
Prop In Lane	1.00		0.12	1.00		0.01	1.00		0.75	1.00		0.33
Lane Grp Cap(c), veh/h	1	1052	1081	18	1126	1182	765	0	354	52	0	47
V/C Ratio(X)	0.00	0.93	0.95	0.62	0.79	0.79	0.23	0.00	0.12	0.42	0.00	0.70
Avail Cap(c_a), veh/h	51	1052	1081	51	1126	1182	765	0	354	52	0	47
HCM Platoon Ratio	1.00	1.00	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	1.00	0.60	0.60	0.60	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	25.8	26.6	69.0	18.8	18.8	44.7	0.0	43.6	66.8	0.0	67.3
Incr Delay (d2), s/veh	0.0	14.8	17.6	7.7	3.5	3.3	0.7	0.0	0.7	23.1	0.0	60.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	32.3	35.6	0.4	21.2	22.3	2.6	0.0	1.3	1.1	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	40.6	44.2	76.7	22.2	22.2	45.4	0.0	44.4	89.9	0.0	128.2
LnGrp LOS	A	D	D	E	C	C	D	A	D	F	A	F
Approach Vol, veh/h		2000			1833			222			55	
Approach Delay, s/veh		42.4			22.5			45.2			112.9	
Approach LOS		D			C			D			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.8	88.9		9.0	0.0	94.7		36.3
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		5.3
Max Green Setting (Gmax), s	4.6	* 81		4.1	4.0	80.3		31.0
Max Q Clear Time (g_c+I1), s	2.9	75.3		4.8	0.0	53.5		7.9
Green Ext Time (p_c), s	0.0	5.2		0.0	0.0	24.1		0.5

Intersection Summary	
HCM 6th Ctrl Delay	34.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1660	30	30	1450	70	50	50	30	210	30	140
Future Volume (veh/h)	40	1660	30	30	1450	70	50	50	30	210	30	140
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		0.97	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	1930	35	35	1686	81	58	58	35	244	35	163
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	61	2198	947	45	2167	933	212	263	159	311	68	318
Arrive On Green	0.03	0.62	0.62	0.03	0.61	0.61	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1781	3554	1531	1781	3554	1531	1178	1077	650	1291	280	1303
Grp Volume(v), veh/h	47	1930	35	35	1686	81	58	0	93	244	0	198
Grp Sat Flow(s),veh/h/ln	1781	1777	1531	1781	1777	1531	1178	0	1727	1291	0	1583
Q Serve(g_s), s	3.7	63.5	1.2	2.7	49.3	3.1	6.3	0.0	6.0	26.1	0.0	15.1
Cycle Q Clear(g_c), s	3.7	63.5	1.2	2.7	49.3	3.1	21.4	0.0	6.0	32.1	0.0	15.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	1.00		0.82
Lane Grp Cap(c), veh/h	61	2198	947	45	2167	933	212	0	422	311	0	387
V/C Ratio(X)	0.78	0.88	0.04	0.78	0.78	0.09	0.27	0.00	0.22	0.78	0.00	0.51
Avail Cap(c_a), veh/h	88	2198	947	71	2167	933	219	0	433	316	0	392
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.26	0.26	0.26	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.1	22.3	10.4	67.9	20.3	11.3	54.9	0.0	42.3	55.1	0.0	45.7
Incr Delay (d2), s/veh	3.8	1.5	0.0	10.4	2.8	0.2	0.3	0.0	0.1	11.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	25.7	0.4	1.4	20.6	1.1	1.9	0.0	2.6	9.4	0.0	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.9	23.8	10.4	78.2	23.1	11.4	55.2	0.0	42.4	66.1	0.0	46.1
LnGrp LOS	E	C	B	E	C	B	E	A	D	E	A	D
Approach Vol, veh/h		2012			1802			151			442	
Approach Delay, s/veh		24.7			23.7			47.3			57.1	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.9	92.6		39.5	9.2	91.4		39.5
Change Period (Y+Rc), s	4.4	* 6		5.3	4.4	6.0		* 5.3
Max Green Setting (Gmax), s	5.6	* 84		34.7	6.9	82.7		* 35
Max Q Clear Time (g_c+I1), s	14.7	65.5		34.1	5.7	51.3		23.4
Green Ext Time (p_c), s	0.0	17.7		0.1	0.0	26.7		0.3

Intersection Summary	
HCM 6th Ctrl Delay	28.3
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	30	100	10	30	50
Future Vol, veh/h	20	30	100	10	30	50
Conflicting Peds, #/hr	10	10	0	12	12	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	36	120	12	36	60

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	280	148	0	0	144	0
Stage 1	138	-	-	-	-	-
Stage 2	142	-	-	-	-	-
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	710	899	-	-	1438	-
Stage 1	889	-	-	-	-	-
Stage 2	885	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	677	880	-	-	1422	-
Mov Cap-2 Maneuver	677	-	-	-	-	-
Stage 1	879	-	-	-	-	-
Stage 2	854	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	2.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	786	1422	-
HCM Lane V/C Ratio	-	-	0.077	0.025	-
HCM Control Delay (s)	-	-	10	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	70	20	50	40	10	60
Future Vol, veh/h	70	20	50	40	10	60
Conflicting Peds, #/hr	10	0	0	10	10	10
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	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	24	60	48	12	72

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	118	0	-	0	296	104
Stage 1	-	-	-	-	94	-
Stage 2	-	-	-	-	202	-
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	1470	-	-	-	695	951
Stage 1	-	-	-	-	930	-
Stage 2	-	-	-	-	832	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1456	-	-	-	641	933
Mov Cap-2 Maneuver	-	-	-	-	641	-
Stage 1	-	-	-	-	868	-
Stage 2	-	-	-	-	824	-

Approach	EB	WB	SB
HCM Control Delay, s	5.9	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1456	-	-	-	876
HCM Lane V/C Ratio	0.058	-	-	-	0.096
HCM Control Delay (s)	7.6	0	-	-	9.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

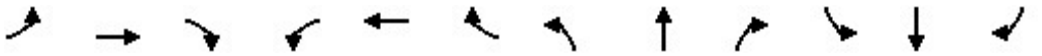
Intersection	
Int Delay, s/veh	4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	50	50	50	80	30
Future Vol, veh/h	20	50	50	50	80	30
Conflicting Peds, #/hr	10	10	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	71	71	71	114	43

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	369	156	167	0	-	0
Stage 1	146	-	-	-	-	-
Stage 2	223	-	-	-	-	-
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	631	890	1411	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	814	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	586	873	1398	-	-	-
Mov Cap-2 Maneuver	586	-	-	-	-	-
Stage 1	826	-	-	-	-	-
Stage 2	806	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	3.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1398	-	766	-	-
HCM Lane V/C Ratio	0.051	-	0.131	-	-
HCM Control Delay (s)	7.7	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.4	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	490	30	680	440	20	40	50	1030	20	110	20
Future Volume (veh/h)	40	490	30	680	440	20	40	50	1030	20	110	20
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		0.97	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	538	33	747	484	22	44	55	1022	22	121	22
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	57	668	41	821	1391	63	57	715	967	30	563	102
Arrive On Green	0.03	0.20	0.20	0.24	0.40	0.40	0.03	0.38	0.38	0.02	0.37	0.37
Sat Flow, veh/h	1781	3393	208	3456	3454	157	1781	1870	1545	1781	1533	279
Grp Volume(v), veh/h	44	281	290	747	248	258	44	55	1022	22	0	143
Grp Sat Flow(s),veh/h/ln	1781	1777	1823	1728	1777	1834	1781	1870	1545	1781	0	1811
Q Serve(g_s), s	3.1	19.4	19.4	26.9	12.4	12.5	3.1	2.4	49.0	1.6	0.0	6.9
Cycle Q Clear(g_c), s	3.1	19.4	19.4	26.9	12.4	12.5	3.1	2.4	49.0	1.6	0.0	6.9
Prop In Lane	1.00		0.11	1.00		0.09	1.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	57	350	359	821	716	739	57	715	967	30	0	666
V/C Ratio(X)	0.78	0.80	0.81	0.91	0.35	0.35	0.78	0.08	1.06	0.73	0.00	0.21
Avail Cap(c_a), veh/h	106	388	398	1338	984	1016	67	715	967	88	0	666
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	61.6	49.1	49.1	47.5	26.6	26.6	61.6	25.2	24.6	62.7	0.0	27.8
Incr Delay (d2), s/veh	8.2	11.8	11.9	3.8	0.5	0.4	31.6	0.2	45.1	11.7	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	9.7	10.0	12.0	5.4	5.6	1.9	1.1	39.4	0.8	0.0	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.8	60.9	61.0	51.3	27.0	27.0	93.2	25.4	69.7	74.4	0.0	28.6
LnGrp LOS	E	E	E	D	C	C	F	C	F	E	A	C
Approach Vol, veh/h		615			1253			1121			165	
Approach Delay, s/veh		61.6			41.5			68.4			34.7	
Approach LOS		E			D			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.6	54.7	34.8	32.0	8.5	52.8	8.5	58.4
Change Period (Y+Rc), s	4.4	5.7	4.4	6.8	4.4	* 5.7	4.4	* 6.8
Max Green Setting (Gmax), s	6.3	44.8	49.6	28.0	4.8	* 47	7.6	* 71
Max Q Clear Time (g_c+I1), s	3.6	51.0	28.9	21.4	5.1	8.9	5.1	14.5
Green Ext Time (p_c), s	0.0	0.0	1.5	2.6	0.0	1.1	0.0	5.7

Intersection Summary	
HCM 6th Ctrl Delay	54.6
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



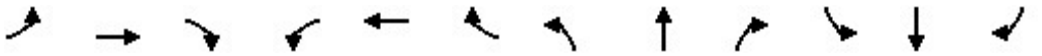
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1340	210	80	820	290	210
Future Volume (veh/h)	1340	210	80	820	290	210
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1411	221	84	863	305	221
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1779	764	108	2160	918	421
Arrive On Green	0.50	0.50	0.06	0.61	0.27	0.27
Sat Flow, veh/h	3647	1526	1781	3647	3456	1585
Grp Volume(v), veh/h	1411	221	84	863	305	221
Grp Sat Flow(s),veh/h/ln	1777	1526	1781	1777	1728	1585
Q Serve(g_s), s	30.9	8.0	4.4	11.8	6.7	11.2
Cycle Q Clear(g_c), s	30.9	8.0	4.4	11.8	6.7	11.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1779	764	108	2160	918	421
V/C Ratio(X)	0.79	0.29	0.78	0.40	0.33	0.52
Avail Cap(c_a), veh/h	1779	764	220	2428	918	421
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	19.5	13.7	43.6	9.6	27.8	29.5
Incr Delay (d2), s/veh	3.7	1.0	4.5	0.2	1.0	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.8	2.8	2.0	4.3	2.8	4.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.2	14.7	48.1	9.8	28.8	34.1
LnGrp LOS	C	B	D	A	C	C
Approach Vol, veh/h	1632			947	526	
Approach Delay, s/veh	22.0			13.2	31.0	
Approach LOS	C			B	C	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.1	54.0			64.1	30.0
Change Period (Y+Rc), s	4.4	6.9			* 6.9	5.0
Max Green Setting (Gmax), s	1.6	47.1			* 64	25.0
Max Q Clear Time (g_c+I1), s	6.4	32.9			13.8	13.2
Green Ext Time (p_c), s	0.0	11.1			14.6	1.3

Intersection Summary		
HCM 6th Ctrl Delay	20.9	
HCM 6th LOS	C	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	1390	240	280	1790	10	320	30	180	10	30	50
Future Volume (veh/h)	110	1390	240	280	1790	10	320	30	180	10	30	50
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		0.96	1.00		0.96	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	124	1562	270	315	2011	11	384	0	202	11	34	56
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	2185	662	315	2799	15	626	0	267	24	75	75
Arrive On Green	0.07	0.43	0.43	0.18	0.53	0.53	0.18	0.00	0.18	0.05	0.05	0.05
Sat Flow, veh/h	1781	5106	1547	1781	5239	29	3563	0	1517	452	1396	1411
Grp Volume(v), veh/h	124	1562	270	315	1306	716	384	0	202	45	0	56
Grp Sat Flow(s),veh/h/ln	1781	1702	1547	1781	1702	1864	1781	0	1517	1848	0	1411
Q Serve(g_s), s	8.9	32.3	15.5	22.6	37.1	37.2	12.7	0.0	16.2	3.0	0.0	5.0
Cycle Q Clear(g_c), s	8.9	32.3	15.5	22.6	37.1	37.2	12.7	0.0	16.2	3.0	0.0	5.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.24		1.00
Lane Grp Cap(c), veh/h	125	2185	662	315	1818	996	626	0	267	99	0	75
V/C Ratio(X)	0.99	0.71	0.41	1.00	0.72	0.72	0.61	0.00	0.76	0.46	0.00	0.74
Avail Cap(c_a), veh/h	125	2185	662	315	1818	996	1030	0	439	117	0	89
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.5	30.2	25.4	52.7	22.5	22.5	48.7	0.0	50.2	58.8	0.0	59.7
Incr Delay (d2), s/veh	77.1	2.0	1.9	51.1	2.5	4.5	0.4	0.0	1.7	1.2	0.0	18.7
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	6.7	13.5	6.0	14.5	15.1	17.1	5.7	0.0	6.3	1.5	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	136.5	32.2	27.2	103.8	25.0	27.0	49.1	0.0	51.8	60.0	0.0	78.4
LnGrp LOS	F	C	C	F	C	C	D	A	D	E	A	E
Approach Vol, veh/h		1956			2337			586			101	
Approach Delay, s/veh		38.1			36.3			50.0			70.2	
Approach LOS		D			D			D			E	

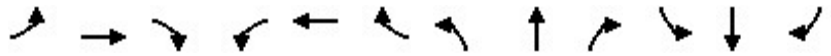
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	27.0	60.8		11.7	13.4	74.4		28.5				
Change Period (Y+Rc), s	4.4	6.0		4.9	4.4	* 6		6.0				
Max Green Setting (Gmax), s	22.6	39.0		8.1	9.0	* 53		37.0				
Max Q Clear Time (g_c+I1), s	24.6	34.3		7.0	10.9	39.2		18.2				
Green Ext Time (p_c), s	0.0	4.2		0.0	0.0	12.0		1.1				

Intersection Summary		
HCM 6th Ctrl Delay		39.3
HCM 6th LOS		D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



