## Appendices

## Appendix A. US 36 / SH 66 InterGovernmental Agreement

# INTERGOVERNMENTAL AGREEMENT <br> AMONG <br> THE TOWN OF LYONS, THE CITY OF LONGMONT, THE TOWN OF MEAD, THE TOWN OF FIRESTONE, THE COUNTY OF BOULDER, THE COUNTY OF WELD, AND <br> THE STATE OF COLORADO DEPARTMENT OF TRANSPORTATION 

THIS AGREEMENT (hereinafter referred to as the "Agreement") is entered into effective as of the date defined below by and among the Cities/Towns of Lyons, Longmont, Mead, and Firestone and the Counties of Boulder and Weld (hereinafter referred to collectively as the "Cities and Counties"), and the State of Colorado, Department of Transportation (hereinafter referred to as the "Department"), said parties being referred to collectively herein as the "Agencies."

## RECITALS:

WHEREAS, The Agencies are authorized by the provisions of Article XIV, Section 18(2)(a), Colorado Constitution, and Sections 29-1-201, et. seq., C.R.S., to enter into contracts with each other for the performance of functions that they are authorized by law to perform on their own; and

WHEREAS, Each Agency is authorized by Section 43-2-147(1)(a), C.R.S., to regulate access to public highways within its jurisdiction; and

WHEREAS, The coordinated regulation of vehicular access to public highways is necessary to maintain the efficient and smooth flow of traffic without compromising pedestrian and alternative modes of transportation circulation, to reduce the potential for traffic accidents, to protect the functional level and optimize the traffic capacity, to provide an efficient spacing of traffic signals, and to protect the public health, safety and welfare; and

WHEREAS, The Agencies desire to provide for the coordinated regulation of vehicular access for the section of United States Highway 36 between McConnell Drive (M.P 21.00) and Highland Drive (M.P. 21.764), and the section of Colorado State Highway 66 between Highland Drive (M.P. 28.693) and Weld County Road 19 (M.P. 47.912) (hereinafter referred to as the "Segment"), which is within the jurisdiction of the Agencies; and

WHEREAS, The Agencies desire to collaborate to assure all transportation modes including pedestrian, bicycle, vehicle, and mass transit are given sufficient consideration and adequate funding support with each transportation improvement project that affects access within the identified project limits; and

WHEREAS, The Agencies are authorized pursuant to Section 2.12 of the 2002 State Highway Access Code, 2 C.C.R. 601-1 (the "Access Code") to achieve such objective by written agreement among themselves adopting and implementing a comprehensive and mutually acceptable highway access control plan for the Segment for the purposes recited above; and

WHEREAS, The development of this Access Control Plan adheres to the requirements of the Access Code, Section 2.12.

NOW THEREFORE, for and in consideration of the mutual promises and undertakings herein contained, the Agencies agree as follows:

1. The Access Control Plan dated March 2020 for the Segment (hereinafter referred to as the "Access Control Plan") is attached hereto as Exhibit A and incorporated herein.
2. The Agencies shall regulate access to the Segment in compliance with the Access Control Plan, the Highway Access Law, section 43-2-147, C.R.S., (the "Access Law") and the applicable sections of the Access Code. Vehicular access to the Segment shall be permitted when such access is in compliance with the Access Control Plan, the Access Law and the applicable sections of the Access Code.
3. Accesses that were in existence in compliance with the Access Law prior to the effective date of this Agreement may continue in existence until such time as a change in the access is required by the Access Control Plan or in the course of highway reconstruction. When closure, modification, or relocation of access is necessary or required, the Agency(ies) having jurisdiction shall utilize appropriate legal process to affect such action.
4. Actions taken by any Agency with regard to transportation planning and traffic operations within the areas described in the Access Control Plan shall be in conformity with this Agreement. Per Section 2.12 (3) of the Access Code, design waivers may be approved if agreed upon by the Agencies having jurisdiction.
5. Parcels of real property created after the effective date of this Agreement that adjoin the Segment shall not be provided with direct access to the Segment unless the location, use and design thereof conform to the provisions of this Agreement.
6. This Agreement supersedes and controls all prior written, oral agreements, and representations of the Agencies and constitutes the whole agreement between them with respect to regulating vehicular access to the Segment. No additional or different oral representation, promise or agreement shall be binding on either Agency. This agreement may be amended or terminated only in writing executed by the Agencies with express authorization from their respective governing bodies or legally designated officials. Upon thirty-day notice, any party to this Agreement may withdraw from the Agreement in writing, without consent of the other party. To the extent the Access Control Plan, attached as Exhibit A to this Agreement, is modified by a change, closure, relocation, consolidation or addition of an access, the Agencies may amend the attached Exhibit A so long as the amendment to the Access Control Plan is executed in writing and amended in accord with the Access Law and Access Code. The Access Control Plan Amendment Process has been included in Exhibit B. This Agreement is based upon and is intended to be consistent with the Access Law and the Access Code as now or hereafter constituted. An amendment to either the Access Law or the Access Code that becomes effective after the effective date of this Agreement and that conflicts irreconcilably with an express provision of this Agreement may be grounds for revision of this Agreement.
7. This Agreement does not create any current financial obligation for any Agency. Any future financial obligation of any Agency shall be subject to the execution of an appropriate encumbrance document, where required. Agencies involved in or affected by any particular or site-specific undertaking provided for herein will cooperate with each other to agree upon a fair and equitable allocation of the costs associated therewith, however, notwithstanding any provision of this Agreement, no Agency shall be required to expend its public funds for such undertaking without the express prior approval of its governing body, director, and if required, state controller. All financial obligations of the

Agencies hereunder shall be contingent upon sufficient funds therefore being appropriated, budgeted, and otherwise made available as provided by law.
8. Should any one or more sections or provisions of this Agreement be judicially determined to be invalid or unenforceable, such judgment shall not affect, impair or invalidate the remaining provisions of this Agreement, the intention being that the various provisions hereof are severable.
9. By signing this Agreement, the Agencies acknowledge and represent to one another that all procedures necessary to validly contract and execute this Agreement have been performed, and that the persons signing for each Agency have been duly authorized by such Agency to do so.
10. No portion of this Agreement shall be deemed to constitute a waiver, express or implied, of any of the immunities, rights, benefits, protections or other provisions of the Colorado Governmental Immunity Act, C.R.S. Section 24-10-101, et. seq. Nor shall any portion of this Agreement be deemed to have created a duty of care that did not previously exist with respect to any person not a party to this Agreement.
11. It is expressly understood and agreed that the enforcement of the terms and conditions of this Agreement, and all rights of action relating to such enforcement, shall be strictly reserved to the undersigned parties and nothing in this Agreement shall give or allow any claim or right of action whatsoever by any other person not included in this Agreement. It is the express intention of the undersigned parties that any entity other than the undersigned parties receiving services or benefits under this Agreement shall be an incidental beneficiary only.
12. This Agreement may be executed in counterparts, each of which shall be deemed an original and all of which together shall constitute one original Agreement. Facsimile signature shall be as effective as an original signature.
13. Effective Date. The Effective Date of this Agreement shall be the date of the last party to sign.

IN WITNESS WHEREOF, the Agencies have executed this Agreement effective as of the day and year last above written.

Town of Lyons, Colorado

Mayor, Town of Lyons

APPROVED AS TO FORM:
Town Attorney $\quad$ Date

City of Longmont, Colorado

Mayor, City of Longmont

APPROVED AS TO FORM:

City Attorney Date

Town of Mead, Colorado

Mayor, Town of Mead

APPROVED AS TO FORM:

## ATTEST:

## Town Clerk

ATTEST:

City Clerk

ATTEST:

Town Clerk

## Town of Firestone, Colorado

Mayor, Town of Firestone

APPROVED AS TO FORM:
Town Attorney Date

County of Boulder, Colorado

Commissioner, County of Boulder

APPROVED AS TO FORM:

County of Weld, Colorado

Commissioner, County of Weld

APPROVED AS TO FORM:
County Attorney Date

## State of Colorado

Department of Transportation
Region 4 Regional Transportation Date
Director

ATTEST:

## City Clerk

## ATTEST:

County Clerk Date

## ATTEST:

County Clerk Date

CONCUR:
Statewide Access Program Date
Administrator

# "EXHIBIT - A" <br> UNITED STATES HIGHWAY 36 AND COLORADO STATE HIGHWAY 66 (US 36 MP 21.00-MP 21.764 AND CO 66 MP 28.693-MP 47.912) ACCESS CONTROL PLAN <br> March 2020 

## Town of Lyons, City of Longmont, Town of Mead, Town of Firestone, Boulder County, Weld County, and the State of Colorado Department of Transportation

## I. PURPOSE

The purpose of this Access Control Plan (ACP) is to provide the Agencies with a comprehensive roadway access control plan for the pertinent segment of United States Highway 36 between McConnell Drive (M.P 21.00) and Highland Drive (M.P. 21.764), as well as the section of Colorado State Highway 66 between Highland Drive (M.P. 28.693) and Weld County Road 19 (M.P. 47.912).

## II. AUTHORITY

The development of this Access Control Plan was completed pursuant to the requirements of the Access Code, Section 2.12, and adopted by the attached Agreement.

## III. RESPONSIBILITIES

It is the responsibility of each of the Agencies to this Agreement to ensure that vehicular access to the Segment shall only be in conformance with this Agreement. The cost of access improvements, closures and modifications shall be determined pursuant to section 43-2-147(6) C.R.S., the Agreement, and this Access Control Plan. All access construction shall be consistent with the design criteria and specifications of the Access Code.

## IV. EXISTING AND FUTURE ACCESS

A. The attached table provides a listing of each existing and future access point in the Segment. For each access point the following information is provided: location, description of the current access status, the future configuration (Access Plan), and the condition(s) for change. All access points along United States Highway 36 and Colorado State Highway 66 are defined by the approximate Department reference point (in hundredths of a mile) based on CDOT Highway Segment Description Mileposts. All access points are located at the approximate centerline of the access ( $+/-50$ feet) unless otherwise noted in the Access Control Plan and associated tables. Exhibits graphically illustrating the Access Plan are attached for reference. In case of discrepancy, the Access Control Plan Table takes precedence.
B. All highway design and construction will be based on the assumption that the Segment will have a sufficient cross section to accommodate all travel lanes and sufficient right-of-way to accommodate longitudinal installation of utilities.

## V. ACCESS MODIFICATION

Any proposed access modification including but not limited to an addition must be in compliance with this Agreement and the current Access Code design standards unless the Agency or Agencies having jurisdiction approves a design waiver under the waiver subsection of the Code.

Any access described in this section, which requires changes or closure as part of this Agreement or if significant public safety concerns develop, including but not limited to, when traffic operations have deteriorated, a documented accident history pattern has occurred, or when consistent complaints are received, may be closed, relocated, or consolidated, or turning movements may be restricted, or the access may be brought into conformance with this Access Control Plan, when a formal written request

## Exhibit A

United States Highway 36 and Colorado State Highway 66
Access Control Plan
documenting reasons for the change is presented by the Agency(ies) having jurisdiction, with Department concurrence, or in the opinion of the Department, with the appropriate jurisdictional agency's concurrence, any of the following conditions occur:
a. The access is determined to be detrimental to the public's health, safety and welfare;
b. the access has developed an accident history that in the opinion of the Agency(ies) having jurisdiction or the Department is correctable by restricting the access;
c. the access restrictions are necessitated by a change in road or traffic conditions;
d. there is an approved (by the Agency(ies) having jurisdiction) change in the use of the property that would result in a change in the type of access operation as defined by the Access Code;
e. a highway reconstruction project provides the opportunity to make highway and access improvements in support of this Access Control Plan; or
f. the existing development does not allow for the proposed street and road network.

Access construction shall be consistent with the design and specifications of the current State Highway Access Code.

# "EXHIBIT - B" <br> UNITED STATES HIGHWAY 36 AND COLORADO STATE HIGHWAY 66 (US 36 MP 21.00-MP 21.764 AND CO 66 MP 28.693-MP 47.912) ACCESS CONTROL PLAN AMENDMENT PROCESS 

1. A request for an amendment of the Access Control Plan must be initiated by one of the Agencies. The initiating Agency will be responsible for the costs associated with completing and documenting the Amendment.
2. Amendment requests must be submitted to and agreed upon by the affected jurisdictions: Department staff, City staff and/or County staff of the Intergovernmental Agreement, depending on the property location. The property or properties that are directly affected by the proposed amendment must be located within a jurisdiction's boundaries or within the boundaries of a legally recognized planning area, such as a Growth Management Area, for the jurisdiction to be considered an affected jurisdiction.
3. An amendment request shall include hard copy and electronic files of the following:
a) Description of changes to the Access Control Plan requested
b) Justification for the Amendment
c) Traffic Impact Study or analysis, depending upon the magnitude of the change requested. Any affected jurisdiction of the Intergovernmental Agreement can request this supporting documentation.
d) Amended Access Control Plan Table
e) Amended Access Control Plan Exhibit(s)/Map(s)
4. The Agencies shall review the submittal concurrently for completeness and for consistency with the access objectives, principles, and strategies described in the Colorado State Highway 66 Access Control Plan (March 2020) executive summary and Appendix for this corridor and with the design criteria and permit process of the State Highway Access Code.
5. Prior to approval of an amendment, all property owners directly affected by the amendment must be notified in writing and be given thirty (30) calendar days to state any objections. If an objection is lodged, approval of the amendment must be referred to the Agencies respective governing bodies. Depending on the magnitude of the change requested, a public meeting may be required. Any affected jurisdiction of the Intergovernmental Agreement can request a public meeting. The Agency initiating the amendment request shall be responsible for all public notification and public process, unless otherwise agreed to by the Agencies.
6. Amendments must be approved in writing by the following authorized designated officials: Regional Transportation Director for the Department, the City Manager and/or County Manager. At the authorized designated official's discretion, approval may be referred to their respective governing bodies: Chief Engineer for the Department and local elected officials for the City and County.
7. A written amendment must include the following:
a) Declarations page defining the parties, effective date, and details of the amendment. Refer to sample amendment attached to this Exhibit as Exhibit C.

## Exhibit B

United States Highway 36 and Colorado State Highway 66
Access Control Plan Amendment Process
b) Signatures page for authorized designated officials. Refer to Exhibit C.
c) Amended Access Control Plan table and exhibits. Table and exhibits should be replaced in their entirety.

A signed amendment must be attached to the original Intergovernmental Agreement.
8. If a minimum of $66 \%$ (aka, five) of the affected jurisdictions of the Intergovernmental Agreement do not come to agreement on a proposed amendment, the content of the original Access Control Plan remains intact.

## "EXHIBIT - C" <br> SAMPLE AMENDMENT TO INTERGOVERNMENTAL AGREEMENT AMONG THE TOWN OF LYONS, THE CITY OF LONGMONT, THE TOWN OF MEAD, THE TOWN OF FIRESTONE, THE COUNTY OF BOULDER, THE COUNTY OF WELD, AND THE STATE OF COLORADO DEPARTMENT OF TRANSPORTATION <br> DATED

## WHEREAS:

The Town of Lyons, the City of Longmont, the Town of Mead, the Town of Firestone, the County of Boulder, and the County of Weld (hereinafter referred to collectively as the "Cities and Counties") and the State of Colorado, Department of Transportation (hereinafter referred to as the "Department"), said parties being referred to collectively herein as the "Agencies", entered into an Agreement on $\qquad$
, 2020 to adopt an Access Control Plan dated March, 2020 for the section of United States Highway
36 between McConnell Drive (M.P 21.00) and Highland Drive (M.P. 21.764), and the section of Colorado State Highway 66 between Highland Drive (M.P. 28.693) and Weld County Road 19 (M.P. 47.912) (hereinafter referred to as the "Segment").

The Agencies desire to amend this Agreement in accordance with the attached table for the Segment.
NOW, THEREFORE, the Agencies do hereby agree:
The Agreement and the terms and conditions therein shall remain unchanged other than those sections and exhibits listed below:

The attached table and exhibits for United States Highway 36 and Colorado State Highway 66 in Exhibit A shall be replaced with the table attached to this Amendment.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the day and year written above:

## Town of Lyons, Colorado

Town Administrator Date

City of Longmont, Colorado

City Manager Date

Town of Mead, Colorado

Town Manager
Date

## Town of Firestone, Colorado

Town Manager Date

## County of Boulder, Colorado

County Manager Date

County of Weld, Colorado
County Manager Date

## State of Colorado, Department of Transportation

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## Appendix B. Existing Access Maps





Parcel Boundary/ ROW Boundary
Municipal Boundary

O Milepost
Full Movement (Signalized)
Full Movement (Unsignalized)

- 3/4 Movement
$\times$ Access Closed
$\triangle$ Right-in, Right-out only
Emergency Access Only
At-Grade Rail Crossing

Ave ${ }^{\text {SH }}$ En Planning and





Parcel Boundary/ ROW Boundary
Municipal Boundary

## Floodplain

O Milepost
Full Movement (Signalized) Full Movement (Unsignalized)
-3/4 Movement
$\triangle$ Right-in, Right-out only Emergency Access Only
At-Grade Rail Crossing
$X$ Access Closed
y
$+$





SH66 ACP - Existing Access Configuration

Rivers/ Streams
Floodplain
Milepost
Parcel Boundary/ ROW Boundary
Full Mov
nt (Signalized)
Full Movement (Unsignalized)

3/4 Movement
$\times$ Access Closed
$\triangle$ Right-in, Right-out only
Emergency Access Only
At-Grade Rail Crossing

A

## Map Sheet 10

*Note: Map Sheets may overlap




SH66 ACP - Existing Access Configuration

Floodplain
O Milepost
Parcel Boundary/ ROW Boundary
Municipal Boundary

Full Movement (Signalized)
Full Movement (Unsignalized)

- 3/4 Movement
$\triangle$ Right-in, Right-out only
Emergency Access Only
At-Grade Rail Crossing

- 3/4 Movement
$\triangle$ Right-in, Right-out only
Emergency Access Only
At-Grade Rail Crossing

SH66 ACP - Existing Access Configuration


Legend
Rivers/ Streams
Parks/ Open Space
Parcel Boundary/ ROW Boundary
Municipal Boundary

Floodplain
O Milepost
Full Movement (Signalized)
Full Movement (Unsignalized)
$\triangle$ Right-in, Right-out only Emergency Access Only

At-Grade Rail Crossing

X Access Closed
$x$ -者



SH66 ACP - Existing Access Configuration Map Sheet 14




SH66 ACP - Existing Access Configuration
nn Rivers/Streams
Parks/ Open Space
Parcel Boundary/ ROW Boundary
Municipal Boundary
-
Milepost
full (Signalized) Full Movement (Unsignalized)






Milepost
Full Movement (Signalized)
Full Movement (Unsignalized)

- 3/4 Movement
$\triangle$ Right-in, Right-out only Emergency Access Only

At-Grade Rail Crossing
$\times$ Access Closed
Access

A

- Existing Access Configuration

Map Sheet 22
*Note: Map Sheets may overlap
Actyy $\begin{aligned} & \text { SH } \\ & \text { Environmental Linkages Study }\end{aligned}$


## Appendix C. Public Involvement Material

## C.1. Open House 1 Postcard Notification

\& Environmental Linkages (PEL) study and ACP from
Lyons to Weld County Road 19. These meetings are a continuation of the study that began in 2017. You received this notice because your address is within $1 / 2$ mile of the project corridor. However, we want input from the greater community, so please invite neighbors and community members.
*Both meetings will provide the same content.