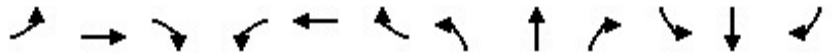
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1300	190	40	1890	30	130	10	50	30	10	10
Future Volume (veh/h)	30	1300	190	40	1890	30	130	10	50	30	10	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.97	1.00		0.84
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	1354	198	42	1969	31	135	10	52	31	10	10
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	39	1653	239	54	1934	30	840	62	322	60	26	26
Arrive On Green	0.02	0.53	0.53	0.03	0.54	0.54	0.24	0.24	0.24	0.03	0.03	0.03
Sat Flow, veh/h	1781	3105	450	1781	3578	56	3456	255	1324	1781	780	780
Grp Volume(v), veh/h	31	769	783	42	974	1026	135	0	62	31	0	20
Grp Sat Flow(s),veh/h/ln	1781	1777	1778	1781	1777	1858	1728	0	1579	1781	0	1560
Q Serve(g_s), s	2.2	45.7	47.1	3.0	69.2	69.2	3.9	0.0	4.0	2.2	0.0	1.6
Cycle Q Clear(g_c), s	2.2	45.7	47.1	3.0	69.2	69.2	3.9	0.0	4.0	2.2	0.0	1.6
Prop In Lane	1.00		0.25	1.00		0.03	1.00		0.84	1.00		0.50
Lane Grp Cap(c), veh/h	39	946	946	54	960	1004	840	0	384	60	0	52
V/C Ratio(X)	0.79	0.81	0.83	0.78	1.01	1.02	0.16	0.00	0.16	0.52	0.00	0.38
Avail Cap(c_a), veh/h	58	946	946	92	960	1004	840	0	384	60	0	52
HCM Platoon Ratio	1.00	1.00	1.00	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	0.35	0.35	0.35	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	62.3	24.7	25.0	61.6	29.4	29.4	38.2	0.0	38.2	60.8	0.0	60.5
Incr Delay (d2), s/veh	19.6	7.6	8.3	3.2	20.9	22.5	0.4	0.0	0.9	28.6	0.0	19.8
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	1.2	20.6	21.4	1.4	33.7	35.7	1.7	0.0	1.6	1.5	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.9	32.3	33.3	64.8	50.3	51.9	38.6	0.0	39.1	89.4	0.0	80.3
LnGrp LOS	F	C	C	E	F	F	D	A	D	F	A	F
Approach Vol, veh/h		1583			2042			197			51	
Approach Delay, s/veh		33.8			51.4			38.7			85.8	
Approach LOS		C			D			D			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.3	74.1		9.2	7.2	75.2		36.4
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		5.3
Max Green Setting (Gmax), s	6.6	* 66		4.3	4.2	67.8		31.1
Max Q Clear Time (g_c+I1), s	5.0	49.1		4.2	4.2	71.2		6.0
Green Ext Time (p_c), s	0.0	14.4		0.0	0.0	0.0		0.5

Intersection Summary	
HCM 6th Ctrl Delay	44.0
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	1210	60	90	1770	250	50	30	50	180	50	70
Future Volume (veh/h)	120	1210	60	90	1770	250	50	30	50	180	50	70
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	129	1301	65	97	1903	269	54	32	54	194	54	75
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	2121	913	120	2094	902	239	130	220	276	148	205
Arrive On Green	0.08	0.60	0.60	0.07	0.59	0.59	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1781	3554	1531	1781	3554	1530	1249	610	1030	1297	693	962
Grp Volume(v), veh/h	129	1301	65	97	1903	269	54	0	86	194	0	129
Grp Sat Flow(s),veh/h/ln	1781	1777	1531	1781	1777	1530	1249	0	1640	1297	0	1655
Q Serve(g_s), s	9.2	29.8	2.3	6.9	60.6	11.2	4.9	0.0	5.6	18.7	0.0	8.5
Cycle Q Clear(g_c), s	9.2	29.8	2.3	6.9	60.6	11.2	13.5	0.0	5.6	24.3	0.0	8.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.63	1.00		0.58
Lane Grp Cap(c), veh/h	134	2121	913	120	2094	902	239	0	350	276	0	353
V/C Ratio(X)	0.97	0.61	0.07	0.81	0.91	0.30	0.23	0.00	0.25	0.70	0.00	0.37
Avail Cap(c_a), veh/h	134	2121	913	177	2094	902	263	0	380	297	0	379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.44	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.0	16.4	10.9	58.9	23.3	13.1	48.7	0.0	41.8	51.9	0.0	43.0
Incr Delay (d2), s/veh	42.0	0.6	0.1	9.7	7.3	0.8	0.2	0.0	0.1	5.4	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	5.7	11.9	0.8	3.4	26.1	4.0	1.6	0.0	2.3	6.5	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.0	17.0	10.9	68.5	30.5	14.0	48.9	0.0	41.9	57.3	0.0	43.2
LnGrp LOS	F	B	B	E	C	B	D	A	D	E	A	D
Approach Vol, veh/h		1495			2269			140			323	
Approach Delay, s/veh		24.0			30.2			44.6			51.6	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	82.4		32.6	14.0	81.4		32.6
Change Period (Y+Rc), s	4.4	* 6		5.3	4.4	6.0		* 5.3
Max Green Setting (Gmax), s	12.7	* 71		29.3	9.6	73.4		* 30
Max Q Clear Time (g_c+I1), s	8.9	31.8		26.3	11.2	62.6		15.5
Green Ext Time (p_c), s	0.0	25.6		0.3	0.0	10.4		0.3

Intersection Summary	
HCM 6th Ctrl Delay	30.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	40	70	20	40	110
Future Vol, veh/h	20	40	70	20	40	110
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	48	84	24	48	133

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	345	116	0	0	118	0
Stage 1	106	-	-	-	-	-
Stage 2	239	-	-	-	-	-
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	652	936	-	-	1470	-
Stage 1	918	-	-	-	-	-
Stage 2	801	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	616	918	-	-	1456	-
Mov Cap-2 Maneuver	616	-	-	-	-	-
Stage 1	909	-	-	-	-	-
Stage 2	765	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	789	1456	-
HCM Lane V/C Ratio	-	-	0.092	0.033	-
HCM Control Delay (s)	-	-	10	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	70	50	30	20	50	80
Future Vol, veh/h	70	50	30	20	50	80
Conflicting Peds, #/hr	10	0	0	10	10	10
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	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	60	36	24	60	96

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	70	0	-	0	296	68
Stage 1	-	-	-	-	58	-
Stage 2	-	-	-	-	238	-
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	1531	-	-	-	695	995
Stage 1	-	-	-	-	965	-
Stage 2	-	-	-	-	802	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1516	-	-	-	642	976
Mov Cap-2 Maneuver	-	-	-	-	642	-
Stage 1	-	-	-	-	901	-
Stage 2	-	-	-	-	794	-

Approach	EB	WB	SB
HCM Control Delay, s	4.4	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1516	-	-	-	813
HCM Lane V/C Ratio	0.056	-	-	-	0.193
HCM Control Delay (s)	7.5	0	-	-	10.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7

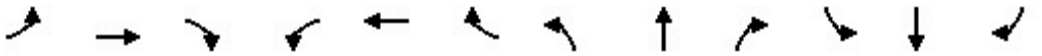
Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	80	90	100	50	50
Future Vol, veh/h	30	80	90	100	50	50
Conflicting Peds, #/hr	10	10	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	91	102	114	57	57

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	424	106	124	0	-	0
Stage 1	96	-	-	-	-	-
Stage 2	328	-	-	-	-	-
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	587	948	1463	-	-	-
Stage 1	928	-	-	-	-	-
Stage 2	730	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	532	930	1449	-	-	-
Mov Cap-2 Maneuver	532	-	-	-	-	-
Stage 1	850	-	-	-	-	-
Stage 2	723	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	3.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1449	-	772	-	-
HCM Lane V/C Ratio	0.071	-	0.162	-	-
HCM Control Delay (s)	7.7	0	10.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.6	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	550	40	830	430	30	60	100	1010	30	50	40
Future Volume (veh/h)	70	550	40	830	430	30	60	100	1010	30	50	40
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		0.96	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	591	43	892	462	32	65	108	978	32	54	43
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	96	745	54	981	1520	105	83	529	885	40	246	196
Arrive On Green	0.05	0.22	0.22	0.28	0.45	0.45	0.05	0.28	0.28	0.02	0.26	0.26
Sat Flow, veh/h	1781	3350	243	3456	3362	232	1781	1870	1537	1781	949	756
Grp Volume(v), veh/h	75	313	321	892	243	251	65	108	978	32	0	97
Grp Sat Flow(s),veh/h/ln	1781	1777	1816	1728	1777	1817	1781	1870	1537	1781	0	1705
Q Serve(g_s), s	4.7	18.8	18.9	28.2	9.8	9.9	4.1	5.0	32.0	2.0	0.0	5.1
Cycle Q Clear(g_c), s	4.7	18.8	18.9	28.2	9.8	9.9	4.1	5.0	32.0	2.0	0.0	5.1
Prop In Lane	1.00		0.13	1.00		0.13	1.00		1.00	1.00		0.44
Lane Grp Cap(c), veh/h	96	395	404	981	803	822	83	529	885	40	0	441
V/C Ratio(X)	0.78	0.79	0.80	0.91	0.30	0.31	0.78	0.20	1.11	0.80	0.00	0.22
Avail Cap(c_a), veh/h	230	446	456	1883	1200	1228	102	529	885	106	0	498
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	52.8	41.5	41.5	39.1	19.7	19.7	53.3	30.8	24.7	55.0	0.0	32.9
Incr Delay (d2), s/veh	5.1	9.6	9.6	1.4	0.3	0.3	20.7	0.2	63.4	12.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	9.2	9.5	12.0	4.1	4.2	2.3	2.3	37.6	1.0	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.9	51.1	51.1	40.5	20.0	20.0	74.0	31.1	88.1	67.4	0.0	33.3
LnGrp LOS	E	D	D	D	C	C	E	C	F	E	A	C
Approach Vol, veh/h		709			1386			1151			129	
Approach Delay, s/veh		51.8			33.2			82.0			41.7	
Approach LOS		D			C			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	37.7	36.5	31.9	9.7	35.0	10.5	57.9
Change Period (Y+Rc), s	4.4	5.7	4.4	6.8	4.4	* 5.7	4.4	* 6.8
Max Green Setting (Gmax), s	6.7	32.0	61.6	28.4	6.5	* 33	14.6	* 76
Max Q Clear Time (g_c+I1), s	4.0	34.0	30.2	20.9	6.1	7.1	6.7	11.9
Green Ext Time (p_c), s	0.0	0.0	1.9	3.2	0.0	0.6	0.0	5.6

Intersection Summary	
HCM 6th Ctrl Delay	54.1
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

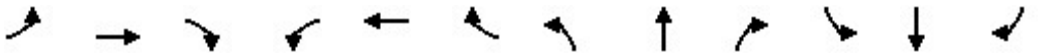
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1310	280	180	1130	200	170
Future Volume (veh/h)	1310	280	180	1130	200	170
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1424	304	196	1228	217	185
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1599	686	231	2228	850	390
Arrive On Green	0.45	0.45	0.13	0.63	0.25	0.25
Sat Flow, veh/h	3647	1523	1781	3647	3456	1585
Grp Volume(v), veh/h	1424	304	196	1228	217	185
Grp Sat Flow(s),veh/h/ln	1777	1523	1781	1777	1728	1585
Q Serve(g_s), s	34.4	12.8	10.1	18.4	4.7	9.3
Cycle Q Clear(g_c), s	34.4	12.8	10.1	18.4	4.7	9.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1599	686	231	2228	850	390
V/C Ratio(X)	0.89	0.44	0.85	0.55	0.26	0.47
Avail Cap(c_a), veh/h	1599	686	354	2519	850	390
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	23.6	17.7	39.8	9.9	28.4	30.1
Incr Delay (d2), s/veh	7.9	2.1	7.0	0.4	0.7	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.3	4.7	4.8	6.5	2.0	3.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.5	19.7	46.8	10.4	29.1	34.2
LnGrp LOS	C	B	D	B	C	C
Approach Vol, veh/h	1728			1424	402	
Approach Delay, s/veh	29.4			15.4	31.5	
Approach LOS	C			B	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	16.5	49.0				65.5	28.0
Change Period (Y+Rc), s	4.4	6.9				* 6.9	5.0
Max Green Setting (Gmax), s	18.6	42.1				* 66	23.0
Max Q Clear Time (g_c+I1), s	12.1	36.4				20.4	11.3
Green Ext Time (p_c), s	0.1	5.0				23.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	24.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1732	210	180	1698	10	460	30	70	10	20	60
Future Volume (veh/h)	40	1732	210	180	1698	10	460	30	70	10	20	60
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		0.96	1.00		0.96	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	1924	233	200	1887	11	535	0	78	11	22	67
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	57	2423	735	223	2974	17	670	0	285	37	74	85
Arrive On Green	0.03	0.47	0.47	0.13	0.57	0.57	0.19	0.00	0.19	0.06	0.06	0.06
Sat Flow, veh/h	1781	5106	1549	1781	5237	31	3563	0	1516	613	1226	1413
Grp Volume(v), veh/h	44	1924	233	200	1226	672	535	0	78	33	0	67
Grp Sat Flow(s),veh/h/ln	1781	1702	1549	1781	1702	1864	1781	0	1516	1840	0	1413
Q Serve(g_s), s	3.4	44.5	13.0	15.5	34.1	34.1	20.1	0.0	6.2	2.4	0.0	6.6
Cycle Q Clear(g_c), s	3.4	44.5	13.0	15.5	34.1	34.1	20.1	0.0	6.2	2.4	0.0	6.6
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.33		1.00
Lane Grp Cap(c), veh/h	57	2423	735	223	1933	1058	670	0	285	110	0	85
V/C Ratio(X)	0.78	0.79	0.32	0.90	0.63	0.63	0.80	0.00	0.27	0.30	0.00	0.79
Avail Cap(c_a), veh/h	88	2423	735	234	1933	1058	942	0	401	133	0	102
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.3	31.0	22.7	60.4	20.4	20.4	54.3	0.0	48.6	63.0	0.0	64.9
Incr Delay (d2), s/veh	8.4	2.8	1.1	31.0	1.6	2.9	2.1	0.0	0.2	0.6	0.0	23.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	18.7	5.0	8.9	13.8	15.5	9.2	0.0	2.4	1.1	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.7	33.8	23.9	91.3	22.0	23.3	56.4	0.0	48.8	63.5	0.0	88.6
LnGrp LOS	E	C	C	F	C	C	E	A	D	E	A	F
Approach Vol, veh/h		2201			2098			613			100	
Approach Delay, s/veh		33.6			29.1			55.5			80.3	
Approach LOS		C			C			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.9	72.4		13.3	8.9	85.5		32.3				
Change Period (Y+Rc), s	4.4	6.0		4.9	4.4	* 6		6.0				
Max Green Setting (Gmax), s	18.4	53.2		10.1	6.9	* 65		37.0				
Max Q Clear Time (g_c+I1), s	17.5	46.5		8.6	5.4	36.1		22.1				
Green Ext Time (p_c), s	0.0	6.2		0.0	0.0	21.4		1.1				

Intersection Summary			
HCM 6th Ctrl Delay		35.3	
HCM 6th LOS		D	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



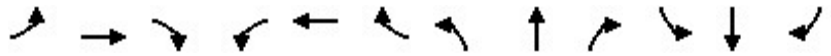
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1690	112	10	1630	10	168	10	30	20	20	10
Future Volume (veh/h)	0	1690	112	10	1630	10	168	10	30	20	20	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.96	1.00		0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1878	124	11	1811	11	187	11	33	22	22	11
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1	2002	130	18	2294	14	765	88	265	52	31	16
Arrive On Green	0.00	0.59	0.59	0.01	0.63	0.63	0.22	0.22	0.22	0.03	0.03	0.03
Sat Flow, veh/h	1781	3381	220	1781	3620	22	3456	399	1198	1781	1076	538
Grp Volume(v), veh/h	0	975	1027	11	888	934	187	0	44	22	0	33
Grp Sat Flow(s),veh/h/ln	1781	1777	1824	1781	1777	1865	1728	0	1597	1781	0	1613
Q Serve(g_s), s	0.0	69.5	73.5	0.9	51.2	51.5	6.2	0.0	3.1	1.7	0.0	2.8
Cycle Q Clear(g_c), s	0.0	69.5	73.5	0.9	51.2	51.5	6.2	0.0	3.1	1.7	0.0	2.8
Prop In Lane	1.00		0.12	1.00		0.01	1.00		0.75	1.00		0.33
Lane Grp Cap(c), veh/h	1	1052	1080	18	1126	1182	765	0	354	52	0	47
V/C Ratio(X)	0.00	0.93	0.95	0.62	0.79	0.79	0.24	0.00	0.12	0.42	0.00	0.70
Avail Cap(c_a), veh/h	51	1052	1080	51	1126	1182	765	0	354	52	0	47
HCM Platoon Ratio	1.00	1.00	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	1.00	0.59	0.59	0.59	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	25.8	26.6	69.0	18.8	18.8	44.9	0.0	43.6	66.8	0.0	67.3
Incr Delay (d2), s/veh	0.0	14.9	17.8	7.5	3.4	3.3	0.8	0.0	0.7	23.1	0.0	60.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	32.4	35.8	0.4	21.2	22.3	2.8	0.0	1.3	1.1	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	40.7	44.4	76.6	22.2	22.1	45.6	0.0	44.4	89.9	0.0	128.2
LnGrp LOS	A	D	D	E	C	C	D	A	D	F	A	F
Approach Vol, veh/h		2002			1833			231			55	
Approach Delay, s/veh		42.6			22.5			45.4			112.9	
Approach LOS		D			C			D			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.8	88.9		9.0	0.0	94.7		36.3
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		5.3
Max Green Setting (Gmax), s	4.6	* 81		4.1	4.0	80.3		31.0
Max Q Clear Time (g_c+I1), s	2.9	75.5		4.8	0.0	53.5		8.2
Green Ext Time (p_c), s	0.0	5.0		0.0	0.0	24.1		0.5

Intersection Summary	
HCM 6th Ctrl Delay	34.7
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1660	30	34	1450	70	50	62	43	210	33	140
Future Volume (veh/h)	40	1660	30	34	1450	70	50	62	43	210	33	140
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		0.97	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	1930	35	40	1686	81	58	72	50	244	38	163
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	61	2172	936	51	2154	928	214	251	174	291	74	319
Arrive On Green	0.03	0.61	0.61	0.03	0.61	0.61	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1781	3554	1531	1781	3554	1531	1175	1013	703	1259	300	1287
Grp Volume(v), veh/h	47	1930	35	40	1686	81	58	0	122	244	0	201
Grp Sat Flow(s),veh/h/ln	1781	1777	1531	1781	1777	1531	1175	0	1716	1259	0	1587
Q Serve(g_s), s	3.7	64.7	1.3	3.1	49.8	3.1	6.3	0.0	8.1	26.6	0.0	15.3
Cycle Q Clear(g_c), s	3.7	64.7	1.3	3.1	49.8	3.1	21.5	0.0	8.1	34.7	0.0	15.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.41	1.00		0.81
Lane Grp Cap(c), veh/h	61	2172	936	51	2154	928	214	0	425	291	0	393
V/C Ratio(X)	0.78	0.89	0.04	0.78	0.78	0.09	0.27	0.00	0.29	0.84	0.00	0.51
Avail Cap(c_a), veh/h	88	2172	936	71	2154	928	218	0	430	291	0	393
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.25	0.25	0.25	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.1	23.2	10.8	67.5	20.7	11.5	54.6	0.0	42.6	56.9	0.0	45.3
Incr Delay (d2), s/veh	3.6	1.6	0.0	19.7	2.9	0.2	0.2	0.0	0.1	18.1	0.0	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	1.7	26.4	0.4	1.7	20.8	1.1	1.9	0.0	3.5	10.1	0.0	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.7	24.8	10.9	87.3	23.6	11.7	54.9	0.0	42.8	75.0	0.0	45.8
LnGrp LOS	E	C	B	F	C	B	D	A	D	E	A	D
Approach Vol, veh/h		2012			1807			180			445	
Approach Delay, s/veh		25.6			24.5			46.7			61.8	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.4	91.6		40.0	9.2	90.8		40.0
Change Period (Y+Rc), s	4.4	* 6		5.3	4.4	6.0		* 5.3
Max Green Setting (Gmax), s	5.6	* 84		34.7	6.9	82.7		* 35
Max Q Clear Time (g_c+I1), s	5.7	66.7		36.7	5.7	51.8		23.5
Green Ext Time (p_c), s	0.0	16.6		0.0	0.0	26.3		0.4

Intersection Summary	
HCM 6th Ctrl Delay	29.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	32	123	10	31	56
Future Vol, veh/h	20	32	123	10	31	56
Conflicting Peds, #/hr	10	10	0	12	12	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	39	148	12	37	67

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	317	176	0	0	172	0
Stage 1	166	-	-	-	-	-
Stage 2	151	-	-	-	-	-
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	676	867	-	-	1405	-
Stage 1	863	-	-	-	-	-
Stage 2	877	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	644	849	-	-	1389	-
Mov Cap-2 Maneuver	644	-	-	-	-	-
Stage 1	854	-	-	-	-	-
Stage 2	845	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	2.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	756	1389	-
HCM Lane V/C Ratio	-	-	0.083	0.027	-
HCM Control Delay (s)	-	-	10.2	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	70	26	74	63	16	60
Future Vol, veh/h	70	26	74	63	16	60
Conflicting Peds, #/hr	10	0	0	10	10	10
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	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	31	89	76	19	72

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	175	0	-	0	346	147
Stage 1	-	-	-	-	137	-
Stage 2	-	-	-	-	209	-
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	1401	-	-	-	651	900
Stage 1	-	-	-	-	890	-
Stage 2	-	-	-	-	826	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1388	-	-	-	598	883
Mov Cap-2 Maneuver	-	-	-	-	598	-
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	818	-

Approach	EB	WB	SB
HCM Control Delay, s	5.7	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1388	-	-	-	802
HCM Lane V/C Ratio	0.061	-	-	-	0.114
HCM Control Delay (s)	7.8	0	-	-	10.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.4

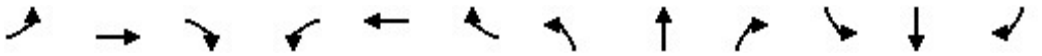
Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	70	55	50	81	30
Future Vol, veh/h	20	70	55	50	81	30
Conflicting Peds, #/hr	10	10	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	100	79	71	116	43

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	387	158	169	0	-	0
Stage 1	148	-	-	-	-	-
Stage 2	239	-	-	-	-	-
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	616	887	1409	-	-	-
Stage 1	880	-	-	-	-	-
Stage 2	801	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	568	870	1396	-	-	-
Mov Cap-2 Maneuver	568	-	-	-	-	-
Stage 1	820	-	-	-	-	-
Stage 2	793	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	4.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1396	-	778	-	-
HCM Lane V/C Ratio	0.056	-	0.165	-	-
HCM Control Delay (s)	7.7	0	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.6	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	490	30	680	440	21	40	54	1030	24	126	21
Future Volume (veh/h)	40	490	30	680	440	21	40	54	1030	24	126	21
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		0.97	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	538	33	747	484	23	44	59	1022	26	138	23
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	57	668	41	821	1388	66	57	712	964	34	572	95
Arrive On Green	0.03	0.20	0.20	0.24	0.40	0.40	0.03	0.38	0.38	0.02	0.37	0.37
Sat Flow, veh/h	1781	3393	208	3456	3446	163	1781	1870	1545	1781	1556	259
Grp Volume(v), veh/h	44	281	290	747	249	258	44	59	1022	26	0	161
Grp Sat Flow(s),veh/h/ln	1781	1777	1823	1728	1777	1833	1781	1870	1545	1781	0	1816
Q Serve(g_s), s	3.1	19.4	19.4	26.9	12.5	12.5	3.1	2.6	48.8	1.9	0.0	7.9
Cycle Q Clear(g_c), s	3.1	19.4	19.4	26.9	12.5	12.5	3.1	2.6	48.8	1.9	0.0	7.9
Prop In Lane	1.00		0.11	1.00		0.09	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	57	350	359	821	716	738	57	712	964	34	0	667
V/C Ratio(X)	0.78	0.80	0.81	0.91	0.35	0.35	0.78	0.08	1.06	0.77	0.00	0.24
Avail Cap(c_a), veh/h	106	388	398	1338	984	1015	67	712	964	88	0	667
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	61.6	49.1	49.1	47.5	26.6	26.6	61.6	25.4	24.7	62.6	0.0	28.1
Incr Delay (d2), s/veh	8.2	11.8	11.9	3.8	0.5	0.4	31.6	0.2	46.2	13.1	0.0	0.9
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	1.6	9.7	10.0	12.0	5.4	5.6	1.9	1.2	39.6	1.0	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.8	60.9	61.0	51.3	27.0	27.1	93.2	25.6	70.9	75.7	0.0	29.0
LnGrp LOS	E	E	E	D	C	C	F	C	F	E	A	C
Approach Vol, veh/h		615			1254			1125			187	
Approach Delay, s/veh		61.6			41.5			69.4			35.5	
Approach LOS		E			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	54.5	34.8	32.0	8.5	52.8	8.5	58.4
Change Period (Y+Rc), s	4.4	5.7	4.4	6.8	4.4	* 5.7	4.4	* 6.8
Max Green Setting (Gmax), s	6.3	44.8	49.6	28.0	4.8	* 47	7.6	* 71
Max Q Clear Time (g_c+I1), s	3.9	50.8	28.9	21.4	5.1	9.9	5.1	14.5
Green Ext Time (p_c), s	0.0	0.0	1.5	2.6	0.0	1.3	0.0	5.7

Intersection Summary	
HCM 6th Ctrl Delay	54.9
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



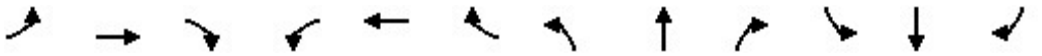
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1343	211	80	821	290	210
Future Volume (veh/h)	1343	211	80	821	290	210
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1414	222	84	864	305	221
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1779	764	108	2160	918	421
Arrive On Green	0.50	0.50	0.06	0.61	0.27	0.27
Sat Flow, veh/h	3647	1526	1781	3647	3456	1585
Grp Volume(v), veh/h	1414	222	84	864	305	221
Grp Sat Flow(s),veh/h/ln	1777	1526	1781	1777	1728	1585
Q Serve(g_s), s	31.1	8.0	4.4	11.9	6.7	11.2
Cycle Q Clear(g_c), s	31.1	8.0	4.4	11.9	6.7	11.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1779	764	108	2160	918	421
V/C Ratio(X)	0.79	0.29	0.78	0.40	0.33	0.52
Avail Cap(c_a), veh/h	1779	764	220	2428	918	421
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	19.5	13.7	43.6	9.6	27.8	29.5
Incr Delay (d2), s/veh	3.8	1.0	4.5	0.2	1.0	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.9	2.8	2.0	4.3	2.8	4.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.3	14.7	48.1	9.8	28.8	34.1
LnGrp LOS	C	B	D	A	C	C
Approach Vol, veh/h	1636			948	526	
Approach Delay, s/veh	22.1			13.2	31.0	
Approach LOS	C			B	C	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.1	54.0			64.1	30.0
Change Period (Y+Rc), s	4.4	6.9			* 6.9	5.0
Max Green Setting (Gmax), s	1.6	47.1			* 64	25.0
Max Q Clear Time (g_c+I1), s	6.4	33.1			13.9	13.2
Green Ext Time (p_c), s	0.0	11.1			14.6	1.3

Intersection Summary		
HCM 6th Ctrl Delay	20.9	
HCM 6th LOS	C	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	1398	240	280	1794	10	320	30	180	10	30	50
Future Volume (veh/h)	110	1398	240	280	1794	10	320	30	180	10	30	50
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		0.96	1.00		0.96	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	124	1571	270	315	2016	11	384	0	202	11	34	56
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	2185	662	315	2799	15	626	0	267	24	75	75
Arrive On Green	0.07	0.43	0.43	0.18	0.53	0.53	0.18	0.00	0.18	0.05	0.05	0.05
Sat Flow, veh/h	1781	5106	1547	1781	5239	29	3563	0	1517	452	1396	1411
Grp Volume(v), veh/h	124	1571	270	315	1310	717	384	0	202	45	0	56
Grp Sat Flow(s),veh/h/ln	1781	1702	1547	1781	1702	1864	1781	0	1517	1848	0	1411
Q Serve(g_s), s	8.9	32.5	15.5	22.6	37.3	37.3	12.7	0.0	16.2	3.0	0.0	5.0
Cycle Q Clear(g_c), s	8.9	32.5	15.5	22.6	37.3	37.3	12.7	0.0	16.2	3.0	0.0	5.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.24		1.00
Lane Grp Cap(c), veh/h	125	2185	662	315	1818	996	626	0	267	99	0	75
V/C Ratio(X)	0.99	0.72	0.41	1.00	0.72	0.72	0.61	0.00	0.76	0.46	0.00	0.74
Avail Cap(c_a), veh/h	125	2185	662	315	1818	996	1030	0	439	117	0	89
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.5	30.3	25.4	52.7	22.6	22.6	48.7	0.0	50.2	58.8	0.0	59.7
Incr Delay (d2), s/veh	77.1	2.1	1.9	51.1	2.5	4.5	0.4	0.0	1.7	1.2	0.0	18.7
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	6.7	13.6	6.0	14.5	15.2	17.2	5.7	0.0	6.3	1.5	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	136.5	32.3	27.2	103.8	25.1	27.1	49.1	0.0	51.8	60.0	0.0	78.4
LnGrp LOS	F	C	C	F	C	C	D	A	D	E	A	E
Approach Vol, veh/h		1965			2342			586			101	
Approach Delay, s/veh		38.2			36.3			50.0			70.2	
Approach LOS		D			D			D			E	

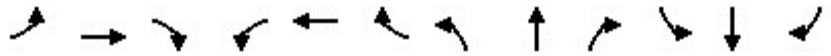
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	27.0	60.8		11.7	13.4	74.4		28.5				
Change Period (Y+Rc), s	4.4	6.0		4.9	4.4	* 6		6.0				
Max Green Setting (Gmax), s	22.6	39.0		8.1	9.0	* 53		37.0				
Max Q Clear Time (g_c+I1), s	24.6	34.5		7.0	10.9	39.3		18.2				
Green Ext Time (p_c), s	0.0	4.0		0.0	0.0	11.9		1.1				

Intersection Summary		
HCM 6th Ctrl Delay		39.3
HCM 6th LOS		D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1300	199	40	1890	30	134	10	50	30	10	10
Future Volume (veh/h)	30	1300	199	40	1890	30	134	10	50	30	10	10
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		0.96	1.00		0.97	1.00		0.85
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	1354	207	42	1969	31	140	10	52	31	10	10
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	39	1639	248	54	1931	30	840	62	322	61	27	27
Arrive On Green	0.02	0.53	0.53	0.03	0.54	0.54	0.24	0.24	0.24	0.03	0.03	0.03
Sat Flow, veh/h	1781	3085	466	1781	3578	56	3456	255	1324	1781	782	782
Grp Volume(v), veh/h	31	774	787	42	974	1026	140	0	62	31	0	20
Grp Sat Flow(s),veh/h/ln	1781	1777	1774	1781	1777	1858	1728	0	1579	1781	0	1563
Q Serve(g_s), s	2.2	46.3	47.8	3.0	69.1	69.1	4.1	0.0	4.0	2.2	0.0	1.6
Cycle Q Clear(g_c), s	2.2	46.3	47.8	3.0	69.1	69.1	4.1	0.0	4.0	2.2	0.0	1.6
Prop In Lane	1.00		0.26	1.00		0.03	1.00		0.84	1.00		0.50
Lane Grp Cap(c), veh/h	39	944	943	54	959	1003	840	0	384	61	0	54
V/C Ratio(X)	0.79	0.82	0.84	0.78	1.02	1.02	0.17	0.00	0.16	0.51	0.00	0.37
Avail Cap(c_a), veh/h	58	944	943	92	959	1003	840	0	384	61	0	54
HCM Platoon Ratio	1.00	1.00	1.00	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	0.35	0.35	0.35	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	62.3	24.9	25.3	61.6	29.5	29.5	38.2	0.0	38.2	60.7	0.0	60.4
Incr Delay (d2), s/veh	19.6	7.9	8.7	3.2	21.3	22.9	0.4	0.0	0.9	26.9	0.0	18.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	20.9	21.8	1.4	33.8	35.8	1.8	0.0	1.6	1.4	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.9	32.8	33.9	64.8	50.8	52.4	38.7	0.0	39.1	87.6	0.0	79.1
LnGrp LOS	F	C	C	E	F	F	D	A	D	F	A	E
Approach Vol, veh/h		1592			2042			202			51	
Approach Delay, s/veh		34.3			51.9			38.8			84.3	
Approach LOS		C			D			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.3	74.0		9.3	7.2	75.1		36.4				
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		5.3				
Max Green Setting (Gmax), s	6.6	* 66		4.4	4.2	67.7		31.1				
Max Q Clear Time (g_c+I1), s	5.0	49.8		4.2	4.2	71.1		6.1				
Green Ext Time (p_c), s	0.0	13.8		0.0	0.0	0.0		0.5				