> Next Steps:
> Late Spring 2019-Share \& present draft ACP for public input

summer 2019 - Share final PEL \& ACP
to public to public questionnaire and webmap. For information and to learn more about the
project, visit: https://www.codot.gov/library/studies/co-66-pel
 transportation alternatives and learn about CDOT's risk and resiliency
 will make recommendations for future changes to the location and design of driveways and intersections.
Thursday, April 18, 2019 | 4:30 to 7:30 p.m.* Longs Peak Middle School 1500 14th Avenue
Longmont, CO 80501 Weld County Southwest Services Complex
4209 County Road $241 / 2$ Longmont, CO 80504 Longs Peak

Requests for communication assistance or reasonable accommodations for special needs can be made by contacting the project prior to the meeting at 720-200-8978.

Tuesday, April 16, 2019 | 4:30 to 7:30 p.m.*


The Colo

CDOT
C.2. Open House 2 Postcard Notification and Boards
The Colorado Department of Transportation (CDOT) is hosting an Open House to present the Draft SH 66 Access Control Plan (ACP). This plan is related but separate from the overall SH 66 Planning and Environmental Linkages Study from Lyons to Weld County Road 19. The ACP is assessing all existing and proposed intersections and driveways along the highway. The ACP will include recommendations for changes to the location and design of access points to improve safety and the movement of all forms of transportation. The recommendations of the plan will be gradually implemented over time as funding becomes available, as redevelopment occurs, and as safety needs arise. What changes to access could the plan include?

- Consolidate, close, and/or move access points
- Restrict certain movements
- Provide access using alternative routes such as frontage roads
- Recommend potential locations for traffic signals, roundabouts,
- Recommend potential locations for traffic signals, roundabouts, or interchanges
How can I get involved to help develop a successful Access Control Plan?
Attend the Open House on July 25th
- Learn about the methods and benefits of access management
- Fill out a comment form at the Open House or on the project's website: https://www.codot.gov/library/studies/co-66-pel Input received at the Open House and from the website will be used to develop the Final Access Control Plan scheduled to be adopted
in fall, 2019 . in fall, 2019.
Your attendance and input are needed!



[^1]YOU'RE INVITED


Thursday, July 25, 2019 | Anytime from 4:30 to 7:00 p.m Longmont Senior Center, Room D \& E

Longmont, CO 80501
Requests for communication assistance or reasonable accommodations for special needs can be made by contacting the project prior to the Open House at 720-200-8978.

# We <br>  to the SH 66 <br> <br> Access Control Plan <br> <br> Access Control Plan <br> <br> Open House <br> <br> Open House July 25, 2019 

## Thank you for attending!

Purpose of tonight's meeting:

- Present the Access Control Plan's purpose, goals, and study process
- Present the draft Access Control Plan
- Gather your comments regarding the proposed recommendations



## COLORADO

Department of Transportation

## What Is an Access Control Plan?

Any intersection or driveway along a roadway is called an access point

- At access points there is a potential for conflicts between all modes of transportation (vehicle, pedestrian, and bicycle) compromising the overall safety for travelers
- Vehicles turning into and out of access points can cause other vehicles to slow down, resulting in delay, congestion, or crashes
An Access Control Plan:
- Determines what access points will be allowed
- Establishes where accesses will be located
- Determines what kind of traffic movements will be allowed at each access
- Identifies alternative access routes and circulation as necessary
- Ensures each abutting property has access directly to SH 66 or to local roadways
- Is a long-range vision for the corridor
- Will not determine the future number of lanes or design features of SH 66

Implementation of the SH 66 Access Control Plan will occur in phases or incrementally over time based on:

- Safety needs
- The development and redevelopment process
- Available funding
- Traffic needs


## $\square$ There are no planned projects or identified funding that would change existing access



## Overview

## What are the goals of this Access Control Plan?

Identify improvements to the local transportation network that promote safety for all modes of transportation
$\square$ Blend the corridor vision from the PEL with the requirements of the CDOT State Highway Access Code
$\square$ Assist future development and redevelopment along SH 66 by identifying the locations and type of access

To provide efficient movement for all modes of transportation along SH 66

## Why does SH 66 need an Access Control Plan?

SH 66 has 373 existing access points (driveways and intersections) within the study area limits from Lyons (McConnell Dr) to WCR 19, which is an average of nearly 19 accesses per mile

Controlling the number of access points on SH 66:

- Reduces conflict points where a crash may occur on the highway. This is applicable not only for vehicles, but also for pedestrians and bicycles having to cross multiple driveways on the corridor
- Creates fewer locations for vehicles to brake or turn onto or off the highway resulting in more efficient travel for through traffic
- Makes the corridor more visually appealing to drivers and visitors by reducing the number of driveways

1 SH 66 Access Control Plan

Existing Access Summary

| S | Number of Accesses |  |  |  |  |  | Segment <br> Length (miles) | Access <br> Density <br> (\#/mile) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Public |  |  | Private |  | Total |  |  |
|  | FM | PM | Other | FM | PM |  |  |  |
| McConnell Dr to 87th St | 33 | 0 | 0 | 112 | 12 | 160 | 5.8 | 28 |
| 87th St to County Line Road | 23 | 2 | 2 | 51 | 5 | 83 | 4.8 | 17 |
| County Line Road to Weld County Rd 7 | 11 | 0 | 2 | 34 | 0 | 47 | 2.8 | 17 |
| Weld County Rd 7 to Weld County Rd 11 | 14 | 1 | 0 | 7 | 0 | 22 | 1.8 | 12 |
| Weld County Rd 11 to Weld County Rd 19 | 23 | 0 | 0 | 38 | 0 | 61 | 3.9 | 15 |
| Totals | 104 | 3 | 4 | 242 | 20 | 373 | 19.2 | 18 |

NOTE: Public accesses are named roads or right of ways maintained by CDOT, County, or Town/City

## Current \& Future Traffic Volumes

|  | Existing <br> Average Daily <br> Traffic <br> Volumes | 2040 Projected <br> Average Daily <br> Traffic <br> Volumes | Increase |
| ---: | :---: | :---: | :---: |
| McConnell Dr to 87th St | 14,000 | 16,000 | $14 \%$ |
| 87th St to County Line Road | 27,000 | 38,950 | $44 \%$ |
| County Line Road to Weld County Rd 7 | 23,350 | 30,000 | $28 \%$ |
| Weld County Rd 7 to Weld County Rd 11 | 23,600 | 33,200 | $41 \%$ |
| Weld County Rd 11 to Weld County Rd 19 | 11,900 | 15,000 | $26 \%$ |

Without an access control plan visitors, residents, property owners, and businesses along the SH 66 corridor could experience:

Greater number of crashes involving vehicles, pedestrians, or bicyclists
■ Increased traffic congestion, resulting in higher levels of pollution and more delays
■ A loss of visual appeal along the roadway, which may result in a loss of visitor stops and economic impacts for business owners


SH 66 Access Control Plan


## Access Conversion with Median Treatment <br> - Restrict some or all turning movements Reduce the number of conflicts $\square$ between left turning vehicles and through vehicles on the highway

## Access Relocation

- Access to local properties through secondary roads
- Reduce the number of access locations where vehicles may enter or exit the highway
■ Reduce the number of conflict points



## Access Realignment

■ Align opposite approaches
■ Create a more traditional intersection design


## Access Consolidation

■ Consolidate adjacent access points into one location

- The number of conflict points are reduced



## Parallel Access Route

$\square$ Provide access to properties via a new access road (such as a frontage road)

- Reduces the number of access points along the highway


## Types of Accesses

## Right-in, Right-out

■ Only right turns are allowed

- Traffic median prevents left turns and straight movements - these movements must be completed at another intersection



## 3/4 Movement

Right-in, right-out, and left-in are allowed

- Traffic median prevents left-out and straight movements - these movements must be completed at another intersection



## Full Movement/Roundabout



## Grade-Separated

■ All movements in all directions are allowed
■ Some movements will occur at-grade and may require a traffic signal
■ May require the need to close nearby access

## Access Control Plan Process

Develop Draft ACP based on PEL recommendations, input from local agencies, and CDOT

Revise Access Control Plan based on input from local agencies, the public, and final PEL recommendations

Accept the final plan

Specify how elements of the plan can be changed in the future

Prepare, sign, and adopt an Intergovernmental Agreement between Town of Lyons, City of Longmont, Town of Mead, Town of Firestone, Boulder County, Weld County, and CDOT

Report outcomes to the Colorado Transportation
Commission and get approval from the CDOT
State Access Manager so the plan becomes law

Continuing coordination between Town of Lyons, City of Longmont, Town of Mead, Town of Firestone, Boulder County, Weld County, and CDOT to ensure proper implementation of the plan in the future

## What are the Expected Benefits of the SH 66 Access Control Plan?

The following is a summary of the potential improvements and benefits when the Access Control Plan is implemented:

## Improve Safety for All Modes of Transportation

$\square$ The potential of high-speed rear-end, broadside, and sideswipe accidents between vehicles is reduced

- Future locations where pedestrian and bicyclists can cross the highway at a traffic signal are identified

■ Opportunities to build sidewalks/paths are included

## Improve Traffic Flow

$\square$ Greater spacing of accesses reduces congestion caused by vehicles turning onto and off of SH 66

## Reduce Traffic Conflicts

Restricting the types of access allowed results in fewer conflict points between modes of transportation

## Provide Adequate Access to Adjacent Land Uses

- All properties have access to SH 66 or local roads

■ Better use of the secondary street system or shared access locations
The recommended Access Control Plan meets the established goals for the project by improving traffic flow, reducing the number of conflicts, improving safety for all modes of transportation, and providing access to the adjacent land uses.

| SH 66 Roadway Segment | Total Existing | Number of Accesses with ACP Implemented |  |  |  |  |  | Segment Length (miles) | Access <br> Density <br> (\#/mile) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Public |  |  | Private |  | Total |  |  |
|  |  | FM | PM | Other | FM | PM |  |  |  |
| McConnell Dr to 87th St | 160 | 9 | 7 | 0 | 1 | 19 | 36 | 5.8 | 6 |
| 87th St to County Line Road | 83 | 9 | 13 | 2 | 2 | 3 | 29 | 4.8 | 6 |
| County Line Road to Weld County Rd 7 | 47 | 6 | 3 | 2 | 0 | 7 | 18 | 2.8 | 6 |
| Weld County Rd 7 to Weld County Rd 11 | 22 | 7 | 4 | 0 | 1 | 1 | 13 | 1.8 | 7 |
| Weld County Rd 11 to Weld County Rd 19 | 61 | 12 | 2 | 2 | 4 | 3 | 23 | 3.9 | 6 |
| Totals | 373 | 43 | 29 | 6 | 8 | 33 | 119 | 19.2 | 6 |
|  | NOTE: Public Private FM $=f$ $\mathrm{PM}=\mathrm{p}$ Other | access <br> access <br> ull mov <br> partial <br> = railro | are nar ses inclu ement moveme ad cross | med roads de business <br> ing | r right and re | of ways idential | maintained driveways. | by CDOT, County, | or Town/City |

## Conflict Points



SINGLE-LANE ROUNDABOUT ACCESS


## C.3. Open House 3 Postcard Notification and Boards

Wednesday, September 25, 2019 4:30 to 7:30 p.m.* Weld County Southwest Service Complex 4209 County Road $241 / 2$
Longmont, CO 80504 4209 County Road $241 / 2$
Longmont, CO 80504

Thursday, September 26, 2019 4:30 to 7:30 p.m.* Longs Peak Middle School 1500 14th Avenue

Longmont, CO 80501
Attendees will be able to view and provide feedback on:

- The RECOMMENDED projects along the entire project corridor
- The potential environmental impacts associated with each
recommendation
- List of future access changes
CDOT will also be accepting public feedback through an online
Attendees will be able to view and provide feedback on:
- The RECOMMENDED projects along the entire project corridor
- The potential environmental impacts associated with each
recommendation
- List of future access changes
CDOT will also be accepting public feedback through an online
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- The potential environmental impacts associated with each
recommendation
- List of future access changes
CDOT will also be accepting public feedback through an online
Attendees will be able to view and provide feedback on:
- The RECOMMENDED projects along the entire project corridor
- The potential environmental impacts associated with each
recommendation
- List of future access changes
CDOT will also be accepting public feedback through an online questionnaire. For more information and to learn about the project, visit: questionnaire. For more information and to learn about the project, visit:
https://www.codot.gov/library/studies/co-66-pel

Requests for communication assistance or reasonable accommodations for special needs can be made by calling 720-200-8978 prior to the meeting.
The Colorado Department of Transportation (CDOT) is hosting a final set of public meetings for the SH 66 Planning \& Environmental Linkages (PEL) study and Access Control Plan (ACP) from Lyons to Weld County Road 19. These meetings will be the final chance to review planning documents and provide feedback before the PEL and ACP are finalized in late 2019. You received this notice because your address is within $1 / 2$ mile of the project corridor. However, we want input from the greater community, so please invite neighbors and community members. *Both meetings will provide the same content.


"

## $1600^{2 \times 5}$


CDOT

## Welcome <br> $$
\begin{aligned} & \text { to the } \\ & \text { SH } 66 \end{aligned}
$$

Planning and Environmental Linkages Study and Access Control Plan

# Public Meeting SEPTEMBER 25 \& 26, 2019 

Thank you for attending! We are pleased you are here to hear more about the SH 66 Corridor! We are eager to share with you the future vision for the corridor!

How to get the most out of this meeting:

- View the displays and talk with our project team members to learn more and share your ideas
- Participate in the interactive activities
- Fill out a project comment card and drop it in the box



## COLORADO

Department of Transportation

## What Is an Access Control Plan?

Any intersection or driveway along a roadway is called an access point

- At access points there is a potential for conflicts between all modes of transportation (vehicle, pedestrian, and bicycle) compromising the overall safety for travelers
- Vehicles turning into and out of access points can cause other vehicles to slow down, resulting in delay, congestion, or crashes
An Access Control Plan:
- Determines what access points will be allowed
- Establishes where accesses will be located
- Determines what kind of traffic movements will be allowed at each access
- Identifies alternative access routes and circulation as necessary
- Ensures each abutting property has access directly to SH 66 or to local roadways
- Is a long-range vision for the corridor
- Will not determine the future number of lanes or design features of SH 66

Implementation of the SH 66 Access Control Plan will occur in phases or incrementally over time based on:

- Safety needs
- The development and redevelopment process
- Available funding
- Traffic needs


## $\square$ There are no planned projects or identified funding that would change existing access




SH 66 Access Control Plan


## Access Conversion with Median Treatment <br> - Restrict some or all turning movements Reduce the number of conflicts $\square$ between left turning vehicles and through vehicles on the highway

## Access Relocation

- Access to local properties through secondary roads
- Reduce the number of access locations where vehicles may enter or exit the highway
■ Reduce the number of conflict points



## Access Realignment

■ Align opposite approaches
■ Create a more traditional intersection design


## Access Consolidation

■ Consolidate adjacent access points into one location

- The number of conflict points are reduced



## Parallel Access Route

$\square$ Provide access to properties via a new access road (such as a frontage road)

- Reduces the number of access points along the highway


## Types of Accesses

## Right-in, Right-out

■ Only right turns are allowed

- Traffic median prevents left turns and straight movements - these movements must be completed at another intersection



## 3/4 Movement

Right-in, right-out, and left-in are allowed

- Traffic median prevents left-out and straight movements - these movements must be completed at another intersection



## Full Movement/Roundabout



## Grade-Separated

■ All movements in all directions are allowed
■ Some movements will occur at-grade and may require a traffic signal
■ May require the need to close nearby access

## Access Control Plan Process

Develop Draft ACP based on PEL recommendations, input from local agencies, and CDOT

Revise Access Control Plan based on input from local agencies, the public, and final PEL recommendations

Accept the final plan

Specify how elements of the plan can be changed in the future

Prepare, sign, and adopt an Intergovernmental Agreement between Town of Lyons, City of Longmont, Town of Mead, Town of Firestone, Boulder County, Weld County, and CDOT

Report outcomes to the Colorado Transportation
Commission and get approval from the CDOT
State Access Manager so the plan becomes law

Continuing coordination between Town of Lyons, City of Longmont, Town of Mead, Town of Firestone, Boulder County, Weld County, and CDOT to ensure proper implementation of the plan in the future

## What are the Expected Benefits of the SH 66 Access Control Plan?

The following is a summary of the potential improvements and benefits when the Access Control Plan is implemented:

## Improve Safety for All Modes of Transportation

$\square$ The potential of high-speed rear-end, broadside, and sideswipe accidents between vehicles is reduced

- Future locations where pedestrian and bicyclists can cross the highway at a traffic signal are identified

■ Opportunities to build sidewalks/paths are included

## Improve Traffic Flow

$\square$ Greater spacing of accesses reduces congestion caused by vehicles turning onto and off of SH 66

## Reduce Traffic Conflicts

Restricting the types of access allowed results in fewer conflict points between modes of transportation

## Provide Adequate Access to Adjacent Land Uses

- All properties have access to SH 66 or local roads

■ Better use of the secondary street system or shared access locations
The recommended Access Control Plan meets the established goals for the project by improving traffic flow, reducing the number of conflicts, improving safety for all modes of transportation, and providing access to the adjacent land uses.