Intersection Summary	
HCM 6th Ctrl Delay	44.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	1210	60	104	1770	250	50	36	56	180	63	70
Future Volume (veh/h)	120	1210	60	104	1770	250	50	36	56	180	63	70
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	129	1301	65	112	1903	269	54	39	60	194	68	75
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	2069	891	136	2074	893	236	142	218	273	174	192
Arrive On Green	0.08	0.58	0.58	0.08	0.58	0.58	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1781	3554	1530	1781	3554	1530	1234	649	998	1282	796	878
Grp Volume(v), veh/h	129	1301	65	112	1903	269	54	0	99	194	0	143
Grp Sat Flow(s),veh/h/ln	1781	1777	1530	1781	1777	1530	1234	0	1647	1282	0	1674
Q Serve(g_s), s	9.2	30.9	2.4	7.9	61.4	11.4	5.0	0.0	6.4	19.0	0.0	9.3
Cycle Q Clear(g_c), s	9.2	30.9	2.4	7.9	61.4	11.4	14.3	0.0	6.4	25.4	0.0	9.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.61	1.00		0.52
Lane Grp Cap(c), veh/h	134	2069	891	136	2074	893	236	0	360	273	0	366
V/C Ratio(X)	0.97	0.63	0.07	0.82	0.92	0.30	0.23	0.00	0.27	0.71	0.00	0.39
Avail Cap(c_a), veh/h	134	2069	891	177	2074	893	252	0	382	286	0	383
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.43	0.43	0.43	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.0	17.6	11.7	58.3	23.9	13.5	48.8	0.0	41.6	52.1	0.0	42.7
Incr Delay (d2), s/veh	41.4	0.6	0.1	16.6	8.0	0.9	0.2	0.0	0.2	6.4	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	12.5	0.8	4.2	26.7	4.1	1.6	0.0	2.6	6.6	0.0	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	100.5	18.3	11.7	74.9	31.8	14.3	49.0	0.0	41.7	58.5	0.0	43.0
LnGrp LOS	F	B	B	E	C	B	D	A	D	E	A	D
Approach Vol, veh/h		1495			2284			153			337	
Approach Delay, s/veh		25.1			31.9			44.3			51.9	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.2	80.5		33.3	14.0	80.7		33.3
Change Period (Y+Rc), s	4.4	* 6		5.3	4.4	6.0		* 5.3
Max Green Setting (Gmax), s	12.7	* 71		29.3	9.6	73.4		* 30
Max Q Clear Time (g_c+I1), s	11.4	32.9		27.4	11.2	63.4		16.3
Green Ext Time (p_c), s	0.0	25.1		0.2	0.0	9.6		0.3

Intersection Summary	
HCM 6th Ctrl Delay	31.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	41	81	20	42	135
Future Vol, veh/h	20	41	81	20	42	135
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	49	98	24	51	163

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	395	130	0	0	132	0
Stage 1	120	-	-	-	-	-
Stage 2	275	-	-	-	-	-
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	610	920	-	-	1453	-
Stage 1	905	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	575	903	-	-	1439	-
Mov Cap-2 Maneuver	575	-	-	-	-	-
Stage 1	896	-	-	-	-	-
Stage 2	734	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	1.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	761	1439	-
HCM Lane V/C Ratio	-	-	0.097	0.035	-
HCM Control Delay (s)	-	-	10.2	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	70	76	41	31	75	80
Future Vol, veh/h	70	76	41	31	75	80
Conflicting Peds, #/hr	10	0	0	10	10	10
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	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	92	49	37	90	96

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	96	0	-	0	348	88
Stage 1	-	-	-	-	78	-
Stage 2	-	-	-	-	270	-
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	1498	-	-	-	649	970
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	775	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1484	-	-	-	598	952
Mov Cap-2 Maneuver	-	-	-	-	598	-
Stage 1	-	-	-	-	880	-
Stage 2	-	-	-	-	767	-

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1484	-	-	-	740
HCM Lane V/C Ratio	0.057	-	-	-	0.252
HCM Control Delay (s)	7.6	0	-	-	11.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1

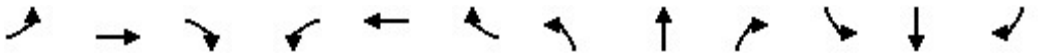
Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	89	112	102	52	50
Future Vol, veh/h	30	89	112	102	52	50
Conflicting Peds, #/hr	10	10	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	101	127	116	59	57

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	478	108	126	0	-	0
Stage 1	98	-	-	-	-	-
Stage 2	380	-	-	-	-	-
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	546	946	1460	-	-	-
Stage 1	926	-	-	-	-	-
Stage 2	691	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	485	928	1446	-	-	-
Mov Cap-2 Maneuver	485	-	-	-	-	-
Stage 1	831	-	-	-	-	-
Stage 2	684	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1446	-	754	-	-
HCM Lane V/C Ratio	0.088	-	0.179	-	-
HCM Control Delay (s)	7.7	0	10.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.7	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	550	40	830	430	34	60	118	1010	32	58	41
Future Volume (veh/h)	72	550	40	830	430	34	60	118	1010	32	58	41
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		0.97	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	591	43	892	462	37	65	127	978	34	62	44
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	99	744	54	980	1496	119	83	528	884	43	260	185
Arrive On Green	0.06	0.22	0.22	0.28	0.45	0.45	0.05	0.28	0.28	0.02	0.26	0.26
Sat Flow, veh/h	1781	3350	243	3456	3322	265	1781	1870	1537	1781	1003	712
Grp Volume(v), veh/h	77	313	321	892	246	253	65	127	978	34	0	106
Grp Sat Flow(s),veh/h/ln	1781	1777	1816	1728	1777	1810	1781	1870	1537	1781	0	1715
Q Serve(g_s), s	4.8	18.9	18.9	28.3	10.0	10.1	4.1	5.9	32.0	2.2	0.0	5.5
Cycle Q Clear(g_c), s	4.8	18.9	18.9	28.3	10.0	10.1	4.1	5.9	32.0	2.2	0.0	5.5
Prop In Lane	1.00		0.13	1.00		0.15	1.00		1.00	1.00		0.42
Lane Grp Cap(c), veh/h	99	395	403	980	800	815	83	528	884	43	0	445
V/C Ratio(X)	0.78	0.79	0.80	0.91	0.31	0.31	0.78	0.24	1.11	0.79	0.00	0.24
Avail Cap(c_a), veh/h	229	445	455	1878	1198	1220	102	528	884	105	0	499
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	52.9	41.6	41.7	39.2	19.9	19.9	53.4	31.3	24.8	55.0	0.0	33.1
Incr Delay (d2), s/veh	5.0	9.7	9.7	1.4	0.3	0.3	20.9	0.3	63.9	11.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	9.3	9.5	12.0	4.2	4.3	2.3	2.7	37.7	1.1	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.9	51.3	51.3	40.6	20.2	20.2	74.3	31.6	88.8	66.5	0.0	33.5
LnGrp LOS	E	D	D	D	C	C	E	C	F	E	A	C
Approach Vol, veh/h		711			1391			1170			140	
Approach Delay, s/veh		52.0			33.3			81.8			41.5	
Approach LOS		D			C			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	37.7	36.6	32.0	9.7	35.1	10.7	57.9
Change Period (Y+Rc), s	4.4	5.7	4.4	6.8	4.4	* 5.7	4.4	* 6.8
Max Green Setting (Gmax), s	6.7	32.0	61.6	28.4	6.5	* 33	14.6	* 76
Max Q Clear Time (g_c+I1), s	4.2	34.0	30.3	20.9	6.1	7.5	6.8	12.1
Green Ext Time (p_c), s	0.0	0.0	1.9	3.2	0.0	0.7	0.0	5.7

Intersection Summary	
HCM 6th Ctrl Delay	54.2
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



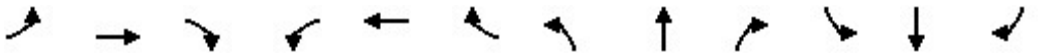
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1311	281	180	1133	201	170
Future Volume (veh/h)	1311	281	180	1133	201	170
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1425	305	196	1232	218	185
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1599	686	231	2228	850	390
Arrive On Green	0.45	0.45	0.13	0.63	0.25	0.25
Sat Flow, veh/h	3647	1523	1781	3647	3456	1585
Grp Volume(v), veh/h	1425	305	196	1232	218	185
Grp Sat Flow(s),veh/h/ln	1777	1523	1781	1777	1728	1585
Q Serve(g_s), s	34.4	12.9	10.1	18.5	4.7	9.3
Cycle Q Clear(g_c), s	34.4	12.9	10.1	18.5	4.7	9.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1599	686	231	2228	850	390
V/C Ratio(X)	0.89	0.44	0.85	0.55	0.26	0.47
Avail Cap(c_a), veh/h	1599	686	354	2519	850	390
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	23.6	17.7	39.8	10.0	28.4	30.1
Incr Delay (d2), s/veh	7.9	2.1	7.0	0.4	0.7	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.3	4.7	4.8	6.5	2.0	3.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.5	19.8	46.8	10.4	29.1	34.2
LnGrp LOS	C	B	D	B	C	C
Approach Vol, veh/h	1730			1428	403	
Approach Delay, s/veh	29.5			15.4	31.5	
Approach LOS	C			B	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	16.5	49.0				65.5	28.0
Change Period (Y+Rc), s	4.4	6.9				* 6.9	5.0
Max Green Setting (Gmax), s	18.6	42.1				* 66	23.0
Max Q Clear Time (g_c+I1), s	12.1	36.4				20.5	11.3
Green Ext Time (p_c), s	0.1	5.0				23.1	1.0

Intersection Summary	
HCM 6th Ctrl Delay	24.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1730	210	180	1690	10	460	30	70	10	20	60
Future Volume (veh/h)	40	1730	210	180	1690	10	460	30	70	10	20	60
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		0.96	1.00		0.96	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	1922	233	200	1878	11	535	0	78	11	22	67
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	57	2423	735	223	2974	17	670	0	285	37	74	85
Arrive On Green	0.03	0.47	0.47	0.13	0.57	0.57	0.19	0.00	0.19	0.06	0.06	0.06
Sat Flow, veh/h	1781	5106	1549	1781	5237	31	3563	0	1516	613	1226	1413
Grp Volume(v), veh/h	44	1922	233	200	1221	668	535	0	78	33	0	67
Grp Sat Flow(s),veh/h/ln	1781	1702	1549	1781	1702	1864	1781	0	1516	1840	0	1413
Q Serve(g_s), s	3.4	44.4	13.0	15.5	33.8	33.8	20.1	0.0	6.2	2.4	0.0	6.6
Cycle Q Clear(g_c), s	3.4	44.4	13.0	15.5	33.8	33.8	20.1	0.0	6.2	2.4	0.0	6.6
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.33		1.00
Lane Grp Cap(c), veh/h	57	2423	735	223	1933	1058	670	0	285	110	0	85
V/C Ratio(X)	0.78	0.79	0.32	0.90	0.63	0.63	0.80	0.00	0.27	0.30	0.00	0.79
Avail Cap(c_a), veh/h	88	2423	735	234	1933	1058	942	0	401	133	0	102
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.3	31.0	22.7	60.4	20.4	20.4	54.3	0.0	48.6	63.0	0.0	64.9
Incr Delay (d2), s/veh	8.4	2.8	1.1	31.0	1.6	2.9	2.1	0.0	0.2	0.6	0.0	23.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	18.6	5.0	8.9	13.7	15.3	9.2	0.0	2.4	1.1	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.7	33.8	23.9	91.3	22.0	23.2	56.4	0.0	48.8	63.5	0.0	88.6
LnGrp LOS	E	C	C	F	C	C	E	A	D	E	A	F
Approach Vol, veh/h		2199			2089			613			100	
Approach Delay, s/veh		33.5			29.0			55.5			80.3	
Approach LOS		C			C			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.9	72.4		13.3	8.9	85.5		32.3				
Change Period (Y+Rc), s	4.4	6.0		4.9	4.4	* 6		6.0				
Max Green Setting (Gmax), s	18.4	53.2		10.1	6.9	* 65		37.0				
Max Q Clear Time (g_c+I1), s	17.5	46.4		8.6	5.4	35.8		22.1				
Green Ext Time (p_c), s	0.0	6.3		0.0	0.0	21.5		1.1				

Intersection Summary			
HCM 6th Ctrl Delay		35.3	
HCM 6th LOS		D	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



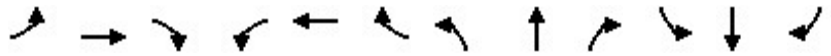
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1690	110	10	1630	10	170	10	30	20	20	10
Future Volume (veh/h)	0	1690	110	10	1630	10	170	10	30	20	20	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.96	1.00		0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1878	122	11	1811	11	189	11	33	22	22	11
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1	2004	129	18	2294	14	765	88	265	52	31	16
Arrive On Green	0.00	0.59	0.59	0.01	0.63	0.63	0.22	0.22	0.22	0.03	0.03	0.03
Sat Flow, veh/h	1781	3385	217	1781	3620	22	3456	399	1198	1781	1076	538
Grp Volume(v), veh/h	0	974	1026	11	888	934	189	0	44	22	0	33
Grp Sat Flow(s),veh/h/ln	1781	1777	1825	1781	1777	1865	1728	0	1597	1781	0	1613
Q Serve(g_s), s	0.0	69.3	73.3	0.9	51.2	51.5	6.3	0.0	3.1	1.7	0.0	2.8
Cycle Q Clear(g_c), s	0.0	69.3	73.3	0.9	51.2	51.5	6.3	0.0	3.1	1.7	0.0	2.8
Prop In Lane	1.00		0.12	1.00		0.01	1.00		0.75	1.00		0.33
Lane Grp Cap(c), veh/h	1	1052	1081	18	1126	1182	765	0	354	52	0	47
V/C Ratio(X)	0.00	0.93	0.95	0.62	0.79	0.79	0.25	0.00	0.12	0.42	0.00	0.70
Avail Cap(c_a), veh/h	51	1052	1081	51	1126	1182	765	0	354	52	0	47
HCM Platoon Ratio	1.00	1.00	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	1.00	0.61	0.61	0.61	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	25.8	26.6	69.0	18.8	18.8	44.9	0.0	43.6	66.8	0.0	67.3
Incr Delay (d2), s/veh	0.0	14.8	17.6	7.8	3.5	3.4	0.8	0.0	0.7	23.1	0.0	60.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	32.3	35.6	0.4	21.2	22.4	2.8	0.0	1.3	1.1	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	40.6	44.2	76.8	22.3	22.2	45.7	0.0	44.4	89.9	0.0	128.2
LnGrp LOS	A	D	D	E	C	C	D	A	D	F	A	F
Approach Vol, veh/h		2000			1833			233			55	
Approach Delay, s/veh		42.4			22.6			45.4			112.9	
Approach LOS		D			C			D			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.8	88.9		9.0	0.0	94.7		36.3
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		5.3
Max Green Setting (Gmax), s	4.6	* 81		4.1	4.0	80.3		31.0
Max Q Clear Time (g_c+I1), s	2.9	75.3		4.8	0.0	53.5		8.3
Green Ext Time (p_c), s	0.0	5.2		0.0	0.0	24.1		0.5

Intersection Summary	
HCM 6th Ctrl Delay	34.7
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1660	30	30	1450	70	50	40	30	210	30	140
Future Volume (veh/h)	40	1660	30	30	1450	70	50	40	30	210	30	140
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		0.97	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	1930	35	35	1686	81	58	47	35	244	35	163
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	61	2218	956	45	2186	942	204	234	174	312	67	311
Arrive On Green	0.03	0.62	0.62	0.03	0.62	0.62	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1781	3554	1532	1781	3554	1531	1177	980	730	1303	280	1303
Grp Volume(v), veh/h	47	1930	35	35	1686	81	58	0	82	244	0	198
Grp Sat Flow(s),veh/h/ln	1781	1777	1532	1781	1777	1531	1177	0	1709	1303	0	1583
Q Serve(g_s), s	3.7	62.6	1.2	2.7	48.6	3.0	6.3	0.0	5.4	25.8	0.0	15.2
Cycle Q Clear(g_c), s	3.7	62.6	1.2	2.7	48.6	3.0	21.6	0.0	5.4	31.2	0.0	15.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.43	1.00		0.82
Lane Grp Cap(c), veh/h	61	2218	956	45	2186	942	204	0	408	312	0	378
V/C Ratio(X)	0.78	0.87	0.04	0.78	0.77	0.09	0.28	0.00	0.20	0.78	0.00	0.52
Avail Cap(c_a), veh/h	88	2218	956	71	2186	942	218	0	429	324	0	392
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.26	0.26	0.26	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.1	21.7	10.1	67.9	19.7	10.9	55.8	0.0	42.6	55.1	0.0	46.4
Incr Delay (d2), s/veh	3.8	1.4	0.0	10.4	2.7	0.2	0.3	0.0	0.1	10.1	0.0	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	1.7	25.2	0.4	1.4	20.2	1.1	1.9	0.0	2.3	9.4	0.0	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.9	23.0	10.1	78.2	22.4	11.1	56.0	0.0	42.7	65.2	0.0	46.8
LnGrp LOS	E	C	B	E	C	B	E	A	D	E	A	D
Approach Vol, veh/h		2012			1802			140			442	
Approach Delay, s/veh		23.9			23.0			48.2			57.0	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.9	93.4		38.7	9.2	92.1		38.7
Change Period (Y+Rc), s	4.4	* 6		5.3	4.4	6.0		* 5.3
Max Green Setting (Gmax), s	5.6	* 84		34.7	6.9	82.7		* 35
Max Q Clear Time (g_c+I1), s	4.7	64.6		33.2	5.7	50.6		23.6
Green Ext Time (p_c), s	0.0	18.5		0.2	0.0	27.2		0.3

Intersection Summary	
HCM 6th Ctrl Delay	27.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	4.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	40	50	20	40	30
Future Vol, veh/h	30	40	50	20	40	30
Conflicting Peds, #/hr	10	10	0	12	12	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	48	60	24	48	36

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	226	94	0	0	96	0
Stage 1	84	-	-	-	-	-
Stage 2	142	-	-	-	-	-
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	762	963	-	-	1498	-
Stage 1	939	-	-	-	-	-
Stage 2	885	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	722	943	-	-	1481	-
Mov Cap-2 Maneuver	722	-	-	-	-	-
Stage 1	929	-	-	-	-	-
Stage 2	848	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	4.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	834	1481	-
HCM Lane V/C Ratio	-	-	0.101	0.033	-
HCM Control Delay (s)	-	-	9.8	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	70	0	0	0	0	60
Future Vol, veh/h	70	0	0	0	0	60
Conflicting Peds, #/hr	10	0	0	10	10	10
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	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	0	0	0	0	72

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	11	0	-	0	189	21
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	178	-
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	1608	-	-	-	800	1056
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	853	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1593	-	-	-	742	1036
Mov Cap-2 Maneuver	-	-	-	-	742	-
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	844	-

Approach	EB	WB	SB
HCM Control Delay, s	7.4	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1593	-	-	-	1036
HCM Lane V/C Ratio	0.053	-	-	-	0.07
HCM Control Delay (s)	7.4	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.2

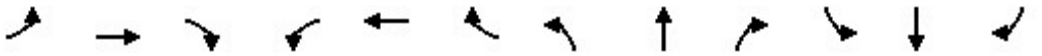
Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	20	20	60	100	20
Future Vol, veh/h	10	20	20	60	100	20
Conflicting Peds, #/hr	10	10	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	29	29	86	143	29

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	322	178	182	0	-	0
Stage 1	168	-	-	-	-	-
Stage 2	154	-	-	-	-	-
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	672	865	1393	-	-	-
Stage 1	862	-	-	-	-	-
Stage 2	874	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	644	849	1380	-	-	-
Mov Cap-2 Maneuver	644	-	-	-	-	-
Stage 1	834	-	-	-	-	-
Stage 2	865	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	1.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1380	-	768	-	-
HCM Lane V/C Ratio	0.021	-	0.056	-	-
HCM Control Delay (s)	7.7	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	480	30	660	430	20	40	40	990	20	90	20
Future Volume (veh/h)	30	480	30	660	430	20	40	40	990	20	90	20
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		0.97	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	527	33	725	473	22	44	44	978	22	99	22
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	41	715	45	812	1459	68	56	640	900	32	484	108
Arrive On Green	0.02	0.21	0.21	0.23	0.42	0.42	0.03	0.34	0.34	0.02	0.33	0.33
Sat Flow, veh/h	1781	3388	212	3456	3450	160	1781	1870	1542	1781	1473	327
Grp Volume(v), veh/h	33	276	284	725	243	252	44	44	978	22	0	121
Grp Sat Flow(s),veh/h/ln	1781	1777	1823	1728	1777	1834	1781	1870	1542	1781	0	1800
Q Serve(g_s), s	2.0	15.9	16.0	22.3	10.0	10.1	2.7	1.7	37.6	1.3	0.0	5.3
Cycle Q Clear(g_c), s	2.0	15.9	16.0	22.3	10.0	10.1	2.7	1.7	37.6	1.3	0.0	5.3
Prop In Lane	1.00		0.12	1.00		0.09	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	41	375	385	812	751	775	56	640	900	32	0	592
V/C Ratio(X)	0.80	0.74	0.74	0.89	0.32	0.33	0.78	0.07	1.09	0.69	0.00	0.20
Avail Cap(c_a), veh/h	123	453	465	1906	1326	1368	78	640	900	102	0	592
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	53.4	40.5	40.5	40.7	21.2	21.2	52.8	24.3	23.4	53.7	0.0	26.6
Incr Delay (d2), s/veh	12.0	6.2	6.2	1.4	0.4	0.4	19.3	0.2	56.2	9.6	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	7.6	7.8	9.5	4.2	4.4	1.5	0.8	35.5	0.7	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.4	46.6	46.7	42.1	21.6	21.6	72.1	24.5	79.7	63.3	0.0	27.3
LnGrp LOS	E	D	D	D	C	C	E	C	F	E	A	C
Approach Vol, veh/h		593			1220			1066			143	
Approach Delay, s/veh		47.7			33.8			77.1			32.9	
Approach LOS		D			C			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	43.3	30.2	30.0	7.9	41.8	7.0	53.2
Change Period (Y+Rc), s	4.4	5.7	4.4	6.8	4.4	* 5.7	4.4	* 6.8
Max Green Setting (Gmax), s	6.3	33.8	60.6	28.0	4.8	* 36	7.6	* 82
Max Q Clear Time (g_c+I1), s	3.3	39.6	24.3	18.0	4.7	7.3	4.0	12.1
Green Ext Time (p_c), s	0.0	0.0	1.5	3.4	0.0	0.8	0.0	5.6

Intersection Summary	
HCM 6th Ctrl Delay	51.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



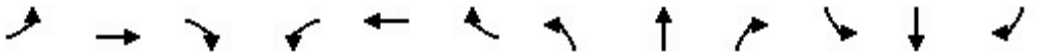
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1300	210	80	790	290	210
Future Volume (veh/h)	1300	210	80	790	290	210
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1368	221	84	832	305	221
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1779	764	108	2160	918	421
Arrive On Green	0.50	0.50	0.06	0.61	0.27	0.27
Sat Flow, veh/h	3647	1526	1781	3647	3456	1585
Grp Volume(v), veh/h	1368	221	84	832	305	221
Grp Sat Flow(s),veh/h/ln	1777	1526	1781	1777	1728	1585
Q Serve(g_s), s	29.4	8.0	4.4	11.3	6.7	11.2
Cycle Q Clear(g_c), s	29.4	8.0	4.4	11.3	6.7	11.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1779	764	108	2160	918	421
V/C Ratio(X)	0.77	0.29	0.78	0.39	0.33	0.52
Avail Cap(c_a), veh/h	1779	764	220	2428	918	421
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	19.1	13.7	43.6	9.4	27.8	29.5
Incr Delay (d2), s/veh	3.3	1.0	4.5	0.2	1.0	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.1	2.8	2.0	4.1	2.8	4.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.3	14.7	48.1	9.7	28.8	34.1
LnGrp LOS	C	B	D	A	C	C
Approach Vol, veh/h	1589			916	526	
Approach Delay, s/veh	21.3			13.2	31.0	
Approach LOS	C			B	C	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.1	54.0			64.1	30.0
Change Period (Y+Rc), s	4.4	6.9			* 6.9	5.0
Max Green Setting (Gmax), s	11.6	47.1			* 64	25.0
Max Q Clear Time (g_c+I1), s	6.4	31.4			13.3	13.2
Green Ext Time (p_c), s	0.0	11.9			13.9	1.3

Intersection Summary	
HCM 6th Ctrl Delay	20.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	1390	240	280	1790	10	320	30	180	10	30	50
Future Volume (veh/h)	110	1390	240	280	1790	10	320	30	180	10	30	50
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		0.96	1.00		0.96	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	124	1562	270	315	2011	11	384	0	202	11	34	56
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	2185	662	315	2799	15	626	0	267	24	75	75
Arrive On Green	0.07	0.43	0.43	0.18	0.53	0.53	0.18	0.00	0.18	0.05	0.05	0.05
Sat Flow, veh/h	1781	5106	1547	1781	5239	29	3563	0	1517	452	1396	1411
Grp Volume(v), veh/h	124	1562	270	315	1306	716	384	0	202	45	0	56
Grp Sat Flow(s),veh/h/ln	1781	1702	1547	1781	1702	1864	1781	0	1517	1848	0	1411
Q Serve(g_s), s	8.9	32.3	15.5	22.6	37.1	37.2	12.7	0.0	16.2	3.0	0.0	5.0
Cycle Q Clear(g_c), s	8.9	32.3	15.5	22.6	37.1	37.2	12.7	0.0	16.2	3.0	0.0	5.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.24		1.00
Lane Grp Cap(c), veh/h	125	2185	662	315	1818	996	626	0	267	99	0	75
V/C Ratio(X)	0.99	0.71	0.41	1.00	0.72	0.72	0.61	0.00	0.76	0.46	0.00	0.74
Avail Cap(c_a), veh/h	125	2185	662	315	1818	996	1030	0	439	117	0	89
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.5	30.2	25.4	52.7	22.5	22.5	48.7	0.0	50.2	58.8	0.0	59.7
Incr Delay (d2), s/veh	77.1	2.0	1.9	51.1	2.5	4.5	0.4	0.0	1.7	1.2	0.0	18.7
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	6.7	13.5	6.0	14.5	15.1	17.1	5.7	0.0	6.3	1.5	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	136.5	32.2	27.2	103.8	25.0	27.0	49.1	0.0	51.8	60.0	0.0	78.4
LnGrp LOS	F	C	C	F	C	C	D	A	D	E	A	E
Approach Vol, veh/h		1956			2337			586			101	
Approach Delay, s/veh		38.1			36.3			50.0			70.2	
Approach LOS		D			D			D			E	

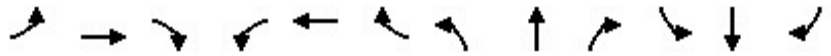
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	27.0	60.8		11.7	13.4	74.4		28.5				
Change Period (Y+Rc), s	4.4	6.0		4.9	4.4	* 6		6.0				
Max Green Setting (Gmax), s	22.6	39.0		8.1	9.0	* 53		37.0				
Max Q Clear Time (g_c+I1), s	24.6	34.3		7.0	10.9	39.2		18.2				
Green Ext Time (p_c), s	0.0	4.2		0.0	0.0	12.0		1.1				

Intersection Summary		
HCM 6th Ctrl Delay		39.3
HCM 6th LOS		D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



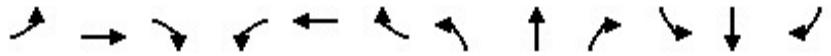
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1300	190	40	1890	30	130	10	50	30	10	10
Future Volume (veh/h)	30	1300	190	40	1890	30	130	10	50	30	10	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.97	1.00		0.84
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	1354	198	42	1969	31	135	10	52	31	10	10
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	39	1653	239	54	1934	30	840	62	322	60	26	26
Arrive On Green	0.02	0.53	0.53	0.03	0.54	0.54	0.24	0.24	0.24	0.03	0.03	0.03
Sat Flow, veh/h	1781	3105	450	1781	3578	56	3456	255	1324	1781	780	780
Grp Volume(v), veh/h	31	769	783	42	974	1026	135	0	62	31	0	20
Grp Sat Flow(s),veh/h/ln	1781	1777	1778	1781	1777	1858	1728	0	1579	1781	0	1560
Q Serve(g_s), s	2.2	45.7	47.1	3.0	69.2	69.2	3.9	0.0	4.0	2.2	0.0	1.6
Cycle Q Clear(g_c), s	2.2	45.7	47.1	3.0	69.2	69.2	3.9	0.0	4.0	2.2	0.0	1.6
Prop In Lane	1.00		0.25	1.00		0.03	1.00		0.84	1.00		0.50
Lane Grp Cap(c), veh/h	39	946	946	54	960	1004	840	0	384	60	0	52
V/C Ratio(X)	0.79	0.81	0.83	0.78	1.01	1.02	0.16	0.00	0.16	0.52	0.00	0.38
Avail Cap(c_a), veh/h	58	946	946	92	960	1004	840	0	384	60	0	52
HCM Platoon Ratio	1.00	1.00	1.00	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	0.38	0.38	0.38	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	62.3	24.7	25.0	61.6	29.4	29.4	38.2	0.0	38.2	60.8	0.0	60.5
Incr Delay (d2), s/veh	19.6	7.6	8.3	3.5	21.6	23.2	0.4	0.0	0.9	28.6	0.0	19.8
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	1.2	20.6	21.4	1.4	33.9	35.9	1.7	0.0	1.6	1.5	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.9	32.3	33.3	65.1	51.0	52.6	38.6	0.0	39.1	89.4	0.0	80.3
LnGrp LOS	F	C	C	E	F	F	D	A	D	F	A	F
Approach Vol, veh/h		1583			2042			197			51	
Approach Delay, s/veh		33.8			52.1			38.7			85.8	
Approach LOS		C			D			D			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.3	74.1		9.2	7.2	75.2		36.4
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		5.3
Max Green Setting (Gmax), s	6.6	* 66		4.3	4.2	67.8		31.1
Max Q Clear Time (g_c+I1), s	5.0	49.1		4.2	4.2	71.2		6.0
Green Ext Time (p_c), s	0.0	14.4		0.0	0.0	0.0		0.5