## Conflict Points



SINGLE-LANE ROUNDABOUT ACCESS


| SH 66 Roadway Segment | Segment <br> Length <br> (miles) | Number of Existing Accesses |  |  |  |  |  | Access Density (\#/mile) | Number of Accesses with ACP Implemented |  |  |  |  |  | Access Density (\#/mile) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Public |  |  | Private |  | Total |  | Public |  |  | Private |  | Total |  |
|  |  | FM | PM | Other | FM | PM |  |  | FM | PM | Other | FM | PM |  |  |
| McConnell Dr to 87th St | 5.8 | 33 | 0 | 0 | 112 | 15 | 160 | 28 | 9 | 7 | 0 | 1 | 17 | 34 | 6 |
| 87th St to County Line Road | 4.8 | 23 | 2 | 2 | 51 | 5 | 83 | 17 | 13 | 9 | 2 | 2 | 4 | 30 | 6 |
| County Line Road to WCR 7 | 2.8 | 11 | 0 | 2 | 34 | 0 | 47 | 17 | 6 | 3 | 2 | 0 | 7 | 18 | 6 |
| WCR 7 to WCR 11 | 1.8 | 14 | 1 | 0 | 7 | 0 | 22 | 12 | 9 | 2 | 0 | 1 | 1 | 13 | 7 |
| WCR 11 to WCR 19 | 3.9 | 23 | 0 | 0 | 38 | 0 | 61 | 15 | 14 | 0 | 0 | 4 | 5 | 23 | 6 |
| Totals | 19.2 | 104 | 3 | 4 | 242 | 20 | 373 | 18 | 51 | 21 | 4 | 8 | 34 | 118 | 6 |
|  | NOTE: Public accesses are named roads or right of ways maintained by CDOT, County, or Town/City Private accesses include business and residential driveways. <br> FM = full movement <br> PM = partial movement <br> Other = railroad crossing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## C.4. SH 66 Coalition Presentation 1

## SH 66 Planning and Environmental Linkages Study



Introduction to Access Control
Presentation to SH 66 Coalition
March 22, 2019

## What is an Access Control Plan?

- Blend of the agencies' vision for the corridor, the requirements of the State Highway Access Code, and the PEL recommendations
- Determines how to provide property owners reasonable access to the highway
- Identifies improvements to the local transportation network to support vehicle movement and property access
- Determines where accesses will ultimately be located to better assist in the development/redevelopment process


## Why develop an Access Control Plan on SH 66?

- SH 66 has approximately 370 access points (driveways and intersections) from Lyons (McConnell Dr) to WCR 19
- A reduction in the number of accesses improves safety for all modes of transportation, reduces driveway clutter, and improves traffic flow
- Provide CDOT and agencies with a document to assist future development with the site planning process and to streamline access permitting
- To support the functional classification recommendations being developed in the PEL
- The ACP will provide the corridor with a framework for future development that accommodates regional, intra-city, and inter-city travel needs


## What an Access Control Plan Does

- Optimizes the number and location of access points on the corridor
- Recommends where accesses may be consolidated, relocated, or restricted
- Identifies the type of allowed traffic movements and traffic control at each access point
- Identifies conditions for when access changes will occur
- In some instances an interim access condition may be identified
- Ensures legal access to all properties
- Blends the corridor vision established as part of the PEL study with a legally binding document for access on the corridor


## What an Access Control Plan Does NOT Do

- Determine the number of future lanes on the corridor
- Design the future roadway layout
- Identify funding for improvements
- Require immediate changes to properties
- "Take away access"
- The ACP Recommendations is a long-term planning document that will be implemented over time, primarily as development and redevelopment occur
(000) Preliminary SH 6 ACP Schedule

| Task | 2019 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Completed as part of PEL | February | March | April | May | June | July | August | September | October | November | December |
| Access Control Plan Kickoff Meeting |  |  |  |  |  |  |  |  |  |  |  |  |
| Data Collection |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Operations Analysis |  |  |  |  |  |  |  |  |  |  |  |  |
| Presentation to SH 66 Coalition |  |  |  |  |  |  |  |  |  |  |  |  |
| Initial Public Open House (jointly with PEL) |  |  |  |  |  |  |  |  |  |  |  |  |
| Develop Draft Access Control Plan |  |  |  |  |  |  |  |  |  |  |  |  |
| Outreach Meetings with Local Agencies |  |  |  |  |  |  |  |  |  |  |  |  |
| Submit Draft ACP for Agency Input and Review |  |  |  |  |  |  |  |  |  |  |  |  |
| Second Public Open House |  |  |  |  |  |  |  |  |  |  |  |  |
| Modify Plan based on Stakeholder input and Final PEL |  |  |  |  |  |  |  |  |  |  |  |  |
| Final Public Open House (jointly with PEL) |  |  |  |  |  |  |  |  |  |  |  |  |
| One-on-one Meetings |  |  |  |  |  |  |  |  |  |  |  |  |
| Presentation to SH 66 Coalition |  |  |  |  |  |  |  |  |  |  |  |  |
| Final Acess Control Plan and Documentation |  |  |  |  |  |  |  |  |  |  |  |  |
| Submit Final ACP for Agency Review |  |  |  |  |  |  |  |  |  |  |  |  |
| IGA Adoption Process |  |  |  |  |  |  |  |  |  |  |  |  |

## Steps to Adopt/Implement an Access Control Plan

- Study, propose, and accept final Access Control Plan configuration based on agency and public input
- Prepare an Intergovernmental Agreement (IGA) between the local agencies (Boulder County, Town of Lyons, City of Longmont, Weld County, Town of Mead, Town of Firestone) and CDOT
- Specify the process for modifying the ACP in the IGA
- Adopt ACP through signing of the IGA
- Provide a summary to the Colorado Transportation Commission and obtain approval from CDOT Chief Engineer
- Continued coordination between CDOT and agencies to ensure proper implementation of the plan


## Key Points to Remember about ACP Implementation

- The plan represents a long-range vision for the highway and surrounding roadways
- There are currently no planned projects or identified funding for improvements to SH 66 that would significantly change existing access
- Implementation will occur over time based on:
- Traffic and/or safety needs
- Available funding
- As part of the development and redevelopment process


## C.5. SH 66 Coalition Presentation 2

## SH 66 Planning and

 Environmental Linkages Study

Update to Access Control Plan
Presentation to SH 66 Coalition
June 28, 2019


Recap: Role of an Access Control Plan
...........................................................................................

- Optimizes the number and location of access points on the corridor
- Recommends where accesses may be consolidated, relocated, or restricted
- Identifies the type of allowed traffic movements and traffic control at each access point
- Identifies conditions for when access changes will occur
- In some instances an interim access condition may be identified
- Blends the corridor vision established as part of the PEL study with a legally binding document for access on the corridor



## Recap: What an Access Control Plan Does NOT Do

- Determine the number of future lanes on the corridor
- Design the future roadway layout
- Identify funding for improvements
- Require immediate changes to properties
- "Take away access"
- The ACP is a long-term planning document that will be implemented over time, primarily as development and redevelopment occur



## Recap: ACP Implementation

................................................................................

- The plan represents a long-range vision for the highway and surrounding roadways
- There are currently no planned projects or identified funding for improvements to SH 66 that would significantly change existing access
- Implementation will occur over time based on:
- Traffic and/or safety needs
- Available funding
- As part of the development and redevelopment process

ACP Schedule Update

- Hold additional agency meetings with planners/engineering staff
- Develop and circulate draft IGA text and Appendices
- ACP Open House
- Present Draft ACP to Public
- Thursday July 25 4:30-7:00pm
- Longmont Senior Center
- Refine ACP based on agency and public's input
- Present final ACP at joint Open House with SH 66 PEL in the fall
- Tentatively mid-September
- Circulate IGA, Appendices, final Access Table, and final Access maps for signatures
- Fall 2019 (Tentatively beginning in September)



## Draft Access Control Plan

| Existing and Proposed Access Summary |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Segment | Existing Accesses |  | Proposed Accesses with ACP Fully Implemented |  |
|  | Total Public and Private Accesses | Average Access Spacing (per mile) | Total Public and Private Accesses | Average Access Spacing (per mile) |
| Lyons to WCR 19 | 375 | 19 | 122 | 6 |

- Some closures dependent on:
- Future road or shared path construction
- Future cross-access agreement
- Future development

CDOT Draft Access Control Plan



CO ${ }^{\text {CDOT }}$ Draft Access Control Plan


## Appendix D. Proposed Access <br> Maps



| Rivers/ Streams | Milepost |  |
| :--- | :--- | :--- |
| Parks/ Open Space |  | Full Movement (Signalized) |
| Parcel Boundary/ Row Boundary | $3 / 4$ Movement |  |
| Municipal Boundary | $\triangle$ | Right-in, Right-out only |
| Floodplain | $\triangle$ | Right-out only |

$X$ Access to be closed



Parks/ Open Space
Parcel Boundary/ ROW Boundary
Municipal Boundary
Floodplain

Right-out only
contiguous property ownership or access to adjacent property via shared agreement ـ Obtain Access via Alternate Road $\longleftrightarrow$ Existing shared ownership/ Cross Access
$\rightarrow$ Proposed cross access for shared access Proposed Future 16' Access Road with Advisory Shoulde Proposed Future 10' Bike and Pedestrian Path Proposed Future Frontage Road roposed Future Connection


Legend Rivers/ Streams Parcel Boundary/ ROW Boundary Municipal Boundary
Floodplain

Full Movement (Signalized) 3/ 4 Movement

Right-out only

Emergency Access Only $\times$ Access closure contingent on Grade Separated Grade Separ
at Railroad
$\times$ Access to be closed
contiguous property ownership
or access to adj acent property via shared agreement

$$
\begin{aligned}
& \text { via shared agreement } \\
& \text { Obtain Access via Alternate Roa }
\end{aligned}
$$

$\longleftrightarrow$ Existing shared ownership/ Cross Access
$\rightarrow$ Proposed cross access for shared access Proposed Future 16' Access Road with Advisory Shoulde Proposed Future 10' Bike and Pedestrian Path Proposed Future Frontage Road Proposed Future Connection

SH 66 ACP - Recommended Access Control Plan


Milepost Municipal Boundary
Floodplain
contiguous property ownership or access to adjacent property via shared agreement
Obtain Access via Alternate Road
Existing shared ownership/ Cross Access
Grade Separated
Grade Separated
$X$ Access to be closed $\longleftrightarrow$ Existing shared ownership/ Cross Access
$\longrightarrow$ Proposed cross access for shared access Proposed Future 16' Access Road with Advisory Shoulder Proposed Future 10' Bike and Pedestrian Path Proposed Future Frontage Road oposed Future Connection

SH 66 ACP - Recommended Access Control Plan


Parks/ Open Space
Parcel Boundary/ ROW Boundary
Municipal Boundary
Floodplain

Full Movement (Signalized) 3/ 4 Movement
Right-in, Right-out only
Right-out only

$$
\begin{aligned}
& \text { via shared agreement } \\
& \text { Obtain Access via Alternate Roa }
\end{aligned}
$$

Existing shared ownership/ Cross Access
$\rightarrow$ Proposed cross access for shared access
Proposed Future 16' Access Road with Advisory Shoulder Proposed Future 10' Bike and Pedestrian Path Proposed Future Frontage Road roposed Future Connection

$\xrightarrow{\text { Legend Rivers/ Streams }}$ Parcel Boundary/ ROW Boundary Municipal Boundary
Floodplain
$\triangle$ Right-out only
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- Obtain Access via Alternate Road $\longleftrightarrow$ Existing shared ownership/ Cross Access
$\rightarrow$ Proposed cross access for shared access Proposed Future 16' Access Road with Advisory Shoulder Proposed Future 10' Bike and Pedestrian Path Proposed Future Frontage Road Proposed Future Connection


SH 66 ACP - Recommended Access Control Plan


Parcel Boundary/ ROW Boundary
Municipal Boundary
Floodplain


SH 66 ACP - Recommended Access Control Plan

Parks/ Open Space
Parcel Boundary/ ROW Boundary Municipal Boundary
Floodplain

Milepost
Full Movement (Signalized) 3/ 4 Movement Right-in, Right-out only Right-out only

Emergency Access Only $\mathbf{X}$ Access closure contingent on Grade Separated Grade Separated at Railroad X Access to be closed
or access to adj acent property via shared agreement Obtain Access via Alternate Road
$\rightarrow \quad$ Proposed cross access for shared access Proposed Future 16' Access Road with Advisory Shoulder
Proposed Future 10' Bike and Pedestrian Path Proposed Future 10' Bike and Pedestrian Path Proposed Future Frontage Road Proposed Future Connection Proposed Future Connection



SH 66 ACP - Recommended Access Control Plan

Legend
Parks/ Open Space
Parcel Boundary/ ROW Boundary
Municipal Boundary
Floodplain
fll Movement (Signalized) 3/ 4 Movement
Right-in, Right-

Emergency Access Only $\times$ Access closure contingent on contiguous property ownership
Grade Separated at Railroad X Access to be closed $\longleftarrow$ Obtain Access via Alternate Road
$\rightarrow$ Proposed cross access for shared access Proposed Future 16' Access Road with Advisory Shoulder Proposed Future 10' Bike and Pedestrian Path Proposed Future Frontage Road Proposed Future Connection


Legend
Parks/ Open Space
Parcel Boundary/ ROW Boundary
Municipal Boundary
Floodplain

Emergency Access Only $\mathbf{X}$ Access closure contingent on
Grade Separated Grade Separ
X Access to be closed
contiguous property ownership or access to adj acent property via shared agreement - Obtain Access via Alternate Road Existing shared ownership/ Cross Access
$\longleftrightarrow$ Proposed cross access for shared access Proposed Future 16' Access Road with Advisory Shoulder Proposed Future 10' Bike and Pedestrian Path Proposed Future frontage Road oposed Future Connection


Legend Rivers/ Streams
Parks/ Open Space
Parcel Boundary/ ROW Boundary
Municipal Boundary
Floodplain

Right-out only
contiguous property ownership or access to adjacent property via shared agreement
ـ Obtain Access via Alternate Road
$\longleftrightarrow$ Existing shared ownership/ Cross Access
$\longrightarrow$ Proposed cross access for shared access Proposed Future 16' Access Road with Advisory Shoulder Proposed Future 10' Bike and Pedestrian Path Proposed Future Frontage Road roposed Future Connection


## SH 66 ACP - Recommended Access Control Plan

## (



Parks/ Open Space Municipal Boundary
Floodplain

Right-out only
$\longrightarrow$ Proposed cross access for shared access Proposed Future 16' Access Road with Advisory Shoulder Proposed Future 10' Bike and Pedestrian Path Proposed Future Frontage Road Proposed Future Connection


Right-out only
contiguous property ownership r access to adjacent property via shared agreement

- Obtain Access via Alternate Road $\longleftrightarrow$ Existing shared ownership/ Cross Access
$\rightarrow$ Proposed cross access for shared access Proposed Future 16' Access Road with Advisory Shoulder Proposed Future 10' Bike and Pedestrian Path Proposed Future Frontage Road Proposed Future Connection

SH 66 ACP - Recommended Access Control Plan


Legend
Parks/ Open Space
Parcel Boundary/ ROW Boundary Municipal Boundary
Floodplain

Right-out only
contiguous property ownership or access to adjacent property via shared agreement Obtain Access via Alternate Road Existing shared ownership/ Cross Access

SH 66 ACP - Recommended Access Control Plan


Legend Rivers/ Streams
Parks/ Open Space
Parcel Boundary/ ROW Boundary
Municipal Boundary
Floodplain

Milepost Full Movement (Signalized) 3/4 Movement Right-in, Right-out only Right-out only

Emergency Access Only $\times$ Access closure contingent on ontiguous property ownership Grade Separated Grade Separ
at Railroad
X Access to be closed


Right-out only

Emergency Access Only $\times$ Access closure contingent on Grade Separated contiguous property ownership Grade Separated
Grade Separated Grade Separ
at Railroad X Access to be closed $\longleftarrow$ Obtain Access via Alternate Road $=$ Existing shared ownership/ Cross Access
$\longrightarrow$ Proposed cross access for shared access Proposed Future 16' Access Road with Advisory Shoulder
Proposed Future 10' Bike and Pedestrian Path Proposed Future 10' Bike and Pedestrian Path Proposed Future Frontage Road Proposed Future Connection

$\xrightarrow{\text { Legend }}$ Parks/ Open Space Municipal Boundary Floodplain
ortiguous property ownership or access to adjacent property via shared agreement via shared agreement
Obtain Access via Alternate Road $==$ Existing shared ownership/ Cross Access

- Proposed cross access for shared access Proposed Future 16' Access Road with Advisory Shoulder Proposed Future 10' Bike and Pedestrian Path Proposed Future Frontage Road Proposed Future Connection


Legend Rivers/ Streams Parks/ Open Space Parcel Boundary/ ROW Boundary Municipal Boundary
Floodplain

Milepost Full Movement (Signalized) 3/4 Movement
$\triangle$
$\triangle$
Right-out only

SH 66 ACP - Recommended Access Control Plan
$\longleftrightarrow$ Proposed cross access for shared access Proposed Future 16' Access Road with Advisory Shoulder Proposed Future 10' Bike and Pedestrian Path re Frontage Road Proposed Future Connection

m Rivers/ Streams Parks/ Open Space Parcel Boundary/ ROW Boundary Municipal Boundary
Floodplain 3/4 Movement
Right-in, Right-out only
Right-out only
$\longleftrightarrow$ Proposed cross access for shared access Proposed Future 16' Access Road with Advisory Shoulder Proposed Future 10' Bike and Pedestrian Path Proposed Future Frontage Road Proposed Future Connection

SH 66 ACP - Recommended Access Control Plan

## Appendix E. SH 66 Access Table

| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

1. The current State Highway Access Code shall govern any unresolved discrepancies regarding access decisions.
2. All access points are subject to consolidation upon the combining or subdividing of any lots under a single ownership or controlling interest.
3. All access locations $+/-50$ feet ( 0.01 mile) unless otherwise noted.
4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| $\begin{gathered} \text { Milepost }^{3} \\ \text { (CO } 66 \text { / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21.056* | 7 | South | Private <br> Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement if a raised median is added to US 36 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Property should seek to obtain cross access with adjacent property to the east to obtain access to Access 10. If cross access can be obtained, access will ultimately be closed. |
| 21.064* | 6 | North | Private <br> Drive | Full Movement (Unsignalized) | Access to be closed | Access will be closed or restricted to less than full movement if a raised median is added to US 36 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Property should seek to obtain cross access with adjacent property to the west or east to obtain access to Access 2 (Stone Canyon Dr) or Access 16 (Nolan Dr). If cross access can be obtained, access will ultimately be closed. |
| 21.093* | 10 | South | Private Drive | Full Movement (Unsignalized) | Right-In, Right-Out | Access will be restricted to less than full movement if a raised median is added to US 36 as part of a roadway improvement project or if operational and/or safety issues are identified through the completion of a traffic study. Access 10 will provide shared highway access to adjacent properties. |

1. The current State Highway Access Code shall govern any unresolved discrepancies regarding access decisions.
2. All access points are subject to consolidation upon the combining or subdividing of any lots under a single ownership or controlling interest.
3. All access locations $+/-50$ feet ( 0.01 mile) unless otherwise noted.
4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

1. The current State Highway Access Code shall govern any unresolved discrepancies regarding access decisions.
2. All access points are subject to consolidation upon the combining or subdividing of any lots under a single ownership or controlling interest.
3. All access locations $+/-50$ feet ( 0.01 mile) unless otherwise noted.
4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| $\begin{gathered} \text { Milepost }^{3} \\ \text { (CO } 66 \text { / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21.148* | 14 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be closed or restricted to less than full movement if a raised median is added to US 36 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will be closed and property access will be obtained from Access 17 in the interim, or ultimately from Access 395. |
| 21.160* | 13 | North | Private <br> Drive | Full Movement (Unsignalized) | Access to be closed | Access will be closed or restricted to less than full movement if a raised median is added to US 36 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will be obtained from Access 16 (Nolan Drive). |
| 21.164* | 15 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be closed or restricted to less than full movement if a raised median is added to US 36 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will be closed and property access will be obtained from Access 17 in the interim, or ultimately from Access 395. |
| 21.170* | 16 | North | Nolan Dr | Full Movement (Unsignalized) | Right-In, Right-Out | Access will be restricted to less than full movement if a raised median is added to US 36 as part of a roadway improvement project or if operational and/or safety issues are identified through the completion of a traffic study. |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
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| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21.180* | 17 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement if a raised median is added to US 36 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> If cross-access can be obtained with property to the east, access will ultimately be closed and property access will be obtained from Access 395. |
| 21.190* | 395 | South | Private Drive | N/A | Right-In, Right-Out | Access will be a newly constructed right-in, right-out access on the property line to consolidate the existing accesses. The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. |
| 21.210* | 18 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement if a raised median is added to US 36 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> If cross-access can be obtained with property to the west, access will be closed and property access will be obtained from Access 395. |
| 21.230* | 19 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be closed or restricted to less than full movement if a raised median is added to US 36 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will be closed and property access will be obtained from Access 18 in the interim, or ultimately from Access 395. |

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5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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6. Full movement access with potential to become/remain signalized.

| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21.700* | 30 | North | Private Drive | Right-In, RightOut | Access to be closed | Access will be closed or restricted to less than full movement if a raised median is added to US 36 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. Access will be obtained from Access 32 (Highland Dr). |
| 28.693 | 31 | South | US 36 | Full Movement (Signalized) | Full Movement ${ }^{6}$ (Signalized) | The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. <br> Access will remain as-is (signalized full movement). |
| 28.700 | 32 | North | Highland Dr | Full Movement (Signalized) | Full Movement ${ }^{6}$ (Signalized) | The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. <br> Access will remain as-is (signalized full movement). |
| 28.728 | 33 | North | Private Drive | Right-In, RightOut | Access to be closed | Access will be closed or restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. Access will be obtained from Access 32 (Highland Dr). |
| 28.758 | 34 | North | Private Drive | Right-In, RightOut | Access to be closed | Access will be closed or restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. Access will be obtained from Access 32 (Highland Dr). |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| $\begin{gathered} \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 29.026 | 43 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via a new property access, Access 390, located across from Access 44. |
| 29.051 | 390 | North | Future Drive | N/A | Right-In, Right-Out | Access will be a newly constructed right-in, right-out access to the property to consolidate the existing accesses. The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. <br> Access will be located across SH 66 from Access 44. |
| 29.056 | 44 | South | Private Drive | Full Movement (Unsignalized) | Right-In, Right-Out | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. |
| 29.102 | 45 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via a new property access, Access 390, located across from Access 44. |
| 29.196 | 46 | South | 51st St | Full Movement (Unsignalized) | Access to be closed | Access to properties south of SH 66 has been relocated to Access 49. This access will be formally closed and access will be obtained from existing Access 44 or Access 49. |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 29.196 | 47 | North | $\begin{aligned} & \text { E Highland } \\ & \text { Drive } \end{aligned}$ | Full Movement (Unsignalized) | Full Movement ${ }^{6}$ (May be Signalized) | The ultimate access design will be based on the results of a traffic study to ensure it does not create operational and/or safety issues. <br> Access may be signalized if warrants are met. |
| 29.344 | 48 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 47. |
| 29.376 | 49 | South | Private Drive | Full Movement (Unsignalized) | 3/4 Movement ${ }^{5}$ | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. |
| 29.380 | 50 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, with the cessation of operations under the current land use, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 58 (53rd Street). |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 29.449 | 51 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 58 (53rd Street) when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |
| 29.465 | 52 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 58 (53rd Street) when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |
| 29.466 | 53 | South | 51st St | Full Movement (Unsignalized) | Access to be closed | Access to properties south of SH 66 has been relocated to Access 49. This access will be formally closed and access will be obtained from existing Access 49. |
| 29.486 | 54 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 58 (53rd Street) when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :--- | :--- |

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5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
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5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
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5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| $\begin{gathered} \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 29.964 | 65 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Property access can be obtained via Access 67 (Forest Service Road). Access will ultimately be closed and property access will be obtained from Access 67 or the newly constructed Access 389 when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |
| 30.034 | 66 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Property access can be obtained via Access 67 (Forest Service Road). Access will ultimately be closed and property access will be obtained from Access 67 or the newly constructed Access 389 when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |
| 30.071 | 67 | North | Forest <br> Service Rd | Full Movement (Unsignalized) | Access to be closed | Access may be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed if Access 389 is constructed and access can be obtained via the Access Road with Advisory Shoulders on the north side of SH 66 . |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30.092 | 68 | South | Private <br> Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Property should seek to obtain cross access with adjacent property to the east to obtain access to Access 70 . If cross access can be obtained, access will ultimately be closed. |
| 30.111 | 69 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Property should seek to obtain cross access with adjacent property to the east to obtain access to Access 70 . If cross access can be obtained, access will ultimately be closed. |
| 30.145 | 389 | North | Future Drive | N/A | 3/4 Movement ${ }^{5}$ | Access will be a newly constructed $3 / 4$ movement access to the property aligned with Access 70 on the south side of SH 66. The ultimate access design will be based on the results of a traffic study to ensure the access does not create operational and/or safety issues. |
| 30.146 | 70 | South | Private Drive | Full Movement (Unsignalized) | 3/4 Movement ${ }^{5}$ | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. |

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| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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6. Full movement access with potential to become/remain signalized.

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| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
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3. All access locations $+/-50$ feet ( 0.01 mile) unless otherwise noted.
4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| $\begin{gathered} \text { Milepost }^{3} \\ \text { (CO } 66 \text { / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30.698 | 78 | North | 61st St | Full Movement (Unsignalized) | 3/4 Movement ${ }^{5}$ | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if a property adjacent to 61st St redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. |
| 30.736 | 79 | South | County of Boulder | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 81 (63rd Street). |
| 30.819 | 80 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 78 (61st Street) when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |
| 30.841 | 81 | South | 63rd St | Full Movement (Unsignalized) | 3/4 Movement ${ }^{5}$ | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. |

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2. All access points are subject to consolidation upon the combining or subdividing of any lots under a single ownership or controlling interest.
3. All access locations $+/-50$ feet ( 0.01 mile) unless otherwise noted.
4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30.944 | 82 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 98 (66th Street) when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |
| 30.965 | 83 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 98 (66th Street) when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |
| 30.988 | 84 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 98 (66th Street) when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |

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3. All access locations $+/-50$ feet ( 0.01 mile) unless otherwise noted.
4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 31.010 | 85 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 98 (66th Street) when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |
| 31.042 | 86 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 98 (66th Street) when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |
| 31.070 | 87 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 98 (66th Street) when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |

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3. All access locations $+/-50$ feet ( 0.01 mile) unless otherwise noted.
4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 31.085 | 88 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 98 (66th Street) when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |
| 31.113 | 89 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 98 (66th Street) when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |
| 31.175 | 90 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 98 (66th Street) when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |

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3. All access locations $+/-50$ feet ( 0.01 mile) unless otherwise noted.
4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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3. All access locations $+/-50$ feet ( 0.01 mile) unless otherwise noted.
4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 31.248 | 94 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 98 (66th Street) when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |
| 31.267 | 95 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 98 (66th Street) when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |
| 31.290 | 96 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 98 (66th Street) when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |
| 31.330 | 97 | South | 66th St | Full Movement (Unsignalized) | Full Movement ${ }^{6}$ (May be Signalized) | The ultimate access design will be based on the results of a traffic study to ensure it does not create operational and/or safety issues. <br> Access may be signalized if warrants are met. |

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3. All access locations $+/-50$ feet ( 0.01 mile) unless otherwise noted.
4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 31.434 | 102 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 97 ( $66^{\text {th }}$ Street) and Access 105 (McCall Drive). |
| 31.435 | 103 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 98 (66th Street) when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |
| 31.570 | 104 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 98 (66th Street) when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |
| 31.581 | 105 | South | McCall Dr | Full Movement (Unsignalized) | Right-Out only | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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3. All access locations $+/-50$ feet ( 0.01 mile) unless otherwise noted.
4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :--- | :--- |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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3. All access locations $+/-50$ feet ( 0.01 mile) unless otherwise noted.
4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 32.302 | 122 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 129 (75th Street). |
| 32.317 | 123 | North | Private Drive | Right-In, RightOut | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 129 (75th Street). |
| 32.331 | 124 | South | Private Drive | Right-In, RightOut | Right-In, Right-Out | The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. Access will remain as-is (right-in, right-out). |
| 32.332 | 125 | North | Private Drive | Right-In, RightOut | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 129 (75th Street) when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |

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3. All access locations $+/-50$ feet ( 0.01 mile) unless otherwise noted.
4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 32.345 | 126 | North | Private Drive | Right-In, RightOut | Access to be closed | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 129 (75th Street) when the Access Road with Advisory Shoulders is constructed on the north side of SH 66. |
| 32.415 | 127 | South | Private Drive | Right-In, RightOut | Access to be closed | Access will be closed if the property redevelops or if operational and/or safety issues are identified through the completion of a traffic study. Access to the property will be obtained from Access 128 (75th Street). |
| 32.452 | 128 | South | 75th St | Full Movement (Signalized) | Full Movement ${ }^{6}$ (Signalized) | The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. Access will remain as-is (signalized full movement). |
| 32.454 | 129 | North | 75th St | Full Movement (Signalized) | Full Movement ${ }^{6}$ (Signalized) | The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. Access will remain as-is (signalized full movement). |
| 32.484 | 130 | North | Private Drive | Emergency <br> Access Only | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 129 (75th Street). |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 32.543 | 131 | North | Private Drive | Right-In, RightOut | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 132 or Access 129 (75th Street). |
| 32.562 | 132 | North | Private Drive | Right-In, RightOut | Access to be closed | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Property should seek to obtain cross access with adjacent property to the north or west to obtain access to Access 129 (75th Street). If cross access can be obtained, access will ultimately be closed. |
| 32.705 | 133 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 145 when the Access Road with Advisory Shoulders is constructed on the south side of SH 66. |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
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| $\begin{gathered} \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 32.739 | 134 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 145 when the Access Road with Advisory Shoulders is constructed on the south side of SH 66. |
| 32.752 | 135 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 145 when the Access Road with Advisory Shoulders is constructed on the south side of SH 66. |
| 32.773 | 136 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained from Access 145 when the Access Road with Advisory Shoulders is constructed on the south side of SH 66. |

1. The current State Highway Access Code shall govern any unresolved discrepancies regarding access decisions.
2. All access points are subject to consolidation upon the combining or subdividing of any lots under a single ownership or controlling interest.
3. All access locations $+/-50$ feet ( 0.01 mile) unless otherwise noted.
4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change |
| :---: | :---: | :---: | :---: | :---: | :--- | :--- |
| 32.879 | 141 | South | Private <br> Drive | Full Movement <br> (Unsignalized) | Access to be closed |  | | Access will be restricted to less than full movement or closed if a raised |
| :--- |
| median is added to SH 66 as part of a roadway improvement project, if the |
| property redevelops, or if operational and/or safety issues are identified |
| through the completion of a traffic study. |
| Access will ultimately be closed and property access will be obtained from |
| Access 145 when the Access Road with Advisory Shoulders is constructed |
| on the south side of SH 66. |

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| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
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| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :--- | :--- |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO } 66 \text { / } \\ \text { *US } 36 \text { ) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 33.394 | 152 | South | County of Boulder | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 155. |
| 33.428 | 153 | North | Private Drive | Full Movement (Unsignalized) | 3/4 Movement ${ }^{5}$ | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. |
| 33.469 | 154 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Property should seek to obtain cross access with adjacent property to the west to obtain access to Access 153. If cross access can be obtained, access will ultimately be closed. |
| 33.531 | 155 | South | County of Boulder | Full Movement (Unsignalized) | 3/4 Movement ${ }^{5}$ | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 33.683 | 156 | North | County of Boulder | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 161 (87th Street). |
| 33.684 | 157 | South | County of Boulder | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 155 or Access 162 (Airport Rd). |
| 33.860 | 158 | South | County of Boulder | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 155 or Access 162 (Airport Rd). |
| 33.887 | 159 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 162 (Airport Rd). |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
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| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
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| :---: | :---: | :---: | :---: | :---: | :--- | :--- |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 34.559 | 173 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained via Access 169 (Anhawa Street) or Access 177 (Jotipa Drive) when the frontage road is constructed between Anhawa Street and Access 181 on the north side of SH 66. |
| 34.595 | 174 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained via Access 169 (Anhawa Street) or Access 177 (Jotipa Drive) when the frontage road is constructed between Anhawa Street and Access 181 on the north side of SH 66. |
| 34.609 | 175 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained via Access 169 (Anhawa Street) or Access 177 (Jotipa Drive) when the frontage road is constructed between Anhawa Street and Access 181 on the north side of SH 66. |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO } 66 \text { / } \\ \text { *US } 36 \text { ) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 34.653 | 176 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained via Access 169 (Anhawa Street) or Access 177 (Jotipa Drive) when the frontage road is constructed between Anhawa Street and Access 181 on the north side of SH 66. |
| 34.695 | 177 | North | Jotipa Dr | Full Movement (Unsignalized) | Right-In, Right-Out | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. |
| 34.696 | 178 | South | Lake Park Dr | Full Movement (Unsignalized) | 3/4 Movement ${ }^{5}$ | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. |
| 34.738 | 179 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained via Access 169 (Anhawa Street) or Access 177 (Jotipa Drive) when the frontage road is constructed between Anhawa Street and Access 181 on the north side of SH 66. |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 34.772 | 180 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained via Access 169 (Anhawa Street) or Access 177 (Jotipa Drive) when the frontage road is constructed between Anhawa Street and Access 181 on the north side of SH 66. |
| 34.818 | 181 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access will ultimately be closed and property access will be obtained via Access 169 (Anhawa Street) or Access 177 (Jotipa Drive) when the frontage road is constructed between Anhawa Street and Access 181 on the north side of SH 66. |
| 34.933 | 182 | North | Hover St | Full Movement (Signalized) | Full Movement ${ }^{6}$ (Signalized) | The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. <br> Access will remain as-is (signalized full movement). |
| 34.933 | 183 | South | Hover St | Full Movement (Signalized) | Full Movement ${ }^{6}$ (Signalized) | The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. <br> Access will remain as-is (signalized full movement). |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :--- | :--- |
| 35.217 | 184 | North | Private <br> Drive | Full Movement <br> (Unsignalized) | Access to be closed |  | | Access will be restricted to less than full movement or closed if a raised |
| :--- |
| median is added to SH 66 as part of a roadway improvement project, if the |
| property redevelops, or if operational and/or safety issues are identified |
| through the completion of a traffic study. |
| Property should seek to obtain cross access with adjacent property to the |
| east to obtain access to Access 186 . If cross access can be obtained, access |
| will ultimately be closed. |

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| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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| $\begin{gathered} \text { Milepost }^{3} \\ \text { (CO } 66 \text { / } \\ \text { *US } 36 \text { ) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 36.397 | 202 | North | Private Drive | Right-In, RightOut | Access to be closed | Access will be restricted or closed if the property redevelops or if operational and/or safety issues are identified through the completion of a traffic study. <br> Upon property redevelopment, access to the property will be obtained via Park Ridge Ave/US 287. |
| 36.444 | 203 | North | US 287 | Full Movement (Signalized) | Full Movement ${ }^{6}$ (Signalized) | The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. <br> Access will remain as-is (signalized full movement). |
| 36.445 | 204 | South | US 287 | Full Movement (Signalized) | Full Movement ${ }^{6}$ (Signalized) | The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. <br> Access will remain as-is (signalized full movement). |
| 36.540 | 205 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Property should seek to obtain cross access with adjacent property to the west to obtain access to US 287. If cross access can be obtained, access will ultimately be closed. |