Intersection Summary	
HCM 6th Ctrl Delay	44.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	1210	60	80	1770	240	50	30	50	180	50	70
Future Volume (veh/h)	110	1210	60	80	1770	240	50	30	50	180	50	70
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	118	1301	65	86	1903	258	54	32	54	194	54	75
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	2145	924	108	2094	902	239	130	220	276	148	205
Arrive On Green	0.08	0.60	0.60	0.06	0.59	0.59	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1781	3554	1531	1781	3554	1530	1249	610	1030	1297	693	962
Grp Volume(v), veh/h	118	1301	65	86	1903	258	54	0	86	194	0	129
Grp Sat Flow(s),veh/h/ln	1781	1777	1531	1781	1777	1530	1249	0	1640	1297	0	1655
Q Serve(g_s), s	8.4	29.3	2.3	6.1	60.6	10.7	4.9	0.0	5.6	18.7	0.0	8.5
Cycle Q Clear(g_c), s	8.4	29.3	2.3	6.1	60.6	10.7	13.5	0.0	5.6	24.3	0.0	8.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.63	1.00		0.58
Lane Grp Cap(c), veh/h	134	2145	924	108	2094	902	239	0	350	276	0	353
V/C Ratio(X)	0.88	0.61	0.07	0.80	0.91	0.29	0.23	0.00	0.25	0.70	0.00	0.37
Avail Cap(c_a), veh/h	134	2145	924	177	2094	902	263	0	380	297	0	379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.44	0.44	0.44	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.6	15.9	10.5	59.3	23.3	13.0	48.7	0.0	41.8	51.9	0.0	43.0
Incr Delay (d2), s/veh	24.1	0.6	0.1	5.0	7.3	0.8	0.2	0.0	0.1	5.4	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	4.7	11.7	0.8	2.9	26.1	3.8	1.6	0.0	2.3	6.5	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.8	16.4	10.6	64.3	30.5	13.8	48.9	0.0	41.9	57.3	0.0	43.2
LnGrp LOS	F	B	B	E	C	B	D	A	D	E	A	D
Approach Vol, veh/h		1484			2247			140			323	
Approach Delay, s/veh		21.5			29.9			44.6			51.6	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.2	83.3		32.6	14.0	81.4		32.6
Change Period (Y+Rc), s	4.4	* 6		5.3	4.4	6.0		* 5.3
Max Green Setting (Gmax), s	12.7	* 71		29.3	9.6	73.4		* 30
Max Q Clear Time (g_c+I1), s	10.4	31.3		26.3	10.4	62.6		15.5
Green Ext Time (p_c), s	0.0	25.8		0.3	0.0	10.4		0.3

Intersection Summary	
HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	4.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	50	40	30	60	50
Future Vol, veh/h	30	50	40	30	60	50
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	60	48	36	72	60

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	290	86	0	0	94	0
Stage 1	76	-	-	-	-	-
Stage 2	214	-	-	-	-	-
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	701	973	-	-	1500	-
Stage 1	947	-	-	-	-	-
Stage 2	822	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	653	955	-	-	1486	-
Mov Cap-2 Maneuver	653	-	-	-	-	-
Stage 1	938	-	-	-	-	-
Stage 2	774	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	4.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	814	1486	-
HCM Lane V/C Ratio	-	-	0.118	0.049	-
HCM Control Delay (s)	-	-	10	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.2	-

Intersection	
Int Delay, s/veh	8.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	70	0	0	0	0	80
Future Vol, veh/h	70	0	0	0	0	80
Conflicting Peds, #/hr	10	0	0	10	10	10
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	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	0	0	0	0	96

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	11	0	-	0	189	21
Stage 1	-	-	-	-	11	-
Stage 2	-	-	-	-	178	-
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	1608	-	-	-	800	1056
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	853	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1593	-	-	-	742	1036
Mov Cap-2 Maneuver	-	-	-	-	742	-
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	844	-

Approach	EB	WB	SB
HCM Control Delay, s	7.4	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1593	-	-	-	1036
HCM Lane V/C Ratio	0.053	-	-	-	0.093
HCM Control Delay (s)	7.4	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

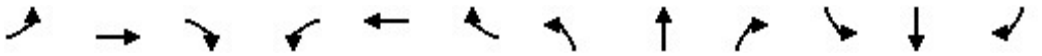
Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	30	40	120	60	20
Future Vol, veh/h	20	30	40	120	60	20
Conflicting Peds, #/hr	10	10	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	34	45	136	68	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	326	100	101	0	-	0
Stage 1	90	-	-	-	-	-
Stage 2	236	-	-	-	-	-
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	668	956	1491	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	803	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	633	938	1477	-	-	-
Mov Cap-2 Maneuver	633	-	-	-	-	-
Stage 1	894	-	-	-	-	-
Stage 2	795	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	1.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1477	-	786	-	-
HCM Lane V/C Ratio	0.031	-	0.072	-	-
HCM Control Delay (s)	7.5	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	540	40	790	430	20	60	80	970	20	40	30
Future Volume (veh/h)	60	540	40	790	430	20	60	80	970	20	40	30
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		0.96	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	581	43	849	462	22	65	86	935	22	43	32
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	84	750	55	939	1547	73	83	546	880	32	258	192
Arrive On Green	0.05	0.22	0.22	0.27	0.45	0.45	0.05	0.29	0.29	0.02	0.26	0.26
Sat Flow, veh/h	1781	3345	247	3456	3446	164	1781	1870	1538	1781	981	730
Grp Volume(v), veh/h	65	308	316	849	238	246	65	86	935	22	0	75
Grp Sat Flow(s),veh/h/ln	1781	1777	1815	1728	1777	1833	1781	1870	1538	1781	0	1711
Q Serve(g_s), s	4.0	17.8	17.9	26.0	9.3	9.4	4.0	3.7	32.0	1.3	0.0	3.7
Cycle Q Clear(g_c), s	4.0	17.8	17.9	26.0	9.3	9.4	4.0	3.7	32.0	1.3	0.0	3.7
Prop In Lane	1.00		0.14	1.00		0.09	1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	84	398	407	939	798	823	83	546	880	32	0	450
V/C Ratio(X)	0.77	0.77	0.78	0.90	0.30	0.30	0.78	0.16	1.06	0.69	0.00	0.17
Avail Cap(c_a), veh/h	237	460	470	1942	1238	1277	106	546	880	109	0	515
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	51.7	39.9	39.9	38.5	19.2	19.2	51.7	28.8	24.2	53.5	0.0	31.2
Incr Delay (d2), s/veh	5.6	8.1	8.1	1.4	0.3	0.3	18.7	0.2	48.4	9.6	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	1.9	8.6	8.8	11.0	3.9	4.0	2.2	1.7	32.9	0.7	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.3	48.0	48.0	39.9	19.5	19.6	70.4	29.0	72.6	63.2	0.0	31.4
LnGrp LOS	E	D	D	D	B	B	E	C	F	E	A	C
Approach Vol, veh/h		689			1333			1086			97	
Approach Delay, s/veh		48.9			32.5			69.0			38.6	
Approach LOS		D			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	37.7	34.2	31.4	9.5	34.5	9.6	56.0
Change Period (Y+Rc), s	4.4	5.7	4.4	6.8	4.4	* 5.7	4.4	* 6.8
Max Green Setting (Gmax), s	6.7	32.0	61.6	28.4	6.5	* 33	14.6	* 76
Max Q Clear Time (g_c+I1), s	3.3	34.0	28.0	19.9	6.0	5.7	6.0	11.4
Green Ext Time (p_c), s	0.0	0.0	1.8	3.4	0.0	0.5	0.0	5.4

Intersection Summary	
HCM 6th Ctrl Delay	48.6
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



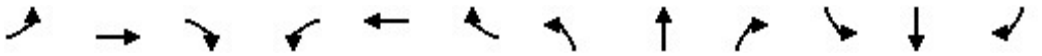
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1280	280	180	1100	200	170
Future Volume (veh/h)	1280	280	180	1100	200	170
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1391	304	196	1196	217	185
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1599	686	231	2228	850	390
Arrive On Green	0.45	0.45	0.13	0.63	0.25	0.25
Sat Flow, veh/h	3647	1523	1781	3647	3456	1585
Grp Volume(v), veh/h	1391	304	196	1196	217	185
Grp Sat Flow(s),veh/h/ln	1777	1523	1781	1777	1728	1585
Q Serve(g_s), s	33.1	12.8	10.1	17.7	4.7	9.3
Cycle Q Clear(g_c), s	33.1	12.8	10.1	17.7	4.7	9.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1599	686	231	2228	850	390
V/C Ratio(X)	0.87	0.44	0.85	0.54	0.26	0.47
Avail Cap(c_a), veh/h	1599	686	354	2519	850	390
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	23.2	17.7	39.8	9.8	28.4	30.1
Incr Delay (d2), s/veh	6.7	2.1	7.0	0.4	0.7	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.5	4.7	4.8	6.3	2.0	3.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.0	19.7	46.8	10.2	29.1	34.2
LnGrp LOS	C	B	D	B	C	C
Approach Vol, veh/h	1695			1392	402	
Approach Delay, s/veh	28.1			15.4	31.5	
Approach LOS	C			B	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	16.5	49.0				65.5	28.0
Change Period (Y+Rc), s	4.4	6.9				* 6.9	5.0
Max Green Setting (Gmax), s	18.6	42.1				* 66	23.0
Max Q Clear Time (g_c+I1), s	12.1	35.1				19.7	11.3
Green Ext Time (p_c), s	0.1	6.0				22.4	1.0

Intersection Summary	
HCM 6th Ctrl Delay	23.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1732	210	180	1696	10	460	30	70	10	20	60
Future Volume (veh/h)	40	1732	210	180	1696	10	460	30	70	10	20	60
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		0.96	1.00		0.96	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	1924	233	200	1884	11	535	0	78	11	22	67
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	57	2423	735	223	2974	17	670	0	285	37	74	85
Arrive On Green	0.03	0.47	0.47	0.13	0.57	0.57	0.19	0.00	0.19	0.06	0.06	0.06
Sat Flow, veh/h	1781	5106	1549	1781	5237	31	3563	0	1516	613	1226	1413
Grp Volume(v), veh/h	44	1924	233	200	1224	671	535	0	78	33	0	67
Grp Sat Flow(s),veh/h/ln	1781	1702	1549	1781	1702	1864	1781	0	1516	1840	0	1413
Q Serve(g_s), s	3.4	44.5	13.0	15.5	34.0	34.0	20.1	0.0	6.2	2.4	0.0	6.6
Cycle Q Clear(g_c), s	3.4	44.5	13.0	15.5	34.0	34.0	20.1	0.0	6.2	2.4	0.0	6.6
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.33		1.00
Lane Grp Cap(c), veh/h	57	2423	735	223	1933	1058	670	0	285	110	0	85
V/C Ratio(X)	0.78	0.79	0.32	0.90	0.63	0.63	0.80	0.00	0.27	0.30	0.00	0.79
Avail Cap(c_a), veh/h	88	2423	735	234	1933	1058	942	0	401	133	0	102
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.3	31.0	22.7	60.4	20.4	20.4	54.3	0.0	48.6	63.0	0.0	64.9
Incr Delay (d2), s/veh	8.4	2.8	1.1	31.0	1.6	2.9	2.1	0.0	0.2	0.6	0.0	23.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	18.7	5.0	8.9	13.7	15.4	9.2	0.0	2.4	1.1	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.7	33.8	23.9	91.3	22.0	23.3	56.4	0.0	48.8	63.5	0.0	88.6
LnGrp LOS	E	C	C	F	C	C	E	A	D	E	A	F
Approach Vol, veh/h		2201			2095			613			100	
Approach Delay, s/veh		33.6			29.0			55.5			80.3	
Approach LOS		C			C			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.9	72.4		13.3	8.9	85.5		32.3				
Change Period (Y+Rc), s	4.4	6.0		4.9	4.4	* 6		6.0				
Max Green Setting (Gmax), s	18.4	53.2		10.1	6.9	* 65		37.0				
Max Q Clear Time (g_c+I1), s	17.5	46.5		8.6	5.4	36.0		22.1				
Green Ext Time (p_c), s	0.0	6.2		0.0	0.0	21.5		1.1				

Intersection Summary			
HCM 6th Ctrl Delay		35.3	
HCM 6th LOS		D	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



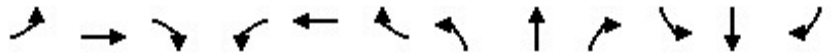
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1690	112	10	1630	10	177	10	30	20	20	10
Future Volume (veh/h)	0	1690	112	10	1630	10	177	10	30	20	20	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.96	1.00		0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1878	124	11	1811	11	197	11	33	22	22	11
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1	2002	130	18	2294	14	765	88	265	52	31	16
Arrive On Green	0.00	0.59	0.59	0.01	0.63	0.63	0.22	0.22	0.22	0.03	0.03	0.03
Sat Flow, veh/h	1781	3381	220	1781	3620	22	3456	399	1198	1781	1076	538
Grp Volume(v), veh/h	0	975	1027	11	888	934	197	0	44	22	0	33
Grp Sat Flow(s),veh/h/ln	1781	1777	1824	1781	1777	1865	1728	0	1597	1781	0	1613
Q Serve(g_s), s	0.0	69.5	73.5	0.9	51.2	51.5	6.6	0.0	3.1	1.7	0.0	2.8
Cycle Q Clear(g_c), s	0.0	69.5	73.5	0.9	51.2	51.5	6.6	0.0	3.1	1.7	0.0	2.8
Prop In Lane	1.00		0.12	1.00		0.01	1.00		0.75	1.00		0.33
Lane Grp Cap(c), veh/h	1	1052	1080	18	1126	1182	765	0	354	52	0	47
V/C Ratio(X)	0.00	0.93	0.95	0.62	0.79	0.79	0.26	0.00	0.12	0.42	0.00	0.70
Avail Cap(c_a), veh/h	51	1052	1080	51	1126	1182	765	0	354	52	0	47
HCM Platoon Ratio	1.00	1.00	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	1.00	0.59	0.59	0.59	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	25.8	26.6	69.0	18.8	18.8	45.0	0.0	43.6	66.8	0.0	67.3
Incr Delay (d2), s/veh	0.0	14.9	17.8	7.5	3.4	3.3	0.8	0.0	0.7	23.1	0.0	60.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	32.4	35.8	0.4	21.2	22.3	2.9	0.0	1.3	1.1	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	40.7	44.4	76.6	22.2	22.1	45.8	0.0	44.4	89.9	0.0	128.2
LnGrp LOS	A	D	D	E	C	C	D	A	D	F	A	F
Approach Vol, veh/h		2002			1833			241			55	
Approach Delay, s/veh		42.6			22.5			45.5			112.9	
Approach LOS		D			C			D			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.8	88.9		9.0	0.0	94.7		36.3
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		5.3
Max Green Setting (Gmax), s	4.6	* 81		4.1	4.0	80.3		31.0
Max Q Clear Time (g_c+I1), s	2.9	75.5		4.8	0.0	53.5		8.6
Green Ext Time (p_c), s	0.0	5.0		0.0	0.0	24.1		0.5

Intersection Summary	
HCM 6th Ctrl Delay	34.8
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1660	30	33	1450	70	50	53	43	210	33	140
Future Volume (veh/h)	40	1660	30	33	1450	70	50	53	43	210	33	140
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		0.97	0.99		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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	1930	35	38	1686	81	58	62	50	244	38	163
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	61	2177	938	49	2154	928	214	234	188	299	74	319
Arrive On Green	0.03	0.61	0.61	0.03	0.61	0.61	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1781	3554	1531	1781	3554	1531	1175	943	760	1270	300	1287
Grp Volume(v), veh/h	47	1930	35	38	1686	81	58	0	112	244	0	201
Grp Sat Flow(s),veh/h/ln	1781	1777	1531	1781	1777	1531	1175	0	1703	1270	0	1587
Q Serve(g_s), s	3.7	64.5	1.3	3.0	49.8	3.1	6.3	0.0	7.4	26.8	0.0	15.3
Cycle Q Clear(g_c), s	3.7	64.5	1.3	3.0	49.8	3.1	21.5	0.0	7.4	34.2	0.0	15.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.45	1.00		0.81
Lane Grp Cap(c), veh/h	61	2177	938	49	2154	928	214	0	422	299	0	393
V/C Ratio(X)	0.78	0.89	0.04	0.78	0.78	0.09	0.27	0.00	0.27	0.82	0.00	0.51
Avail Cap(c_a), veh/h	88	2177	938	71	2154	928	218	0	427	299	0	393
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.25	0.25	0.25	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	67.1	23.0	10.8	67.7	20.7	11.5	54.6	0.0	42.4	56.2	0.0	45.3
Incr Delay (d2), s/veh	3.6	1.6	0.0	15.8	2.9	0.2	0.2	0.0	0.1	15.0	0.0	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	1.7	26.2	0.4	1.6	20.8	1.1	1.9	0.0	3.2	9.8	0.0	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.7	24.6	10.8	83.5	23.6	11.7	54.9	0.0	42.5	71.1	0.0	45.8
LnGrp LOS	E	C	B	F	C	B	D	A	D	E	A	D
Approach Vol, veh/h		2012			1805			170			445	
Approach Delay, s/veh		25.4			24.3			46.7			59.7	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.2	91.8		40.0	9.2	90.8		40.0
Change Period (Y+Rc), s	4.4	* 6		5.3	4.4	6.0		* 5.3
Max Green Setting (Gmax), s	5.6	* 84		34.7	6.9	82.7		* 35
Max Q Clear Time (g_c+I1), s	5.7	66.5		36.2	5.7	51.8		23.5
Green Ext Time (p_c), s	0.0	16.8		0.0	0.0	26.3		0.4

Intersection Summary		
HCM 6th Ctrl Delay	29.2	
HCM 6th LOS	C	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	4.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	42	53	64	33	43	33
Future Vol, veh/h	42	53	64	33	43	33
Conflicting Peds, #/hr	10	10	0	12	12	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	51	64	77	40	52	40

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	263	119	0	0	129	0
Stage 1	109	-	-	-	-	-
Stage 2	154	-	-	-	-	-
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	726	933	-	-	1457	-
Stage 1	916	-	-	-	-	-
Stage 2	874	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	685	914	-	-	1440	-
Mov Cap-2 Maneuver	685	-	-	-	-	-
Stage 1	906	-	-	-	-	-
Stage 2	834	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	4.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	796	1440	-
HCM Lane V/C Ratio	-	-	0.144	0.036	-
HCM Control Delay (s)	-	-	10.3	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0.1	-

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	72	3	10	25	6	69
Future Vol, veh/h	72	3	10	25	6	69
Conflicting Peds, #/hr	10	0	0	10	10	10
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	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	87	4	12	30	7	83

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	52	0	-	0	225	47
Stage 1	-	-	-	-	37	-
Stage 2	-	-	-	-	188	-
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	1554	-	-	-	763	1022
Stage 1	-	-	-	-	985	-
Stage 2	-	-	-	-	844	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1539	-	-	-	705	1003
Mov Cap-2 Maneuver	-	-	-	-	705	-
Stage 1	-	-	-	-	920	-
Stage 2	-	-	-	-	836	-

Approach	EB	WB	SB
HCM Control Delay, s	7.2	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1539	-	-	-	970
HCM Lane V/C Ratio	0.056	-	-	-	0.093
HCM Control Delay (s)	7.5	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

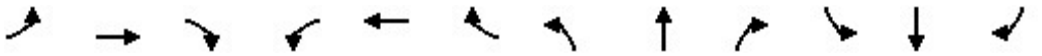
Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	33	23	63	111	25
Future Vol, veh/h	29	33	23	63	111	25
Conflicting Peds, #/hr	10	10	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	47	33	90	159	36

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	353	197	205	0	-	0
Stage 1	187	-	-	-	-	-
Stage 2	166	-	-	-	-	-
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	645	844	1366	-	-	-
Stage 1	845	-	-	-	-	-
Stage 2	863	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	616	828	1353	-	-	-
Mov Cap-2 Maneuver	616	-	-	-	-	-
Stage 1	815	-	-	-	-	-
Stage 2	854	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	2.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1353	-	713	-	-
HCM Lane V/C Ratio	0.024	-	0.124	-	-
HCM Control Delay (s)	7.7	0	10.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	480	30	660	430	21	40	44	990	24	108	22
Future Volume (veh/h)	31	480	30	660	430	21	40	44	990	24	108	22
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		0.97	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	527	33	725	473	23	44	48	978	26	119	24
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	43	720	45	813	1459	71	56	628	890	36	487	98
Arrive On Green	0.02	0.21	0.21	0.24	0.42	0.42	0.03	0.34	0.34	0.02	0.32	0.32
Sat Flow, veh/h	1781	3388	212	3456	3442	167	1781	1870	1542	1781	1503	303
Grp Volume(v), veh/h	34	276	284	725	244	252	44	48	978	26	0	143
Grp Sat Flow(s),veh/h/ln	1781	1777	1823	1728	1777	1832	1781	1870	1542	1781	0	1806
Q Serve(g_s), s	2.1	15.7	15.8	22.0	9.9	10.0	2.7	1.9	36.3	1.6	0.0	6.3
Cycle Q Clear(g_c), s	2.1	15.7	15.8	22.0	9.9	10.0	2.7	1.9	36.3	1.6	0.0	6.3
Prop In Lane	1.00		0.12	1.00		0.09	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	43	378	388	813	753	776	56	628	890	36	0	585
V/C Ratio(X)	0.79	0.73	0.73	0.89	0.32	0.33	0.78	0.08	1.10	0.73	0.00	0.24
Avail Cap(c_a), veh/h	100	459	471	1965	1386	1429	79	628	890	104	0	585
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	52.6	39.8	39.8	40.1	20.8	20.9	52.1	24.5	23.5	52.8	0.0	26.9
Incr Delay (d2), s/veh	11.6	5.8	5.8	1.4	0.4	0.4	18.1	0.2	60.8	10.0	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	7.4	7.6	9.4	4.2	4.3	1.5	0.9	36.0	0.8	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.2	45.6	45.6	41.5	21.2	21.2	70.2	24.8	84.3	62.8	0.0	27.9
LnGrp LOS	E	D	D	D	C	C	E	C	F	E	A	C
Approach Vol, veh/h		594			1221			1070			169	
Approach Delay, s/veh		46.7			33.3			81.0			33.3	
Approach LOS		D			C			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.6	42.0	29.9	29.8	7.8	40.8	7.0	52.7
Change Period (Y+Rc), s	4.4	5.7	4.4	6.8	4.4	* 5.7	4.4	* 6.8
Max Green Setting (Gmax), s	6.3	32.8	61.6	28.0	4.8	* 35	6.1	* 85
Max Q Clear Time (g_c+I1), s	3.6	38.3	24.0	17.8	4.7	8.3	4.1	12.0
Green Ext Time (p_c), s	0.0	0.0	1.5	3.5	0.0	1.0	0.0	5.6

Intersection Summary	
HCM 6th Ctrl Delay	52.6
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



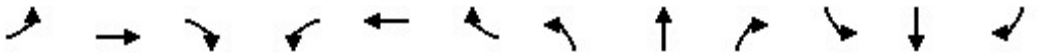
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1303	211	80	791	290	210
Future Volume (veh/h)	1303	211	80	791	290	210
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1372	222	84	833	305	221
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1779	764	108	2160	918	421
Arrive On Green	0.50	0.50	0.06	0.61	0.27	0.27
Sat Flow, veh/h	3647	1526	1781	3647	3456	1585
Grp Volume(v), veh/h	1372	222	84	833	305	221
Grp Sat Flow(s),veh/h/ln	1777	1526	1781	1777	1728	1585
Q Serve(g_s), s	29.6	8.0	4.4	11.3	6.7	11.2
Cycle Q Clear(g_c), s	29.6	8.0	4.4	11.3	6.7	11.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1779	764	108	2160	918	421
V/C Ratio(X)	0.77	0.29	0.78	0.39	0.33	0.52
Avail Cap(c_a), veh/h	1779	764	220	2428	918	421
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	19.1	13.7	43.6	9.5	27.8	29.5
Incr Delay (d2), s/veh	3.3	1.0	4.5	0.2	1.0	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.2	2.8	2.0	4.1	2.8	4.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.4	14.7	48.1	9.7	28.8	34.1
LnGrp LOS	C	B	D	A	C	C
Approach Vol, veh/h	1594			917	526	
Approach Delay, s/veh	21.3			13.2	31.0	
Approach LOS	C			B	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	10.1	54.0				64.1	30.0
Change Period (Y+Rc), s	4.4	6.9				* 6.9	5.0
Max Green Setting (Gmax), s	11.6	47.1				* 64	25.0
Max Q Clear Time (g_c+I1), s	6.4	31.6				13.3	13.2
Green Ext Time (p_c), s	0.0	11.8				13.9	1.3

Intersection Summary	
HCM 6th Ctrl Delay	20.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	1397	240	280	1793	10	320	30	180	10	30	50
Future Volume (veh/h)	110	1397	240	280	1793	10	320	30	180	10	30	50
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		0.96	1.00		0.96	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	124	1570	270	315	2015	11	384	0	202	11	34	56
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	2185	662	315	2799	15	626	0	267	24	75	75
Arrive On Green	0.07	0.43	0.43	0.18	0.53	0.53	0.18	0.00	0.18	0.05	0.05	0.05
Sat Flow, veh/h	1781	5106	1547	1781	5239	29	3563	0	1517	452	1396	1411
Grp Volume(v), veh/h	124	1570	270	315	1309	717	384	0	202	45	0	56
Grp Sat Flow(s),veh/h/ln	1781	1702	1547	1781	1702	1864	1781	0	1517	1848	0	1411
Q Serve(g_s), s	8.9	32.5	15.5	22.6	37.3	37.3	12.7	0.0	16.2	3.0	0.0	5.0
Cycle Q Clear(g_c), s	8.9	32.5	15.5	22.6	37.3	37.3	12.7	0.0	16.2	3.0	0.0	5.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.24		1.00
Lane Grp Cap(c), veh/h	125	2185	662	315	1818	996	626	0	267	99	0	75
V/C Ratio(X)	0.99	0.72	0.41	1.00	0.72	0.72	0.61	0.00	0.76	0.46	0.00	0.74
Avail Cap(c_a), veh/h	125	2185	662	315	1818	996	1030	0	439	117	0	89
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	59.5	30.2	25.4	52.7	22.6	22.6	48.7	0.0	50.2	58.8	0.0	59.7
Incr Delay (d2), s/veh	77.1	2.1	1.9	51.1	2.5	4.5	0.4	0.0	1.7	1.2	0.0	18.7
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	6.7	13.6	6.0	14.5	15.2	17.2	5.7	0.0	6.3	1.5	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	136.5	32.3	27.2	103.8	25.1	27.1	49.1	0.0	51.8	60.0	0.0	78.4
LnGrp LOS	F	C	C	F	C	C	D	A	D	E	A	E
Approach Vol, veh/h		1964			2341			586			101	
Approach Delay, s/veh		38.2			36.3			50.0			70.2	
Approach LOS		D			D			D			E	

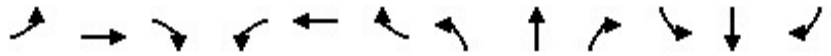
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	27.0	60.8		11.7	13.4	74.4		28.5				
Change Period (Y+Rc), s	4.4	6.0		4.9	4.4	* 6		6.0				
Max Green Setting (Gmax), s	22.6	39.0		8.1	9.0	* 53		37.0				
Max Q Clear Time (g_c+I1), s	24.6	34.5		7.0	10.9	39.3		18.2				
Green Ext Time (p_c), s	0.0	4.0		0.0	0.0	11.9		1.1				

Intersection Summary		
HCM 6th Ctrl Delay		39.3
HCM 6th LOS		D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



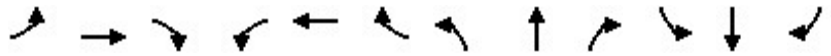
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1300	198	40	1890	30	133	10	50	30	10	10
Future Volume (veh/h)	30	1300	198	40	1890	30	133	10	50	30	10	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.97	1.00		0.85
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	1354	206	42	1969	31	139	10	52	31	10	10
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	39	1640	247	54	1931	30	840	62	322	61	27	27
Arrive On Green	0.02	0.53	0.53	0.03	0.54	0.54	0.24	0.24	0.24	0.03	0.03	0.03
Sat Flow, veh/h	1781	3087	465	1781	3578	56	3456	255	1324	1781	782	782
Grp Volume(v), veh/h	31	773	787	42	974	1026	139	0	62	31	0	20
Grp Sat Flow(s),veh/h/ln	1781	1777	1775	1781	1777	1858	1728	0	1579	1781	0	1563
Q Serve(g_s), s	2.2	46.2	47.8	3.0	69.1	69.1	4.1	0.0	4.0	2.2	0.0	1.6
Cycle Q Clear(g_c), s	2.2	46.2	47.8	3.0	69.1	69.1	4.1	0.0	4.0	2.2	0.0	1.6
Prop In Lane	1.00		0.26	1.00		0.03	1.00		0.84	1.00		0.50
Lane Grp Cap(c), veh/h	39	944	943	54	959	1003	840	0	384	61	0	54
V/C Ratio(X)	0.79	0.82	0.83	0.78	1.02	1.02	0.17	0.00	0.16	0.51	0.00	0.37
Avail Cap(c_a), veh/h	58	944	943	92	959	1003	840	0	384	61	0	54
HCM Platoon Ratio	1.00	1.00	1.00	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	0.37	0.37	0.37	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	62.3	24.9	25.2	61.6	29.5	29.5	38.2	0.0	38.2	60.7	0.0	60.4
Incr Delay (d2), s/veh	19.6	7.9	8.6	3.4	21.8	23.4	0.4	0.0	0.9	26.9	0.0	18.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	20.9	21.7	1.4	33.9	35.9	1.8	0.0	1.6	1.4	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	81.9	32.7	33.9	65.0	51.2	52.8	38.6	0.0	39.1	87.6	0.0	79.1
LnGrp LOS	F	C	C	E	F	F	D	A	D	F	A	E
Approach Vol, veh/h		1591			2042			201			51	
Approach Delay, s/veh		34.2			52.3			38.8			84.3	
Approach LOS		C			D			D			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.3	74.0		9.3	7.2	75.1		36.4
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		5.3
Max Green Setting (Gmax), s	6.6	* 66		4.4	4.2	67.7		31.1
Max Q Clear Time (g_c+I1), s	5.0	49.8		4.2	4.2	71.1		6.1
Green Ext Time (p_c), s	0.0	13.8		0.0	0.0	0.0		0.5