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3. All access locations $+/-50$ feet ( 0.01 mile) unless otherwise noted.
4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO } 66 \text { / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 36.598 | 206 | North | Private Drive | Right-In, RightOut | Access to be closed | Access may be closed if operational and/or safety issues are identified through the completion of a traffic study, if property redevelops, or if major reconstruction of Access 203/204 (US 287) requires access closure to obtain an acceptable geometric design. <br> Access to the property will be obtained from Access 208 (Erfert Street) and via US 287/Park Ridge Ave. |
| 36.612 | 207 | South | Collyer St | Access Closed | Access to be closed | Access has been closed; to remain closed. |
| 36.694 | 208 | North | Erfert St | Full Movement (Signalized) | Full Movement ${ }^{6}$ (Signalized) | The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. <br> Access will remain as-is (signalized full movement). |
| 36.767 | 209 | North | Private Drive | Right-In, RightOut | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, if operational and/or safety issues are identified through the completion of a traffic study, or if the grade-separation over the BNSF Railroad requires access closure. <br> Access to the property will be obtained from Access 208 (Erfert Street). |
| 36.842 | 210 | South | Meadow St | Emergency Access Only | Emergency Access Only | Access to remain emergency access only. |

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5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
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5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :--- | :--- |

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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37.074 | 217 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, if operational and/or safety issues are identified through the completion of a traffic study, or if the grade-separation over the BNSF Railroad requires access closure. <br> Access to the property will be obtained from Peppler Dr and local roadways. |
| 37.223 | 218 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, if operational and/or safety issues are identified through the completion of a traffic study, or if the grade-separation over the BNSF Railroad requires access closure. <br> Property access will be via Access 222 (115th Street). |
| 37.301 | 219 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 223 (Alpine Street) and local roadways. |

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5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
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| :---: | :---: | :---: | :---: | :---: | :--- | :--- |

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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 38.332 | 233 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Property should seek to obtain cross access with adjacent property to the east to obtain access to Access 234 (Sundance Drive). If cross access can be obtained, access will ultimately be closed. |
| 38.440 | 234 | South | Sundance <br> Dr | Full Movement (Unsignalized) | Full Movement ${ }^{6}$ (May be Signalized) | The ultimate access design will be based on the results of a traffic study to ensure it does not create operational and/or safety issues. <br> Access may be signalized if warrants are met. |
| 38.443 | 235 | North | Rock Ln | Full Movement (Unsignalized) | Full Movement ${ }^{6}$ (May be Signalized) | The ultimate access design will be based on the results of a traffic study to ensure it does not create operational and/or safety issues. <br> Access may be signalized if warrants are met. |
| 38.559 | 236 | North | Linda Vista Dr | 3/4 Movement | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 235 (Rock Lane). |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 38.738 | 240 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Property should seek to obtain cross access with adjacent property to the east to obtain access to Access 244 (County Line Road). If cross access can be obtained, access will ultimately be closed. |
| 38.767 | 241 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 235 (Rock Lane) or Access 243 (County Line Road). |
| 38.772 | 242 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. |
| 38.946 | 243 | North | County Line Rd | Full Movement (Signalized) | Full Movement ${ }^{6}$ (Signalized) | The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. <br> Access will remain as-is (signalized full movement). |
| 38.949 | 244 | South | County Line Rd | Full Movement (Signalized) | Full Movement ${ }^{6}$ (Signalized) | The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. <br> Access will remain as-is (signalized full movement). |

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5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
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| $\begin{gathered} \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 39.099 | 245 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 243 (County Line Road). |
| 39.263 | 246 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Property should seek to obtain cross access with adjacent property to the east to obtain access to Access 379. If cross access can be obtained, access will ultimately be closed. |
| 39.343 | 247 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 246 or from Access 379 if cross access can be obtained. |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 39.473 | 251 | South | Nesting Crane Ln | Full Movement (Unsignalized) | 3/4 Movement ${ }^{5}$ | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if redevelopment occurs, or if operational and/or safety issues are identified through the completion of a traffic study. |
| 39.475 | 379 | North | Future Drive | N/A | 3/4 Movement ${ }^{5}$ | Access will be a newly constructed $3 / 4$ movement access to the property. The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. Access will be located across SH 66 from Access 251. |
| 39.563 | 252 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 379 or Access 258 (Weld County Rd 3). |
| 39.625 | 253 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Property should seek to obtain cross access with properties to the east to obtain access to Access 259 (Weld County Rd 3), or to obtain access to a future roadway connection at the southern edge of the property ( $1 / 2$ mile south of SH 66). If cross access can be obtained, access will ultimately be closed. |

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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 39.684 | 254 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 253 or from Access 259 (Weld County Rd 3) if cross-access can be obtained. |
| 39.721 | 255 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Property should seek to obtain cross access with adjacent properties to the east and/or south to obtain access to Access 259 (Weld County Rd 3). If cross access can be obtained, access will ultimately be closed. |
| 39.756 | 256 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 379 or Access 258 (Weld County Rd 3). |

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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 40.067 | 261 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Property should seek to obtain cross access with adjacent property to the east for a shared access on the property line (Access 391). If cross access can be obtained, access will ultimately be closed. |
| 40.077 | 262 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 258 (Weld County Rd 3) and Access 373. |
| 40.126 | 391 | South | Future Drive | N/A | Right-In, Right-Out | Access will be a newly constructed right-in, right-out access on the property line to consolidate Access 261 and Access 263. |
| 40.141 | 263 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Property should seek to obtain cross access with adjacent property to the west for a shared access on the property line (Access 391). If cross access can be obtained, access will ultimately be closed. |

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6. Full movement access with potential to become/remain signalized.

| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 40.198 | 264 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 265 or from Access 386 if cross access can be obtained. |
| 40.236 | 265 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if redevelopment occurs, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Properties should seek to obtain cross access with adjacent property to the south/east to obtain access to Access 386 via a new future roadway. If cross access can be obtained, access will ultimately be closed. |
| 40.276 | 266 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 258 (Weld County Rd 3) and Access 373. |
| 40.366 | 267 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 386. |

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2. All access points are subject to consolidation upon the combining or subdividing of any lots under a single ownership or controlling interest.
3. All access locations $+/-50$ feet ( 0.01 mile) unless otherwise noted.
4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 40.447 | 373 | North | Future Drive | N/A | 3/4 Movement ${ }^{5}$ | Access will be a newly constructed $3 / 4$ movement access to the property. The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. <br> Access will be located across SH 66 from Access 386. |
| 40.447 | 386 | South | Future Drive | N/A | 3/4 Movement ${ }^{5}$ | Access will be a newly constructed $3 / 4$ movement access to the property. The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. <br> Access will be located across SH 66 from Access 373. |
| 40.459 | 268 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 373 and Access 278 (Weld County Rd 5). |
| 40.540 | 269 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 386 and Access 277 (Weld County Rd 5). |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO } 66 \text { / } \\ \text { *US } 36 \text { ) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 40.540 | 270 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 373 and Access 278 (Weld County Rd 5). |
| 40.561 | 271 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 373 and Access 278 (Weld County Rd 5). |
| 40.745 | 272 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 386 and Access 277 (Weld County Rd 5). |
| 40.810 | 273 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 373 and Access 278 (Weld County Rd 5). |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO } 66 \text { / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access Number | Side of Highway | Access <br> Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 40.905 | 274 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 373 and Access 278 (Weld County Rd 5). |
| 40.912 | 275 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 386 and Access 277 (Weld County Rd 5). |
| 40.928 | 276 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 278 (Weld County Rd 5). |
| 40.947 | 277 | South | Weld County Rd 5 | Full Movement (Unsignalized) | Full Movement ${ }^{6}$ (May be Signalized) | The ultimate access design will be based on the results of a traffic study to ensure it does not create operational and/or safety issues. <br> Access may be signalized if warrants are met. |

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3. All access locations $+/-50$ feet ( 0.01 mile) unless otherwise noted.
4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| Milepost <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
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| $\begin{gathered} \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 41.455 | 374 | North | Future Drive | N/A | Right-In, Right-Out | Access will be a newly constructed access to the property. Under interim conditions, the access may be signalized if warrants are met. If Accesses 380 and 381 are grade-separated, Access 374 will be restricted to right-in, right-out. The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. <br> Access will be located across SH 66 from Access 284. |
| 41.457 | 284 | South | Weld County Rd 5.5 | Full Movement (Unsignalized) | Right-In, Right-Out | Under interim conditions, the access may be signalized if warrants are met. If Accesses 380 and 381 are grade-separated, Access 374 will be restricted to right-in, right-out. The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. <br> Access will be located across SH 66 from Access 374. |
| 41.515 | 285 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 374 and Access 376. |
| 41.686 | 286 | South | Stage Coach Dr | Full Movement (Unsignalized) | 3/4 Movement ${ }^{5}$ | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if redevelopment occurs, or if operational and/or safety issues are identified through the completion of a traffic study. |

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6. Full movement access with potential to become/remain signalized.

| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :--- | :--- |

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| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :--- | :--- | :--- | :--- | :--- |

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| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO } 66 \text { / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 42.858 | 298 | North | I-25 | Full Movement (Signalized) | Full Movement ${ }^{6}$ (Signalized) | The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. <br> Access will remain as-is (signalized full movement). |
| 42.978 | 299 | South | I-25 | Full Movement (Signalized) | Full Movement ${ }^{6}$ (Signalized) | The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. <br> Access will remain as-is (signalized full movement). |
| 42.979 | 300 | North | I-25 | Full Movement (Signalized) | Full Movement ${ }^{6}$ (Signalized) | The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. <br> Access will remain as-is (signalized full movement). |
| 43.215 | 301 | North | Mead St | Full Movement (Unsignalized) | 3/4 Movement ${ }^{5}$ | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if redevelopment occurs, or if operational and/or safety issues are identified through the completion of a traffic study. |
| 43.215 | 302 | South | Mead St | Full Movement (Unsignalized) | 3/4 Movement ${ }^{5}$ | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if redevelopment occurs, or if operational and/or safety issues are identified through the completion of a traffic study. |

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5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO } 66 \text { / } \\ \text { *US } 36 \text { ) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 43.349 | 303 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if redevelopment occurs, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via a future roadway connection to Access 302 (Mead Street) or Access 305 (Weld County Rd 9.5). |
| 43.448 | 304 | North | Weld County Rd 9.5 | Full Movement (Signalized) | Grade Separated | Access may be grade separated in the future. The ultimate access design will be based on the results of a traffic study to ensure it does not create operational and/or safety issues. |
| 43.449 | 305 | South | Weld County Rd 9.5 | Full Movement (Signalized) | Grade Separated | Access may be grade separated in the future. The ultimate access design will be based on the results of a traffic study to ensure it does not create operational and/or safety issues. |
| 43.531 | 306 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 304 (Weld County Rd 9.5) or Access 382. |
| 43.661 | 307 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 304 (Weld County Rd 9.5) or Access 382. |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| $\begin{gathered} \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 43.687 | 382 | North | Future Drive | N/A | Right-In, Right-Out | Access will be a newly constructed right-in, right-out access to the property. The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. |
| 43.734 | 308 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 305 (Weld County Rd 9.5) or Access 311 (Weld County Rd 11). |
| 43.738 | 396 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 310 (Weld County Rd 11) or Access 382. |
| 43.794 | 309 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 305 (Weld County Rd 9) or Access 311 (Weld County Rd 11). |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 43.951 | 310 | North | Weld County Rd 11 | Full Movement (Unsignalized) | Full Movement ${ }^{6}$ (May be Signalized) | The ultimate access design will be based on the results of a traffic study to ensure it does not create operational and/or safety issues. <br> Access may be signalized if warrants are met. |
| 43.952 | 311 | South | Weld County Rd 11 | Full Movement (Unsignalized) | Full Movement ${ }^{6}$ (May be Signalized) | The ultimate access design will be based on the results of a traffic study to ensure it does not create operational and/or safety issues. <br> Access may be signalized if warrants are met. |
| 44.069 | 312 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 310 (Weld County Rd 11) or Access 383. |
| 44.191 | 383 | North | Future Drive | N/A | Right-In, Right-Out | Access will be a newly constructed right-in, right-out access to the property. The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. <br> Access will be located across SH 66 from Access 384. |
| 44.193 | 384 | South | Future Drive | N/A | Right-In, Right-Out | Access will be a newly constructed right-in, right-out access to the property. The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. <br> Access will be located across SH 66 from Access 383. |

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6. Full movement access with potential to become/remain signalized.

| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO } 66 \text { / } \\ \text { *US } 36 \text { ) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 44.233 | 313 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 384 or Access 319 (Future Weld County Rd 11.5). |
| 44.270 | 314 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 384 or Access 319 (Future Weld County Rd 11.5). |
| 44.284 | 315 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 384 or Access 319 (Future Weld County Rd 11.5). |
| 44.285 | 316 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 383 or Access 318 (Future Weld County Rd 11.5). |

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3. All access locations $+/-50$ feet ( 0.01 mile) unless otherwise noted.
4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :--- | :--- |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| $\begin{gathered} \text { Milepost }^{3} \\ \text { (CO } 66 \text { / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 44.825 | 321 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 322 (Weld County Rd 13). |
| 44.944 | 322 | North | Weld County Rd 13 | Full Movement (Signalized) | Grade Separated | Access may be grade separated in the future. The ultimate access design will be based on the results of a traffic study to ensure it does not create operational and/or safety issues. |
| 44.945 | 323 | South | Weld County Rd 13 | Full Movement (Signalized) | Grade Separated | Access may be grade separated in the future. The ultimate access design will be based on the results of a traffic study to ensure it does not create operational and/or safety issues. |
| 44.973 | 324 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 322 (Weld County Rd 13). |
| 45.121 | 325 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property can be obtained via local roadways. |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change ${ }^{\text {4 }}$ |
| :---: | :---: | :---: | :---: | :---: | :--- | :--- |

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| $\begin{gathered} \hline \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access <br> Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 45.427 | 330 | South | Private Drive | Full Movement (Unsignalized) | Full Movement ${ }^{6}$ (May be Signalized) | The ultimate access design will be based on the results of a traffic study to ensure it does not create operational and/or safety issues. <br> Access may be signalized if warrants are met. |
| 45.430 | 378 | North | Future Drive | N/A | Full Movement ${ }^{6}$ (May be Signalized) | Access will be a newly constructed full movement access. The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. <br> Access will be located across SH 66 from Access 330. |
| 45.469 | 331 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 330. |
| 45.518 | 332 | North | N Service Rd | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 378. |
| 45.528 | 333 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 330. |

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4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

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| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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| :---: | :---: | :---: | :---: | :---: | :--- | :--- |

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| :---: | :---: | :---: | :---: | :---: | :---: | :--- |

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| :---: | :---: | :---: | :---: | :---: | :--- | :--- |

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| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 46.949 | 351 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained from Access 345 (Weld County Rd 17 N) or Access 358. |
| 47.093 | 387 | South | Future path crossing | N/A | Grade Separated | Access will be a grade separated multi-modal path. |
| 47.116 | 388 | North | Future path crossing | N/A | Grade Separated | Access will be a grade separated multi-modal path. |
| 47.128 | 352 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 358. |
| 47.157 | 353 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Property should seek to obtain cross access with adjacent property to the east to obtain access to Access 358 . If cross access can be obtained, access will ultimately be closed. |

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3. All access locations $+/-50$ feet ( 0.01 mile) unless otherwise noted.
4. The type, number, and storage length of lanes may be determined by a separate traffic study to be done at the time of the actual design and implementation of the access plan and to ensure that the design does not create operational and/or safety issues.
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| :---: | :---: | :---: | :---: | :---: | :--- | :--- |

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5. A $3 / 4$ movement configuration means that vehicles can turn right into the access, turn right out of the access, and turn left into the access.
6. Full movement access with potential to become/remain signalized.

| Milepost ${ }^{\mathbf{3}}$ <br> (CO 66 / <br> *US 36) | Access <br> Number | Side of <br> Highway | Access <br> Description | Existing <br> Conditions | Ultimate Access <br> Control Plan <br> Configuration | Conditions for Change |
| :---: | :---: | :---: | :---: | :---: | :--- | :--- |
| 47.483 | 359 | North | Private <br> Drive | Full Movement <br> (Unsignalized) | Access to be closed |  | | Access will be restricted to less than full movement if a raised median is |
| :--- |
| added to SH 66 as part of a roadway improvement project, if the property |
| redevelops, or if operational and/or safety issues are identified through |
| the completion of a traffic study. |
| Property should seek to obtain cross access with adjacent property to the |
| west to obtain access to Access 358. If cross access can be obtained, |
| access will ultimately be closed. |

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| $\begin{gathered} \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 47.590 | 362 | South | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 356 or Access 370 (Weld County Rd 19). |
| 47.593 | 363 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 364 or from Access 369 if cross-access can be obtained. |
| 47.606 | 364 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Property should seek to obtain cross access with adjacent property to the west to obtain access to Access 358 . If cross access can be obtained, access will ultimately be closed. |

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| $\begin{gathered} \text { Milepost }^{3} \\ \text { (CO 66 / } \\ \text { *US 36) } \\ \hline \end{gathered}$ | Access Number | Side of Highway | Access Description | Existing Conditions | Ultimate Access Control Plan Configuration | Conditions for Change ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 47.663 | 365 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 364 or from Access 369 if cross-access can be obtained. |
| 47.663 | 394 | South | Future Drive | N/A | Right-In, Right-Out | Access will be a newly constructed right-in, right-out access to the property. The ultimate access design will be based on the results of a traffic study to ensure the intersection does not create operational and/or safety issues. |
| 47.714 | 366 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 364 or from Access 369 if cross-access can be obtained. |
| 47.734 | 367 | North | Private Drive | Full Movement (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised median is added to SH 66 as part of a roadway improvement project, if the property redevelops, or if operational and/or safety issues are identified through the completion of a traffic study. <br> Access to the property will be obtained via Access 364 or from Access 369 if cross-access can be obtained. |