Intersection Summary	
HCM 6th Ctrl Delay	44.6
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	1210	60	94	1770	240	50	37	56	180	65	70
Future Volume (veh/h)	110	1210	60	94	1770	240	50	37	56	180	65	70
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	118	1301	65	101	1903	258	54	40	60	194	70	75
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	2091	900	124	2073	892	235	145	217	272	177	190
Arrive On Green	0.08	0.59	0.59	0.07	0.58	0.58	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1781	3554	1530	1781	3554	1530	1232	660	990	1281	809	867
Grp Volume(v), veh/h	118	1301	65	101	1903	258	54	0	100	194	0	145
Grp Sat Flow(s),veh/h/ln	1781	1777	1530	1781	1777	1530	1232	0	1649	1281	0	1677
Q Serve(g_s), s	8.4	30.4	2.3	7.2	61.5	10.8	5.0	0.0	6.5	19.0	0.0	9.5
Cycle Q Clear(g_c), s	8.4	30.4	2.3	7.2	61.5	10.8	14.5	0.0	6.5	25.4	0.0	9.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.60	1.00		0.52
Lane Grp Cap(c), veh/h	134	2091	900	124	2073	892	235	0	361	272	0	367
V/C Ratio(X)	0.88	0.62	0.07	0.81	0.92	0.29	0.23	0.00	0.28	0.71	0.00	0.39
Avail Cap(c_a), veh/h	134	2091	900	177	2073	892	251	0	383	285	0	384
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.43	0.43	0.43	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	58.6	17.1	11.3	58.7	23.9	13.4	48.9	0.0	41.5	52.1	0.0	42.7
Incr Delay (d2), s/veh	23.7	0.6	0.1	11.6	8.0	0.8	0.2	0.0	0.2	6.4	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	12.2	0.8	3.6	26.8	3.9	1.6	0.0	2.7	6.6	0.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	82.4	17.7	11.4	70.3	31.9	14.2	49.1	0.0	41.7	58.5	0.0	43.0
LnGrp LOS	F	B	B	E	C	B	D	A	D	E	A	D
Approach Vol, veh/h		1484			2262			154			339	
Approach Delay, s/veh		22.6			31.6			44.3			51.9	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.3	81.3		33.3	14.0	80.7		33.3
Change Period (Y+Rc), s	4.4	* 6		5.3	4.4	6.0		* 5.3
Max Green Setting (Gmax), s	12.7	* 71		29.3	9.6	73.4		* 30
Max Q Clear Time (g_c+I1), s	10.2	32.4		27.4	10.4	63.5		16.5
Green Ext Time (p_c), s	0.0	25.3		0.2	0.0	9.6		0.3

Intersection Summary	
HCM 6th Ctrl Delay	30.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	5.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	46	56	47	45	74	65
Future Vol, veh/h	46	56	47	45	74	65
Conflicting Peds, #/hr	10	10	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	55	67	57	54	89	78

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	360	104	0	0	121	0
Stage 1	94	-	-	-	-	-
Stage 2	266	-	-	-	-	-
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	639	951	-	-	1467	-
Stage 1	930	-	-	-	-	-
Stage 2	779	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	586	933	-	-	1453	-
Mov Cap-2 Maneuver	586	-	-	-	-	-
Stage 1	921	-	-	-	-	-
Stage 2	722	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	4.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	736	1453	-
HCM Lane V/C Ratio	-	-	0.167	0.061	-
HCM Control Delay (s)	-	-	10.9	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.2	-

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	80	12	5	12	27	84
Future Vol, veh/h	80	12	5	12	27	84
Conflicting Peds, #/hr	10	0	0	10	10	10
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	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	96	14	6	14	33	101

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	30	0	-	0	239	33
Stage 1	-	-	-	-	23	-
Stage 2	-	-	-	-	216	-
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	1583	-	-	-	749	1041
Stage 1	-	-	-	-	1000	-
Stage 2	-	-	-	-	820	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1568	-	-	-	688	1021
Mov Cap-2 Maneuver	-	-	-	-	688	-
Stage 1	-	-	-	-	929	-
Stage 2	-	-	-	-	812	-

Approach	EB	WB	SB
HCM Control Delay, s	6.5	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1568	-	-	-	913
HCM Lane V/C Ratio	0.061	-	-	-	0.146
HCM Control Delay (s)	7.4	0	-	-	9.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.5

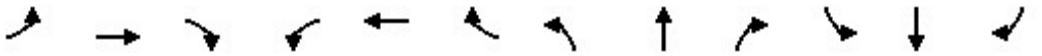
Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	36	54	132	65	41
Future Vol, veh/h	29	36	54	132	65	41
Conflicting Peds, #/hr	10	10	10	0	0	10
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	41	61	150	74	47

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	390	118	131	0	-	0
Stage 1	108	-	-	-	-	-
Stage 2	282	-	-	-	-	-
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	614	934	1454	-	-	-
Stage 1	916	-	-	-	-	-
Stage 2	766	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	574	916	1440	-	-	-
Mov Cap-2 Maneuver	574	-	-	-	-	-
Stage 1	865	-	-	-	-	-
Stage 2	758	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	2.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1440	-	724	-	-
HCM Lane V/C Ratio	0.043	-	0.102	-	-
HCM Control Delay (s)	7.6	0	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	540	40	790	430	25	60	99	970	22	48	31
Future Volume (veh/h)	62	540	40	790	430	25	60	99	970	22	48	31
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		0.96	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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	581	43	849	462	27	65	106	935	24	52	33
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	86	754	56	939	1527	89	83	543	878	34	277	176
Arrive On Green	0.05	0.23	0.23	0.27	0.45	0.45	0.05	0.29	0.29	0.02	0.26	0.26
Sat Flow, veh/h	1781	3345	247	3456	3404	198	1781	1870	1538	1781	1055	669
Grp Volume(v), veh/h	67	308	316	849	240	249	65	106	935	24	0	85
Grp Sat Flow(s),veh/h/ln	1781	1777	1815	1728	1777	1825	1781	1870	1538	1781	0	1724
Q Serve(g_s), s	4.1	17.9	18.0	26.1	9.5	9.6	4.0	4.7	32.0	1.5	0.0	4.2
Cycle Q Clear(g_c), s	4.1	17.9	18.0	26.1	9.5	9.6	4.0	4.7	32.0	1.5	0.0	4.2
Prop In Lane	1.00		0.14	1.00		0.11	1.00		1.00	1.00		0.39
Lane Grp Cap(c), veh/h	86	401	409	939	797	819	83	543	878	34	0	453
V/C Ratio(X)	0.78	0.77	0.77	0.90	0.30	0.30	0.78	0.20	1.07	0.71	0.00	0.19
Avail Cap(c_a), veh/h	236	474	485	1902	1233	1266	105	543	878	108	0	517
HCM Platoon Ratio	1.00	1.00	1.00	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	0.00	1.00
Uniform Delay (d), s/veh	51.8	40.0	40.0	38.7	19.4	19.4	51.9	29.4	24.3	53.7	0.0	31.5
Incr Delay (d2), s/veh	5.5	7.5	7.5	1.4	0.3	0.3	19.0	0.2	49.4	9.9	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	8.6	8.8	11.1	4.0	4.1	2.2	2.1	33.2	0.8	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.3	47.5	47.5	40.1	19.7	19.7	70.9	29.6	73.7	63.6	0.0	31.7
LnGrp LOS	E	D	D	D	B	B	E	C	F	E	A	C
Approach Vol, veh/h		691			1338			1106			109	
Approach Delay, s/veh		48.5			32.7			69.3			38.8	
Approach LOS		D			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	37.7	34.3	31.6	9.6	34.6	9.7	56.2
Change Period (Y+Rc), s	4.4	5.7	4.4	6.8	4.4	* 5.7	4.4	* 6.8
Max Green Setting (Gmax), s	6.7	32.0	60.6	29.4	6.5	* 33	14.6	* 76
Max Q Clear Time (g_c+I1), s	3.5	34.0	28.1	20.0	6.0	6.2	6.1	11.6
Green Ext Time (p_c), s	0.0	0.0	1.8	3.7	0.0	0.5	0.0	5.5

Intersection Summary	
HCM 6th Ctrl Delay	48.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1281	281	180	1103	202	170
Future Volume (veh/h)	1281	281	180	1103	202	170
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.96	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1392	305	196	1199	220	185
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1596	684	231	2225	852	391
Arrive On Green	0.45	0.45	0.13	0.63	0.25	0.25
Sat Flow, veh/h	3647	1523	1781	3647	3456	1585
Grp Volume(v), veh/h	1392	305	196	1199	220	185
Grp Sat Flow(s),veh/h/ln	1777	1523	1781	1777	1728	1585
Q Serve(g_s), s	33.1	12.9	10.0	17.8	4.8	9.3
Cycle Q Clear(g_c), s	33.1	12.9	10.0	17.8	4.8	9.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1596	684	231	2225	852	391
V/C Ratio(X)	0.87	0.45	0.85	0.54	0.26	0.47
Avail Cap(c_a), veh/h	1596	684	359	2525	852	391
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	23.3	17.7	39.7	9.8	28.3	30.0
Incr Delay (d2), s/veh	6.9	2.1	6.5	0.4	0.7	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.6	4.7	4.7	6.3	2.0	3.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.2	19.8	46.2	10.2	29.0	34.1
LnGrp LOS	C	B	D	B	C	C
Approach Vol, veh/h	1697			1395	405	
Approach Delay, s/veh	28.3			15.3	31.3	
Approach LOS	C			B	C	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	16.5	48.8				65.3	28.0
Change Period (Y+Rc), s	4.4	6.9				* 6.9	5.0
Max Green Setting (Gmax), s	18.8	41.9				* 66	23.0
Max Q Clear Time (g_c+I1), s	12.0	35.1				19.8	11.3
Green Ext Time (p_c), s	0.2	5.8				22.5	1.0

Intersection Summary	
HCM 6th Ctrl Delay	23.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Appendix D
Preparer Qualifications

Michael Huff, RCA

Principal

Michael Huff is founder and manager of Dudek's Urban Forestry/Fire Protection Planning team with 29 years' experience as a forester and fire protection planner. Mr. Huff specializes in management of community-wide and project-specific fire protection plans (FPPs), wildland–urban interface (WUI) fire management plans, wildfire hazard reduction projects, California Environmental Quality Act (CEQA) supporting technical documents, Oak Woodland impact and mitigation plans, urban and community forest management plans, forest and tree inventories, impact analysis studies, and tree hazard evaluations. Mr. Huff possesses considerable project issue resolution experience and focuses on working within the regulations to provide creative, cost-saving solutions to his clients. He routinely participates in public hearings, strategy sessions, and provides public presentations.



Michael Huff

Education

Northern Arizona University
BS, Forest Management, 1992

Certifications

Registered Consulting Arborist (RCA)

Certified Arborist, No. WE-4276A

San Diego County Department of Planning and Land Use (DPLU)-Approved Fire Protection Planner

Laguna Beach Fire Department-Approved Fire Protection Planner

Certified Wildland Fire Ecologist

Professional Affiliations

American Society of Consulting Arborists

National Fire Protection Association – International

California Fire Chief's Association – Fire Prevention Officers

Sample Project Experience

City of Santa Barbara Wildland Fire Evacuation Procedures Analysis, Santa Barbara Fire Department,Santa Barbara, California. Mr. Huff managed a multi-disciplined team of fire protection planners, retired fire operations professionals, fire behavior modelers, and traffic engineers to analyze three high-probability wildfire scenarios and the existing evacuation conditions. The Project was implemented to identify how evacuations during these wildfire scenarios could be made more efficient through road and traffic management improvements. Additionally, trigger thresholds were examined to determine when evacuations would need to be initiated given the wildfire scenarios and how that process could be improved. Temporary refuge sites were evaluated along with safety zones. Traffic engineers modeled congestion based on evacuation zone populations and helped define the types of pre- and during- emergency improvements and actions that would result in the ability to move more traffic from higher to lower exposure areas.

Point Molate Emergency Response Plans, Mixed Use Development, Argent Development, Richmond, Caliofrnia. Mr. Huff managed, wrote, reviewed, and coordinate the preparation of two emergency planning documents to satisfy project conditions of approval for the Point Molate project in Richmond, California. A Wildfire Emergency Response Plan was prepared that evaluated the potential wildfire risk for the proposed Point Molate mixed use community and made recommendations for addressing risk and providing for resident and fire department response. A second document, the Multi Hazard Emergency Response Plan, was prepared to address the most likely natural or human caused disasters and the Project's planned actions in response. This plan includes responses to earthquakes, tsunami, flooding, and other disasters and provides a framework for how the Project

would respond. Both emergency response plans include analysis and discussions of available response evacuation routes, discuss the potential for sheltering in place, and lay out mitigating measures that would be employed prior to these emergency situations as part of a pre-planning and readiness program. Mr. Huff presented at several public hearings to answer questions regarding the site's overall safety.

Paraiso Springs Resort Fire Protection and Evacuation Planning, Paraiso Springs Resort, LLC., Soledad, Monterey County, California. Mr. Huff managed this hot springs resort project and provided authorship of a fire safety plan, evacuation plan, and EIR wildfire section. Dudek's fire protection planning team performed a comprehensive review of the site's fire environment and developed approaches to address the hazards and reduce risk to acceptable levels. Mr. Huff provided support at several public hearings and answered questions regarding the site's safety for the planned use.

The Junipers Age-Restricted Residential Development, Lennar Homes, San Diego, California. Mr. Huff managed the preparation of a comprehensive Fire Protection Plan and Evacuation Plan for this 550 unit project. Dudek's fire specialists performed extensive analysis of the fire environment and documented the project's compliance with enhanced fire safety requirements. In addition, Dudek provided extensive analysis of the ability to evacuate the area based on existing conditions and post-project, enhanced conditions, noting that the project provides additional options and capacity, resulting in a safer area than current condition.

Laguna College of Art and Design (LCADD) Emergency Response and Evacuation Plan, Laguna College of Art and Design, Laguna Beach, California. Mr. Huff managed and authoried the EREP for LCADD's several campus locations within Laguna Canyon. Chapters address the top several potential natural disasters or human-caused emergencies with appropriate actions that should be taken prior to, during and following each. The EREP helps LCADD manage and mitigate potential risk at each of its campus locations through proactive measures.

Ocean Breeze Residential Development Wildfire Evacuation Plan, Helios Property Solutions, Bonsall, California. Dudek provide a comprehensive evacuation plan for this 396 single family home development in a very high fire hazard severity zone. The evacuation plan calculated the project area's evacuation timing currently and with the project and laid out steps the project would take to result in a prepared and aware population. The evacuation plan also contemplated the ability to refuge residents and area citizens on-site at various locations if there was not time to evacuate.Mr. Huff managed the project, wrote the evacuation plan and presented it at the local planning group.

Valiano Residential Community Evacuation Plan, Integral Communities, San Marcos, California. Mr. Huff managed and was primary author of an evacation plan for this 325 unit residential project. The evacuation plan focused on determing the project's ability to evacuate given available evacuation routes and planned enhancements. The road capacities were evaluated against the project's population numbers to determine the timing to move all residents out of the area. The evacuation plan was accepted by the local fire agency.

Bonsall Unified School District New High School Fire Protection and Evacuation Plan, Bonsall, California. Mr. Huff was lead author, fire protection planner, and manager of this project to assist the BUSD with fire safe planning for a new high school within a high fire hazard severity zone. The Fire Protection Plan documented the fire environment, related hazards and overall fire risk while specifying safety features and measures that would result in low overall fire risk and the ability to shelter in place if considered safer than evacuating. Mr. Huff also provided input on the EIR's wildfire chapter, responses to comments and overall fire and evacuation related planning.