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| :---: | :---: | :---: | :---: | :---: | :---: | :--- |
| 47.741 | 368 | South | Private <br> Drive | Full Movement <br> (Unsignalized) | Access to be closed | Access will be restricted to less than full movement or closed if a raised <br> median is added to SH 66 as part of a roadway improvement project, if the <br> property redevelops, or if operational and/or safety issues are identified <br> through the completion of a traffic study. <br> Access to the property will be obtained via Access 356 or Access 370 (Weld <br> County Rd 19). |
| 47.899 | 369 | North | Weld <br> County Rd <br> 19 | Full Movement <br> (Unsignalized) | Full Movement ${ }^{6}$ <br> (May be Signalized) | The ultimate access design will be based on the results of a traffic study to <br> ensure it does not create operational and/or safety issues. <br> Access may be signalized if warrants are met. |
| 47.900 | 370 | South | Weld <br> County Rd <br> 19 | Full Movement <br> (Unsignalized) | Full Movement ${ }^{6}$ <br> (May be Signalized) | The ultimate access design will be based on the results of a traffic study to <br> ensure it does not create operational and/or safety issues. <br> Access may be signalized if warrants are met. |

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## Appendix F. 2040 Synchro Analysis

## F.1. 2040 AM No Action

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | \% | 性 | 7 | \% | 个4 | 7 | 7 | $\hat{F}$ |  | \% | $\hat{\beta}$ |  |
| Traffic Volume (veh/h) | 15 | 740 | 65 | 195 | 460 | 15 | 65 | 15 | 235 | 40 | 35 | 40 |
| Future Volume (veh/h) | 15 | 740 | 65 | 195 | 460 | 15 | 65 | 15 | 235 | 40 | 35 | 40 |
| Initial $Q(Q b)$, veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow, veh/h/ln | 1870 | 1826 | 1870 | 1870 | 1826 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 16 | 804 | 71 | 212 | 500 | 16 | 71 | 16 | 255 | 43 | 38 | 43 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% | 2 | 5 | 2 | 2 | 5 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 396 | 924 | 422 | 505 | 1927 | 880 | 340 | 17 | 268 | 171 | 142 | 161 |
| Arrive On Green | 0.27 | 0.27 | 0.27 | 0.18 | 0.56 | 0.56 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 |
| Sat Flow, veh/h | 885 | 3469 | 1585 | 1781 | 3469 | 1585 | 1317 | 94 | 1505 | 1108 | 801 | 906 |
| Grp Volume(v), veh/h | 16 | 804 | 71 | 212 | 500 | 16 | 71 | 0 | 271 | 43 | 0 | 81 |
| Grp Sat Flow(s),veh/h/n | 885 | 1735 | 1585 | 1781 | 1735 | 1585 | 1317 | 0 | 1599 | 1108 | 0 | 1707 |
| Q Serve(g_s), s | 0.6 | 10.0 | 1.5 | 3.1 | 3.4 | 0.2 | 2.2 | 0.0 | 7.5 | 0.5 | 0.0 | 1.8 |
| Cycle Q Clear(g_c), s | 0.6 | 10.0 | 1.5 | 3.1 | 3.4 | 0.2 | 4.1 | 0.0 | 7.5 | 8.0 | 0.0 | 1.8 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.94 | 1.00 |  | 0.53 |
| Lane Grp Cap(c), veh/h | 396 | 924 | 422 | 505 | 1927 | 880 | 340 | 0 | 284 | 171 | 0 | 304 |
| V/C Ratio(X) | 0.04 | 0.87 | 0.17 | 0.42 | 0.26 | 0.02 | 0.21 | 0.00 | 0.95 | 0.25 | 0.00 | 0.27 |
| Avail Cap(c_a), veh/h | 396 | 925 | 423 | 505 | 1928 | 881 | 340 | 0 | 284 | 171 | 0 | 304 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(1) | 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 | 12.3 | 15.8 | 12.7 | 8.7 | 5.2 | 4.5 | 17.7 | 0.0 | 18.3 | 22.4 | 0.0 | 16.0 |
| Incr Delay (d2), s/veh | 0.1 | 9.2 | 0.3 | 0.6 | 0.1 | 0.0 | 0.4 | 0.0 | 40.8 | 1.1 | 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 | 0.1 | 4.0 | 0.4 | 0.7 | 0.5 | 0.0 | 0.6 | 0.0 | 5.7 | 0.5 | 0.0 | 0.7 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay(d),s/veh | 12.4 | 25.0 | 12.9 | 9.3 | 5.3 | 4.5 | 18.1 | 0.0 | 59.1 | 23.5 | 0.0 | 16.6 |
| LnGrp LOS | B | C | B | A | A | A | B | A | E | C | A | B |
| Approach Vol, veh/h |  | 891 |  |  | 728 |  |  | 342 |  |  | 124 |  |
| Approach Delay, s/veh |  | 23.8 |  |  | 6.4 |  |  | 50.6 |  |  | 19.0 |  |
| Approach LOS |  | C |  |  | A |  |  | D |  |  | B |  |


| Timer - Assigned Phs | 1 | 2 | 4 | 6 | 8 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Phs Duration (G+Y+Rc), s | 13.0 | 18.0 | 14.0 | 31.0 | 14.0 |
| Change Period (Y+Rc), s | 5.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Max Green Setting (Gmax), s | 8.0 | 12.0 | 8.0 | 25.0 | 8.0 |
| Max Q Clear Time (g_c+11), s | 5.1 | 12.0 | 10.0 | 5.4 | 9.5 |
| Green Ext Time (p_c), s | 0.2 | 0.0 | 0.0 | 4.0 | 0.0 |

## Intersection Summary

HCM 6th Ctrl Delay 21.8

HCM 6th LOS
C
Notes
User approved pedestrian interval to be less than phase max green.


| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | \% | $\uparrow$ | 7 | \% | $\uparrow$ | F |  | \$ |  |  | ¢ |  |
| Traffic Volume (veh/h) | 10 | 380 | 145 | 270 | 765 | 5 | 85 | 10 | 40 | 5 | 195 | 75 |
| Future Volume (veh/h) | 10 | 380 | 145 | 270 | 765 | 5 | 85 | 10 | 40 | 5 | 195 | 75 |
| Initial $Q(Q b)$, veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow, veh/h/ln | 1737 | 1856 | 1900 | 1870 | 1826 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 11 | 413 | 158 | 293 | 832 | 5 | 92 | 11 | 0 | 5 | 212 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% | 11 | 3 | 0 | 2 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 245 | 799 | 693 | 569 | 975 | 859 | 287 | 28 |  | 67 | 299 |  |
| Arrive On Green | 0.02 | 0.43 | 0.43 | 0.12 | 0.53 | 0.53 | 0.16 | 0.16 | 0.00 | 0.16 | 0.16 | 0.00 |
| Sat Flow, veh/h | 1654 | 1856 | 1610 | 1781 | 1826 | 1610 | 1055 | 176 | 0 | 16 | 1878 | 0 |
| Grp Volume(v), veh/h | 11 | 413 | 158 | 293 | 832 | 5 | 103 | 0 | 0 | 217 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1654 | 1856 | 1610 | 1781 | 1826 | 1610 | 1231 | 0 | 0 | 1895 | 0 | 0 |
| Q Serve(g_s), s | 0.2 | 9.4 | 3.6 | 4.7 | 22.4 | 0.1 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.2 | 9.4 | 3.6 | 4.7 | 22.4 | 0.1 | 4.4 | 0.0 | 0.0 | 6.2 | 0.0 | 0.0 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 0.89 |  | 0.00 | 0.02 |  | 0.00 |
| Lane Grp Cap (c), veh/h | 245 | 799 | 693 | 569 | 975 | 859 | 315 | 0 |  | 366 | 0 |  |
| V/C Ratio(X) | 0.04 | 0.52 | 0.23 | 0.51 | 0.85 | 0.01 | 0.33 | 0.00 |  | 0.59 | 0.00 |  |
| Avail Cap(c_a), veh/h | 415 | 1717 | 1490 | 766 | 1893 | 1669 | 700 | 0 |  | 953 | 0 |  |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 11.1 | 12.0 | 10.3 | 7.5 | 11.5 | 6.3 | 22.1 | 0.0 | 0.0 | 22.9 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.1 | 0.5 | 0.2 | 0.7 | 2.3 | 0.0 | 0.6 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \%ile BackOfQ(50\%),veh/ln | 0.1 | 2.9 | 1.0 | 1.1 | 6.2 | 0.0 | 1.2 | 0.0 | 0.0 | 2.6 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay(d),s/veh | 11.2 | 12.5 | 10.5 | 8.3 | 13.7 | 6.3 | 22.7 | 0.0 | 0.0 | 24.4 | 0.0 | 0.0 |


| LnGrp LOS | B | B | B | A | B | A | C | A | C | A |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Approach Vol, veh/h | 582 |  | 1130 |  | 103 | A | 217 | A |  |  |
| Approach Delay, slveh | 11.9 |  | 12.3 |  | 22.7 |  | 24.4 |  |  |  |
| Approach LOS | B |  | B |  | C |  |  |  |  |  |


| Timer - Assigned Phs | 1 | 2 | 4 | 5 | 6 | 8 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Phs Duration (G+Y+Rc), s | 11.6 | 31.7 | 14.1 | 5.6 | 37.6 | 14.1 |
| Change Period (Y+Rc), s | 4.5 | 7.0 | 5.0 | 4.5 | 7.0 | 5.0 |
| Max Green Setting (Gmax), s | 13.4 | 53.1 | 27.0 | 7.0 | 59.5 | 27.0 |
| Max Q Clear Time (g_c+11), s | 6.7 | 11.4 | 8.2 | 2.2 | 24.4 | 6.4 |
| Green Ext Time (p_c), s | 0.5 | 2.9 | 1.0 | 0.0 | 6.2 | 0.5 |

Intersection Summary

| HCM 6th Ctrl Delay | 14.0 |
| :--- | ---: |
| HCM 6th LOS | B |

## Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 6.7 |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |  |
| Lane Configurations | ${ }^{1}$ | 4 | 7 | \% | 4 | 7 |  | 4 |  |  | \& |  |  |
| Traffic Vol, veh/h | 5 | 415 | 5 | 5 | 975 | 25 | 20 | 5 | 30 | 50 | 5 | 25 |  |
| Future Vol, veh/h | 5 | 415 | 5 | 5 | 975 | 25 | 20 | 5 | 30 | 50 | 5 | 25 |  |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Sign Control F | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |  |
| RT Channelized | - | - | None | - | - | None | - | - | Stop | - | - | Stop |  |
| Storage Length | 475 | - | 475 | 325 | - | 325 | - | - | - | - | - | - |  |
| Veh in Median Storage, \# | \# | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |  |
| Grade, \% | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |  |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |  |
| Heavy Vehicles, \% | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 |  |
| Mvmt Flow | 5 | 451 | 5 | 5 | 1060 | 27 | 22 | 5 | 33 | 54 | 5 | 27 |  |






| Major/Minor $\quad$ a | Major1 |  | Major2 |  | Minor2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 1103 | 0 | - | 0 | 1692 | 1095 |
| Stage 1 | - | - | - | - | 1095 | - |
| Stage 2 | - | - | - | - | 597 | - |
| Critical Hdwy | 4.1 | - | - | - | 6.65 | 6.2 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.65 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.65 | - |
| Follow-up Hdwy | 2.2 | - | - | - | 3.725 | 3.3 |
| Pot Cap-1 Maneuver | 640 | - | - | - | 90 | 262 |
| Stage 1 | - | - | - | - | 290 | - |
| Stage 2 | - | - | - | - | 508 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 640 | - | - | - | 89 | 262 |
| Mov Cap-2 Maneuver | - | - | - | - | 89 | - |
| Stage 1 | - | - | - | - | 288 | - |
| Stage 2 | - | - | - | - | 508 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | SB |  |
| HCM Control Delay, s | 0.1 |  | 0 |  | 47 |  |
| HCM LOS |  |  |  |  | E |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | EBL | EBT | WBT | WBR SBLn1 |  |
| Capacity (veh/h) |  | 640 | - | - | - | 107 |
| HCM Lane V/C Ratio |  | 0.008 | - | - | - | 0.203 |
| HCM Control Delay (s) |  | 10.7 | - | - | - | 47 |
| HCM Lane LOS |  | B | - | - | - | E |
| HCM 95th \%tile Q(veh) |  | 0 | - | - | - | 0.7 |


| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 3.7 |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  | \& |  |  | * |  |  | \$ |  |  | 4 |  |
| Traffic Vol, veh/h | 5 | 555 | 5 | 30 | 1000 | 25 | 10 | 5 | 15 | 20 | 10 | 5 |
| Future Vol, veh/h | 5 | 555 | 5 | 30 | 1000 | 25 | 10 | 5 | 15 | 20 | 10 | 5 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, \# | \# | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, \% | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 5 | 603 | 5 | 33 | 1087 | 27 | 11 | 5 | 16 | 22 | 11 | 5 |



|  | 4 | $\rightarrow$ | 7 | $\psi$ |  | 4 |  | 4 | $p$ | ( | $\dagger$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | \% | 4 | 7 | 5 | 4 | ${ }^{\prime}$ | \% | 4 | 7 | \% | $\uparrow$ |  |
| Traffic Volume (vph) | 5 | 335 | 250 | 1350 | 595 | 50 | 410 | 90 | 695 | 20 | 280 | 50 |
| Future Volume (vph) | 5 | 335 | 250 | 1350 | 595 | 50 | 410 | 90 | 695 | 20 | 280 | 50 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1800 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.6 | 6.4 | 6.4 | 6.5 | 6.4 | 6.4 | 5.7 | 5.7 | 5.7 | 5.8 | 5.7 |  |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 0.98 |  |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |  |
| Satd. Flow (prot) | 1805 | 1827 | 1599 | 3252 | 1792 | 1615 | 1752 | 1863 | 1553 | 1805 | 1851 |  |
| Flt Permitted | 0.42 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.12 | 1.00 | 1.00 | 0.69 | 1.00 |  |
| Satd. Flow (perm) | 796 | 1827 | 1599 | 3252 | 1792 | 1615 | 228 | 1863 | 1553 | 1318 | 1851 |  |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 5 | 364 | 272 | 1467 | 647 | 54 | 446 | 98 | 755 | 22 | 304 | 54 |
| RTOR Reduction (vph) | 0 | 0 | 198 | 0 | 0 | 26 | 0 | 0 | 489 | 0 | 4 | 0 |
| Lane Group Flow (vph) | 5 | 364 | 74 | 1467 | 647 | 28 | 446 | 98 | 266 | 22 | 354 | 0 |
| Heavy Vehicles (\%) | 0\% | 4\% | 1\% | 2\% | 6\% | 0\% | 3\% | 2\% | 4\% | 0\% | 0\% | 2\% |
| Turn Type | pm+pt | NA | Perm | Prot | NA | Perm | pm+pt | NA | Perm | pm+pt | NA |  |
| Protected Phases | 7 | 4 |  | 3 | 8 |  | 5 | 2 |  | 1 | 6 |  |
| Permitted Phases | 4 |  | 4 |  |  | 8 | 2 |  | 2 | 6 |  |  |
| Actuated Green, G (s) | 34.7 | 33.9 | 33.9 | 49.5 | 82.5 | 82.5 | 55.6 | 47.4 | 47.4 | 29.0 | 26.6 |  |
| Effective Green, g (s) | 34.7 | 33.9 | 33.9 | 49.5 | 82.5 | 82.5 | 55.6 | 47.4 | 47.4 | 29.0 | 26.6 |  |
| Actuated g/C Ratio | 0.22 | 0.22 | 0.22 | 0.31 | 0.52 | 0.52 | 0.35 | 0.30 | 0.30 | 0.18 | 0.17 |  |
| Clearance Time (s) | 6.6 | 6.4 | 6.4 | 6.5 | 6.4 | 6.4 | 5.7 | 5.7 | 5.7 | 5.8 | 5.7 |  |
| Vehicle Extension (s) | 2.0 | 4.0 | 4.0 | 3.0 | 4.0 | 4.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |  |
| Lane Grp Cap (vph) | 180 | 392 | 343 | 1021 | 938 | 845 | 305 | 560 | 467 | 249 | 312 |  |
| v/s Ratio Prot | 0.00 | c0.20 |  | c0.45 | 0.36 |  | c0.22 | 0.05 |  | 0.00 | 0.19 |  |
| v/s Ratio Perm | 0.01 |  | 0.05 |  |  | 0.02 | c0.30 |  | 0.17 | 0.01 |  |  |
| v/c Ratio | 0.03 | 0.93 | 0.22 | 1.44 | 0.69 | 0.03 | 1.46 | 0.17 | 0.57 | 0.09 | 1.13 |  |
| Uniform Delay, d1 | 48.1 | 60.7 | 50.9 | 54.0 | 28.0 | 18.2 | 49.4 | 40.7 | 46.5 | 53.1 | 65.5 |  |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |
| Incremental Delay, d2 | 0.0 | 28.2 | 0.4 | 202.2 | 2.3 | 0.0 | 225.3 | 0.1 | 1.6 | 0.2 | 92.3 |  |
| Delay (s) | 48.1 | 88.9 | 51.3 | 256.3 | 30.3 | 18.2 | 274.6 | 40.8 | 48.1 | 53.3 | 157.8 |  |
| Level of Service | D | F | D | F | C | B | F | D | D | D | F |  |
| Approach Delay (s) |  | 72.6 |  |  | 182.9 |  |  | 125.3 |  |  | 151.7 |  |
| Approach LOS |  | E |  |  | F |  |  | F |  |  | F |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 2000 Control Delay |  |  | 147.8 |  | HCM 2000 | Level of S | Service |  | F |  |  |  |
| HCM 2000 Volume to Capacity ratio |  |  | 1.35 |  |  |  |  |  |  |  |  |  |
| Actuated Cycle Length (s) |  |  | 157.6 |  | Sum of los | time (s) |  |  | 24.5 |  |  |  |
| Intersection Capacity Utilization |  |  | 118.9\% |  | CU Level | f Service |  |  | H |  |  |  |

Analysis Period (min) 15
c Critical Lane Group


| Major/Minor | Major1 | Major2 |  |  |  | Minor1 |  |  | Minor2 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 2168 | 0 | 0 | 1141 | 0 | 0 | 3361 | 3358 | 1136 | 3410 | 3361 | 2166 |
| Stage 1 |  | - | - |  | - | - | 1136 | 1136 |  | 2220 | 2220 |  |
| Stage 2 | - | - | - | - | - | - | 2225 | 2222 |  | 1190 | 1141 |  |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |  | 5.52 |  | 6.12 | 5.52 |  |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 |  | 6.12 | 5.52 |  |
| Follow-up Hdwy | 2.218 | - |  | 2.218 | - |  | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 246 | - |  | 612 | - |  | ~ | 8 | 246 | $\sim 4$ | 8 | 59 |
| Stage 1 | - | - | - | - | - |  | 246 | 277 |  | 58 | 81 | - |
| Stage 2 | - | - | - | - | - | - | 57 | 80 |  | 229 | 275 | - |


| Platoon blocked, \% |  | - | - | - | - |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Mov Cap-1 Maneuver | 246 | - | - | 612 | - | - | $\sim$ | 8 | 8 | 246 |


| Mov Cap-2 Maneuver | - | - | - | - | - | - | $\sim$ | 8 | - | $\sim 2$ | 8 | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Stage 1 | - | - | - | - | - | - | 246 | 277 | - | 58 | 77 | - |
| Stage 2 | - | - | - | - | - | - | 46 | 76 | - | 133 | 275 | - |


|  | EB | WB | NB | SB |
| :--- | :---: | :---: | ---: | ---: |
| Approach | 0.1 | 214.5 | $\$ 2233$ |  |
| HCM Control Delay, s | 0 | $F$ | F |  |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 1534.7 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 4 | $\mathbf{r}$ |  | A | F | F |
| Traffic Vol, veh/h | 1080 | 60 | 200 | 1945 | 70 | 170 |
| Future Vol, veh/h | 1080 | 60 | 200 | 1945 | 70 | 170 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 250 | 300 | - | 275 | 0 |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 56 | 63 | 91 | 63 | 80 |
| Heavy Vehicles, \% | 3 | 0 | 1 | 3 | 0 | 1 |
| Mvmt Flow | 1227 | 107 | 317 | 2137 | 111 | 213 |




| Major/Minor | Major1 | Major2 |  |  |  |  | Minor1 | Minor2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 2272 | 0 | 0 | 1337 | 0 | 0 | 4028 | 4006 | 1288 | 3995 | 4017 | 2234 |
| Stage 1 | - | - | - | - | - | - | 1332 | 1332 | - | 2636 | 2636 | - |
| Stage 2 | - | - | - | - | - | - | 2696 | 2674 | - | 1359 | 1381 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - |  | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - |  | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |  | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - |  | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 224 | - | - | 516 | - | - | $\sim 1$ | $\sim 3$ | 200 | $\sim 2$ | $\sim 3$ | $\sim 54$ |
| Stage 1 | - | - | - | - | - | - | 190 | 223 | - | 32 | 49 | - |
| Stage 2 | - | - | - | - | - | - | 30 | 47 | - | 183 | 211 | - |



| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | $\sim 2$ | - | - | $\sim 2$ | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Stage 1 | - | - | - | - | - | - | 171 | 201 | - | 29 | 30 | - |
| Stage 2 | - | - | - | - | - | - | - | 29 | - | 38 | 190 | - |


| Approach | EB | WB | NB | SB |
| :--- | :--- | :--- | :--- | :--- |
| HCM Control Delay, s | 0.4 | 1.3 |  | - |


| Minor Lane/Major Mvmt | NBLn1 NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR SBLn1 SBLn2 |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | - | 200 | 224 | - | - | 516 | - | - |
| HCM Lane V/C Ratio | -0.761 | 0.097 | - | - | 0.39 | - | - | -1.308 |
| HCM Control Delay (s) | -64.4 | 22.8 | - | - | 16.4 | - | - | $-\$ 351$ |
| HCM Lane LOS | - | F | C | - | - | C | - | - |
| HCM 95th \%tile Q(veh) | - | 5.1 | 0.3 | - | - | 1.8 | - | - |

## Notes

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

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | 7\％ | ¢ $\uparrow$ | 7 | 7\％ | 性 | F | \％ | 个4 | 7 | \％ | 个4 | F |
| Trafic Volume（veh／h） | 580 | 535 | 235 | 325 | 800 | 135 | 335 | 400 | 220 | 185 | 900 | 1140 |
| Future Volume（veh／h） | 580 | 535 | 235 | 325 | 800 | 135 | 335 | 400 | 220 | 185 | 900 | 1140 |
| Initial $Q(Q b)$ ，veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus，Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow，veh／h／ln | 1595 | 1657 | 1643 | 1569 | 1643 | 1643 | 1657 | 1630 | 1670 | 1670 | 1697 | 1683 |
| Adj Flow Rate，veh／h | 630 | 582 | 0 | 353 | 870 | 0 | 364 | 435 | 0 | 201 | 978 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh，\％ | 2 | 4 | 5 | 4 | 5 | 5 | 4 | 6 | 3 | 3 | 1 | 2 |
| Cap，veh／h | 562 | 875 |  | 505 | 816 |  | 280 | 916 |  | 371 | 821 |  |
| Arrive On Green | 0.19 | 0.28 | 0.00 | 0.17 | 0.26 | 0.00 | 0.15 | 0.30 | 0.00 | 0.11 | 0.25 | 0.00 |
| Sat Flow，veh／h | 2946 | 3148 | 1393 | 2900 | 3122 | 1393 | 1578 | 3097 | 1415 | 1590 | 3224 | 1427 |
| Grp Volume（v），veh／h | 630 | 582 | 0 | 353 | 870 | 0 | 364 | 435 | 0 | 201 | 978 | 0 |
| Grp Sat Flow（s），veh／h／ln | 1473 | 1574 | 1393 | 1450 | 1561 | 1393 | 1578 | 1548 | 1415 | 1590 | 1612 | 1427 |
| Q Serve（g＿s），s | 28.6 | 24.6 | 0.0 | 17.2 | 39.2 | 0.0 | 22.1 | 17.3 | 0.0 | 13.9 | 38.2 | 0.0 |
| Cycle Q Clear（g＿c），s | 28.6 | 24.6 | 0.0 | 17.2 | 39.2 | 0.0 | 22.1 | 17.3 | 0.0 | 13.9 | 38.2 | 0.0 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Lane Grp Cap（c），veh／h | 562 | 875 |  | 505 | 816 |  | 280 | 916 |  | 371 | 821 |  |
| V／C Ratio（X） | 1.12 | 0.67 |  | 0.70 | 1.07 |  | 1.30 | 0.48 |  | 0.54 | 1.19 |  |
| Avail Cap（c＿a），veh／h | 562 | 875 |  | 505 | 816 |  | 280 | 916 |  | 405 | 821 |  |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter（l） | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay（d），s／veh | 60.7 | 48.0 | 0.0 | 58.3 | 55.4 | 0.0 | 47.0 | 43.3 | 0.0 | 35.6 | 55.9 | 0.0 |
| Incr Delay（d2），s／veh | 75.9 | 4.0 | 0.0 | 3.6 | 50.7 | 0.0 | 157.8 | 0.4 | 0.0 | 0.5 | 98.1 | 0.0 |
| Initial Q Delay（d3），s／veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \％ile BackOfQ（50\％），veh／ln | 16.2 | 9.8 | 0.0 | 6.4 | 20.5 | 0.0 | 19.4 | 6.6 | 0.0 | 5.3 | 26.3 | 0.0 |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh | 136.6 | 51.9 | 0.0 | 61.9 | 106.1 | 0.0 | 204.9 | 43.7 | 0.0 | 36.1 | 154.0 | 0.0 |


| LnGrp LOS | F | D | E | F | F | D | D | F |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Approach Vol，veh／h | 1212 | A | 1223 | A | 799 | A | 1179 | A |
| Approach Delay，s／veh | 96.0 |  | 93.3 |  | 117.1 |  | 133.9 |  |
| Approach LOS | F |  | F |  | F |  | F |  |


| Timer－Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Phs Duration（ $\mathrm{G}+\mathrm{Y}+\mathrm{Rc}$ ）， s | 21.8 | 50.2 | 33.0 | 48.5 | 28.0 | 44.0 | 35.5 | 46.0 |  |
| Change Period（ $Y+R \mathrm{R}$ ），s | 5.9 | ＊ 5.8 | ＊ 6.8 | ＊ 6.8 | 5.9 | ＊5．8 | ＊ 6.8 | ＊ 6.8 |  |
| Max Green Setting（Gmax），s | 19.2 | ＊41 | ＊23 | ＊ 42 | 22.1 | ＊ 38 | ＊ 25 | ＊ 39 |  |
| Max Q Clear Time（g＿c＋11），s | 15.9 | 19.3 | 19.2 | 26.6 | 24.1 | 40.2 | 30.6 | 41.2 |  |
| Green Ext Time（p＿c），s | 0.1 | 2.5 | 0.2 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 |  |

Intersection Summary

| HCM 6th Ctrl Delay | 109.2 |
| :--- | ---: |
| HCM 6th LOS | F |

## Notes

＊HCM 6th computational engine requires equal clearance times for the phases crossing the barrier．
Unsignalized Delay for［NBR，EBR，WBR，SBR］is excluded from calculations of the approach delay and intersection delay．


| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 78.1 |  |  |  |  |  |  |  |  |  |  |  |  |




| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | \% | $\uparrow$ | F | ${ }^{4}$ | $\hat{\beta}$ |  | * | $\uparrow$ | F | ${ }_{1}$ | $\uparrow$ | 7 |
| Trafic Volume (vph) | 85 | 520 | 500 | 720 | 760 | 20 | 405 | 80 | 590 | 55 | 275 | 175 |
| Future Volume (vph) | 85 | 520 | 500 | 720 | 760 | 20 | 405 | 80 | 590 | 55 | 275 | 175 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1800 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.5 | 7.0 | 7.0 | 4.5 | 7.0 |  | 5.0 | 5.0 | 4.0 | 5.0 | 5.0 | 4.0 |
| Lane Utill. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 |  | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |  | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | 1770 | 1845 | 1583 | 1660 | 1769 |  | 1504 | 1863 | 1583 | 1671 | 1863 | 1615 |
| Flt Permitted | 0.17 | 1.00 | 1.00 | 0.14 | 1.00 |  | 0.44 | 1.00 | 1.00 | 0.70 | 1.00 | 1.00 |
| Satd. Flow (perm) | 312 | 1845 | 1583 | 246 | 1769 |  | 690 | 1863 | 1583 | 1232 | 1863 | 1615 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 92 | 565 | 543 | 783 | 826 | 22 | 440 | 87 | 641 | 60 | 299 | 190 |
| RTOR Reduction (vph) | 0 | 0 | 157 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 92 | 565 | 386 | 783 | 847 | 0 | 440 | 87 | 641 | 60 | 299 | 190 |
| Heavy Vehicles (\%) | 2\% | 3\% | 2\% | 3\% | 6\% | 43\% | 20\% | 2\% | 2\% | 8\% | 2\% | 0\% |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA |  | Perm | NA | Free | Perm | NA | Free |
| Protected Phases | 5 | 2 |  | 1 | 6 |  |  | 8 |  |  | 4 |  |
| Permitted Phases | 2 |  | 2 | 6 |  |  | 8 |  | Free | 4 |  | Free |
| Actuated Green, G (s) | 29.5 | 23.9 | 23.9 | 43.9 | 33.8 |  | 25.0 | 25.0 | 80.9 | 25.0 | 25.0 | 80.9 |
| Effective Green, g (s) | 29.5 | 23.9 | 23.9 | 43.9 | 33.8 |  | 25.0 | 25.0 | 80.9 | 25.0 | 25.0 | 80.9 |
| Actuated g/C Ratio | 0.36 | 0.30 | 0.30 | 0.54 | 0.42 |  | 0.31 | 0.31 | 1.00 | 0.31 | 0.31 | 1.00 |
| Clearance Time (s) | 4.5 | 7.0 | 7.0 | 4.5 | 7.0 |  | 5.0 | 5.0 |  | 5.0 | 5.0 |  |
| Vehicle Extension (s) | 2.5 | 5.0 | 5.0 | 2.5 | 5.0 |  | 3.0 | 3.0 |  | 3.0 | 3.0 |  |
| Lane Grp Cap (vph) | 214 | 545 | 467 | 404 | 739 |  | 213 | 575 | 1583 | 380 | 575 | 1615 |
| v/s Ratio Prot | 0.03 | 0.31 |  | c0.37 | 0.48 |  |  | 0.05 |  |  | 0.16 |  |
| v/s Ratio Perm | 0.13 |  | 0.24 | c0.68 |  |  | c0.64 |  | 0.40 | 0.05 |  | 0.12 |
| v/c Ratio | 0.43 | 1.04 | 0.83 | 1.94 | 1.15 |  | 2.07 | 0.15 | 0.40 | 0.16 | 0.52 | 0.12 |
| Uniform Delay, d1 | 19.8 | 28.5 | 26.6 | 22.6 | 23.6 |  | 28.0 | 20.3 | 0.0 | 20.3 | 23.0 | 0.0 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 1.0 | 48.4 | 12.7 | 431.2 | 81.1 |  | 495.4 | 0.1 | 0.8 | 0.2 | 0.9 | 0.1 |
| Delay (s) | 20.8 | 76.9 | 39.2 | 453.8 | 104.7 |  | 523.4 | 20.4 | 0.8 | 20.5 | 23.9 | 0.1 |
| Level of Service | C | E | D | F | F |  | F | C | A | C | C | A |
| Approach Delay (s) |  | 55.5 |  |  | 272.3 |  |  | 199.1 |  |  | 15.3 |  |
| Approach LOS |  | E |  |  | F |  |  | F |  |  | B |  |


| Intersection Summary |  |  |  |
| :--- | ---: | :--- | ---: |
| HCM 2000 Control Delay | 165.3 | HCM 2000 Level of Service | F |
| HCM 2000 Volume to Capacity ratio | 2.07 |  | 16.5 |
| Actuated Cycle Length (s) | 80.9 | Sum of lost time (s) | H |

Analysis Period (min) 15
c Critical Lane Group

| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |





| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 0.4 |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | \% | $\hat{F}$ |  | ${ }^{1}$ | $\hat{F}$ |  |  | 4 |  |  | 4 |  |
| Traffic Vol, veh/h | 65 | 980 | 45 | 30 | 1300 | 65 | 70 | 100 | 30 | 150 | 100 | 135 |
| Future Vol, veh/h | 65 | 980 | 45 | 30 | 1300 | 65 | 70 | 100 | 30 | 150 | 100 | 135 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 430 | - | - | 350 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, \# | \# | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, \% | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 6 | 3 | 0 | 0 | 5 | 14 | 0 | 0 | 60 | 17 | 0 | 3 |
| Mvmt Flow | 71 | 1065 | 49 | 33 | 1413 | 71 | 76 | 109 | 33 | 163 | 109 | 147 |


| Major/Minor | Major1 |  | Major2 |  |  | Minor1 |  |  | Minor2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 1484 | 0 | 0 | 1114 | 0 | 0 | 2875 | 2782 | 1090 | 2818 | 2771 | 1449 |  |
| Stage 1 |  | - | - | - | - | - - | 1232 | 1232 |  | 1515 | 1515 |  |  |
| Stage 2 | - | - | - | - | - | - - | 1643 | 1550 | - | 1303 | 1256 |  |  |
| Critical Hdwy | 4.16 | - | - | 4.1 | - | - - | 7.1 | 6.5 | 6.8 | 7.27 | 6.5 | 6.23 |  |
| Critical Hdwy Stg 1 | - | - | - | - | - | - - | 6.1 | 5.5 | - | 6.27 | 5.5 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | - | - - | 6.1 | 5.5 | - | 6.27 | 5.5 | - |  |
| Follow-up Hdwy | 2.254 | - | - | 2.2 | - | - - | 3.5 | 4 | 3.84 | 3.653 | 4 | 3.327 |  |
| Pot Cap-1 Maneuver | 441 | - | - | 634 | - | - - | ~11 | ~19 | 202 | ~10 | $\sim 20$ | 160 |  |
| Stage 1 | - | - | - | - | - | - - | 219 | 252 |  | $\sim 138$ | 184 | - |  |
| Stage 2 | - | - | - | - | - | - - | 127 | 177 | - | 184 | 245 | - |  |
| Platoon blocked, \% |  | - | - |  | - | - - |  |  |  |  |  |  |  |
| Mov Cap-1 Maneuver | 441 | - | - | 634 | - | - - | - | ~15 | 202 | - | $\sim 16$ | 160 |  |
| Mov Cap-2 Maneuver | - | - | - | - | - | - - | - | $\sim 15$ | - | - | $\sim 16$ | - |  |
| Stage 1 | - | - | - | - |  | - - | 184 | 211 |  | $\sim 116$ | 174 | - |  |
| Stage 2 | - | - | - | - | - | - - | $\sim 4$ | 168 | - | ~63 | 206 | - |  |
| Approach | EB |  |  | WB |  |  | NB |  |  | SB |  |  |  |
| HCM Control Delay, s | 0.9 |  |  | 0.2 |  |  |  |  |  |  |  |  |  |
| HCM LOS |  |  |  |  |  |  | - |  |  | - |  |  |  |
| Minor Lane/Major Mvm |  |  | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |  |  |  |  |
| Capacity (veh/h) |  | - | 441 | - |  | 634 | - | - |  |  |  |  |  |
| HCM Lane V/C Ratio |  | - | 0.16 | - |  | - 0.051 | - | - | - |  |  |  |  |
| HCM Control Delay (s) |  | - | 14.7 | - | - | 11 | - | - | - |  |  |  |  |
| HCM Lane LOS |  | - | B | - | - | B | - | - | - |  |  |  |  |
| HCM 95th \%tile Q(veh) |  | - | 0.6 | - | - | 0.2 | - | - | - |  |  |  |  |
| Notes |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\sim$ : Volume exceeds cap | pacity |  | ay exc | eeds 3 |  | +: Comp | putation | Not De | fined | *: All | major | volume | in platoon |


| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | \% | $\uparrow$ | F | \% | $\hat{\beta}$ |  |  | ¢ |  |  | $\uparrow$ | $\overline{7}$ |
| Traffic Volume (vph) | 85 | 960 | 115 | 270 | 990 | 200 | 255 | 190 | 480 | 160 | 315 | 150 |
| Future Volume (vph) | 85 | 960 | 115 | 270 | 990 | 200 | 255 | 190 | 480 | 160 | 315 | 150 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 7.0 | 7.0 | 5.0 | 7.0 |  |  | 5.0 |  |  | 5.0 | 5.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  | 1.00 |  |  | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 0.97 |  |  | 0.93 |  |  | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |  |  | 0.99 |  |  | 0.98 | 1.00 |
| Satd. Flow (prot) | 1719 | 1845 | 1615 | 1805 | 1734 |  |  | 1662 |  |  | 1868 | 1599 |
| Flt Permitted | 0.07 | 1.00 | 1.00 | 0.07 | 1.00 |  |  | 0.43 |  |  | 0.53 | 1.00 |
| Satd. Flow (perm) | 134 | 1845 | 1615 | 133 | 1734 |  |  | 725 |  |  | 998 | 1599 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 92 | 1043 | 125 | 293 | 1076 | 217 | 277 | 207 | 522 | 174 | 342 | 163 |
| RTOR Reduction (vph) | 0 | 0 | 33 | 0 | 5 | 0 | 0 | 26 | 0 | 0 | 0 | 36 |
| Lane Group Flow (vph) | 92 | 1043 | 92 | 293 | 1288 | 0 | 0 | 980 | 0 | 0 | 516 | 127 |
| Heavy Vehicles (\%) | 5\% | 3\% | 0\% | 0\% | 6\% | 11\% | 6\% | 3\% | 5\% | 0\% | 0\% | 1\% |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA |  | Perm | NA |  | Perm | NA | Perm |
| Protected Phases | 5 | , |  | 1 | 6 |  |  | 8 |  |  | 4 |  |
| Permitted Phases | 2 |  | 2 | 6 |  |  | 8 |  |  | 4 |  | 4 |
| Actuated Green, G (s) | 62.0 | 54.0 | 54.0 | 68.0 | 57.0 |  |  | 68.0 |  |  | 68.0 | 68.0 |
| Effective Green, g (s) | 62.0 | 54.0 | 54.0 | 68.0 | 57.0 |  |  | 68.0 |  |  | 68.0 | 68.0 |
| Actuated g/C Ratio | 0.41 | 0.36 | 0.36 | 0.45 | 0.38 |  |  | 0.45 |  |  | 0.45 | 0.45 |
| Clearance Time (s) | 5.0 | 7.0 | 7.0 | 5.0 | 7.0 |  |  | 5.0 |  |  | 5.0 | 5.0 |
| Vehicle Extension (s) | 3.0 | 5.0 | 5.0 | 3.0 | 5.0 |  |  | 3.0 |  |  | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 139 | 664 | 581 | 182 | 658 |  |  | 328 |  |  | 452 | 724 |
| v/s Ratio Prot | 0.04 | 0.57 |  | c0.12 | c0.74 |  |  |  |  |  |  |  |
| v/s Ratio Perm | 0.24 |  | 0.06 | 0.61 |  |  |  | c1.35 |  |  | 0.52 | 0.08 |
| v/c Ratio | 0.66 | 1.57 | 0.16 | 1.61 | 1.96 |  |  | 2.99 |  |  | 1.14 | 0.18 |
| Uniform Delay, d1 | 36.1 | 48.0 | 32.6 | 44.6 | 46.5 |  |  | 41.0 |  |  | 41.0 | 24.4 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  | 1.00 |  |  | 1.00 | 1.00 |
| Incremental Delay, d2 | 11.2 | 264.1 | 0.3 | 298.5 | 436.4 |  |  | 903.1 |  |  | 87.2 | 0.1 |
| Delay (s) | 47.3 | 312.1 | 32.9 | 343.0 | 482.9 |  |  | 944.1 |  |  | 128.2 | 24.5 |
| Level of Service | D | F | C | F | F |  |  | F |  |  | F | C |
| Approach Delay (s) |  | 265.1 |  |  | 457.1 |  |  | 944.1 |  |  | 103.3 |  |
| Approach LOS |  | F |  |  | F |  |  | F |  |  | F |  |


| Intersection Summary |  |  |  |
| :--- | ---: | :--- | ---: |
| HCM 2000 Control Delay | 458.8 | HCM 2000 Level of Service | F |
| HCM 2000 Volume to Capacity ratio | 2.49 |  | 17.0 |
| Actuated Cycle Length (s) | 150.0 | Sum of lost time (s) | H |
| Intersection Capacity Utilization | $168.2 \%$ | ICU Level of Service |  |

Analysis Period (min) 15
c Critical Lane Group





| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | \% | $\uparrow$ | F | \% | $\hat{\beta}$ |  | \% | $\hat{\beta}$ |  |  | \$ |  |
| Traffic Volume (veh/h) | 300 | 480 | 420 | 400 | 835 | 90 | 450 | 300 | 115 | 50 | 210 | 245 |
| Future Volume (veh/h) | 300 | 480 | 420 | 400 | 835 | 90 | 450 | 300 | 115 | 50 | 210 | 245 |
| Initial $Q(Q b)$, veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow, veh/h/ln | 1633 | 1781 | 1870 | 1781 | 1796 | 1796 | 1633 | 1826 | 1826 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 326 | 522 | 457 | 435 | 908 | 98 | 489 | 326 | 125 | 54 | 228 | 266 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% | 18 | 8 | 2 | 8 | 7 | 7 | 18 | 5 | 5 | 4 | 4 | 4 |
| Cap, veh/h | 223 | 562 | 500 | 321 | 564 | 61 | 371 | 522 | 200 | 57 | 149 | 165 |
| Arrive On Green | 0.11 | 0.32 | 0.32 | 0.15 | 0.35 | 0.35 | 0.16 | 0.42 | 0.42 | 0.22 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1555 | 1781 | 1585 | 1697 | 1593 | 172 | 1555 | 1257 | 482 | 123 | 691 | 767 |
| Grp Volume(v), veh/h | 326 | 522 | 457 | 435 | 0 | 1006 | 489 | 0 | 451 | 548 | 0 | 0 |
| Grp Sat Flow(s),veh/h/n | 1555 | 1781 | 1585 | 1697 | 0 | 1765 | 1555 | 0 | 1739 | 1581 | 0 | 0 |
| Q Serve(g_s), s | 14.0 | 36.9 | 36.1 | 19.0 | 0.0 | 46.0 | 21.0 | 0.0 | 26.6 | 22.4 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 14.0 | 36.9 | 36.1 | 19.0 | 0.0 | 46.0 | 21.0 | 0.0 | 26.6 | 28.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 0.10 | 1.00 |  | 0.28 | 0.10 |  | 0.49 |
| Lane Grp Cap(c), veh/h | 223 | 562 | 500 | 321 | 0 | 625 | 371 | 0 | 722 | 371 | 0 | 0 |
| V/C Ratio(X) | 1.46 | 0.93 | 0.91 | 1.36 | 0.00 | 1.61 | 1.32 | 0.00 | 0.62 | 1.48 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 223 | 562 | 500 | 321 | 0 | 625 | 371 | 0 | 722 | 371 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 37.6 | 43.1 | 42.8 | 37.8 | 0.0 | 42.0 | 35.0 | 0.0 | 30.0 | 52.0 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 231.1 | 22.3 | 21.7 | 179.5 | 0.0 | 282.1 | 161.3 | 0.0 | 2.4 | 228.9 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \%ile BackOfQ $(50 \%$ ),veh/In | 18.7 | 18.8 | 16.3 | 21.9 | 0.0 | 67.6 | 25.3 | 0.0 | 10.9 | 35.4 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay(d),s/veh | 268.8 | 65.4 | 64.5 | 217.4 | 0.0 | 324.1 | 196.2 | 0.0 | 32.4 | 280.8 | 0.0 | 0.0 |
| LnGrp LOS | F | E | E | F | A | F | F | A | C | F | A | A |
| Approach Vol, veh/h |  | 1305 |  |  | 1441 |  |  | 940 |  |  | 548 |  |
| Approach Delay, s/veh |  | 115.9 |  |  | 291.9 |  |  | 117.6 |  |  | 280.8 |  |
| Approach LOS |  | F |  |  | F |  |  | F |  |  | F |  |


| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 8 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Phs Duration (G+Y+Rc), s | 24.0 | 47.0 | 26.0 | 33.0 | 19.0 | 52.0 | 59.0 |
| Change Period (Y+Rc), s | 5.0 | 6.0 | 5.0 | 5.0 | 5.0 | 6.0 | 5.0 |
| Max Green Setting (Gmax), s | 19.0 | 41.0 | 21.0 | 28.0 | 14.0 | 46.0 | 54.0 |
| Max Q Clear Time (g_c+11), s | 21.0 | 38.9 | 23.0 | 30.0 | 16.0 | 48.0 | 28.6 |
| Green Ext Time (p_c), s | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 5.1 |

## Intersection Summary

HCM 6th Ctrl Delay 197.5

HCM 6th LOS
F

| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh 3953 | 53.3 |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  | * |  |  | $\uparrow$ |  |  | $\uparrow$ |  |  | 4 |  |
| Traffic Vol, veh/h | 75 | 485 | 85 | 150 | 1090 | 20 | 135 | 10 | 105 | 125 | 10 | 100 |
| Future Vol, veh/h | 75 | 485 | 85 | 150 | 1090 | 20 | 135 | 10 | 105 | 125 | 10 | 100 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, \# | \# | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, \% | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 0 | 11 | 25 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 82 | 527 | 92 | 163 | 1185 | 22 | 147 | 11 | 114 | 136 | 11 | 109 |




| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 3.5 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | a | $\mathbf{4}$ | $\mathbf{4}$ | $\mathbf{F}$ | r |  |
| Traffic Vol, veh/h | 50 | 660 | 605 | 20 | 20 | 160 |
| Future Vol, veh/h | 50 | 660 | 605 | 20 | 20 | 160 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 525 | - | - | 550 | 0 | - |
| Veh in Median Storage, $\#$ | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 0 | 10 | 11 | 46 | 13 | 0 |
| Mvmt Flow | 54 | 717 | 658 | 22 | 22 | 174 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 2.7 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | $\uparrow$ |  |  | $\uparrow$ |  |  |
| Traffic Vol, veh/h | 655 | 25 | 5 | 550 | 75 | 5 |
| Future Vol, veh/h | 655 | 25 | 5 | 550 | 75 | 5 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - None | - | None |  |
| Storage Length | - | - | - | - | 0 | - |
| Ven in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 10 | 0 | 0 | 14 | 0 | 0 |
| Mvmt Flow | 712 | 27 | 5 | 598 | 82 | 5 |





## F.2. 2040 PM No Action

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | \％ | 个个 | 7 | \％ | 个4 | F | \％ | $\hat{F}$ |  | \％ | $\hat{\beta}$ |  |
| Traffic Volume（veh／h） | 30 | 990 | 15 | 110 | 885 | 40 | 15 | 10 | 95 | 30 | 10 | 30 |
| Future Volume（veh／h） | 30 | 990 | 15 | 110 | 885 | 40 | 15 | 10 | 95 | 30 | 10 | 30 |
| Initial $Q(Q b)$ ，veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus，Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow，veh／h／ln | 1870 | 1826 | 1870 | 1870 | 1826 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate，veh／h | 33 | 1076 | 16 | 120 | 962 | 43 | 16 | 11 | 103 | 33 | 11 | 33 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh，\％ | 2 | 5 | 2 | 2 | 5 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap，veh／h | 314 | 938 | 429 | 483 | 1954 | 893 | 358 | 26 | 242 | 293 | 68 | 205 |
| Arrive On Green | 0.27 | 0.27 | 0.27 | 0.18 | 0.56 | 0.56 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 |
| Sat Flow，veh／h | 561 | 3469 | 1585 | 1781 | 3469 | 1585 | 1362 | 155 | 1454 | 1279 | 412 | 1236 |
| Grp Volume（v），veh／h | 33 | 1076 | 16 | 120 | 962 | 43 | 16 | 0 | 114 | 33 | 0 | 44 |
| Grp Sat Flow（s），veh／h／n | 561 | 1735 | 1585 | 1781 | 1735 | 1585 | 1362 | 0 | 1609 | 1279 | 0 | 1648 |
| Q Serve（g＿s），s | 2.0 | 12.0 | 0.3 | 1.6 | 7.4 | 0.5 | 0.5 | 0.0 | 2.8 | 1.1 | 0.0 | 1.0 |
| Cycle Q Clear（g＿c），s | 2.0 | 12.0 | 0.3 | 1.6 | 7.4 | 0.5 | 1.5 | 0.0 | 2.8 | 3.9 | 0.0 | 1.0 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.90 | 1.00 |  | 0.75 |
| Lane Grp Cap（c），veh／h | 314 | 938 | 429 | 483 | 1954 | 893 | 358 | 0 | 267 | 293 | 0 | 274 |
| V／C Ratio（X） | 0.11 | 1.15 | 0.04 | 0.25 | 0.49 | 0.05 | 0.04 | 0.00 | 0.43 | 0.11 | 0.00 | 0.16 |
| Avail Cap（c＿a），veh／h | 314 | 938 | 429 | 483 | 1954 | 893 | 377 | 0 | 290 | 311 | 0 | 297 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter（1） | 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 | 12.5 | 16.2 | 11.9 | 8.3 | 5.9 | 4.3 | 16.5 | 0.0 | 16.6 | 18.3 | 0.0 | 15.8 |
| Incr Delay（d2），s／veh | 0.2 | 78.7 | 0.1 | 0.3 | 0.3 | 0.0 | 0.1 | 0.0 | 1.5 | 0.2 | 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 | 0.2 | 13.6 | 0.1 | 0.3 | 1.1 | 0.1 | 0.1 | 0.0 | 1.0 | 0.3 | 0.0 | 0.4 |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh | 12.8 | 94.9 | 12.0 | 8.5 | 6.1 | 4.4 | 16.5 | 0.0 | 18.1 | 18.6 | 0.0 | 16.2 |
| LnGrp LOS | B | F | B | A | A | A | B | A | B | B | A | B |
| Approach Vol，veh／h |  | 1125 |  |  | 1125 |  |  | 130 |  |  | 77 |  |
| Approach Delay，s／veh |  | 91.3 |  |  | 6.3 |  |  | 17.9 |  |  | 17.2 |  |
| Approach LOS |  | F |  |  | A |  |  | B |  |  | B |  |


| Timer－Assigned Phs | 1 | 2 | 4 | 6 | 8 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Phs Duration（G＋Y＋Rc），s | 13.0 | 18.0 | 13.4 | 31.0 | 13.4 |
| Change Period（Y＋Rc），s | 5.0 | 6.0 | 6.0 | 6.0 | 6.0 |
| Max Green Setting（Gmax），s | 8.0 | 12.0 | 8.0 | 25.0 | 8.0 |
| Max Q Clear Time（g＿c＋11），s | 3.6 | 14.0 | 5.9 | 9.4 | 4.8 |
| Green Ext Time（p＿c），s | 0.1 | 0.0 | 0.1 | 7.4 | 0.2 |

## Intersection Summary

| HCM 6th Ctrl Delay | 46.2 |
| :--- | ---: |
| HCM 6th LOS | $D$ |

Notes
User approved pedestrian interval to be less than phase max green．

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | \% | 个4 | F | ${ }_{1}$ | 中 ${ }^{\text {d }}$ |  | ${ }_{1}$ | $\uparrow$ | F' |  | \$ |  |
| Trafic Volume (vph) | 25 | 340 | 360 | 60 | 490 | 30 | 490 | 35 | 365 | 40 | 50 | 60 |
| Future Volume (vph) | 25 | 340 | 360 | 60 | 490 | 30 | 490 | 35 | 365 | 40 | 50 | 60 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  | 6.0 | 6.0 | 6.0 |  | 6.0 |  |
| Lane Utill. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 |  | 0.95 | 0.95 | 1.00 |  | 1.00 |  |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 0.99 |  | 1.00 | 1.00 | 0.85 |  | 0.95 |  |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |  | 0.95 | 0.96 | 1.00 |  | 0.99 |  |
| Satd. Flow (prot) | 1624 | 3185 | 1425 | 1593 | 3104 |  | 1442 | 1468 | 1358 |  | 1596 |  |
| Flt Permitted | 0.34 | 1.00 | 1.00 | 0.52 | 1.00 |  | 0.95 | 0.96 | 1.00 |  | 0.99 |  |
| Satd. Flow (perm) | 589 | 3185 | 1425 | 874 | 3104 |  | 1442 | 1468 | 1358 |  | 1596 |  |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 27 | 370 | 391 | 65 | 533 | 33 | 533 | 38 | 397 | 43 | 54 | 65 |
| RTOR Reduction (vph) | 0 | 0 | 281 | 0 | 5 | 0 | 0 | 0 | 224 | 0 | 27 | 0 |
| Lane Group Flow (vph) | 27 | 370 | 110 | 65 | 561 | 0 | 282 | 289 | 173 | 0 | 135 | 0 |
| Heavy Vehicles (\%) | 0\% | 2\% | 2\% | 2\% | 4\% | 0\% | 7\% | 0\% | 7\% | 0\% | 0\% | 0\% |
| Turn Type | Perm | NA | Perm | Perm | NA |  | Split | NA | Perm | Split | NA |  |
| Protected Phases |  | 2 |  |  | 6 |  | 4 | 4 |  | 8 | 8 |  |
| Permitted Phases | 2 |  | 2 | 6 |  |  |  |  | 4 |  |  |  |
| Actuated Green, G (s) | 20.6 | 20.6 | 20.6 | 20.6 | 20.6 |  | 22.6 | 22.6 | 22.6 |  | 12.1 |  |
| Effective Green, g (s) | 20.6 | 20.6 | 20.6 | 20.6 | 20.6 |  | 22.6 | 22.6 | 22.6 |  | 12.1 |  |
| Actuated g/C Ratio | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 |  | 0.31 | 0.31 | 0.31 |  | 0.17 |  |
| Clearance Time (s) | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 |  | 6.0 | 6.0 | 6.0 |  | 6.0 |  |
| Vehicle Extension (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |  | 4.0 | 4.0 | 4.0 |  | 4.0 |  |
| Lane Grp Cap (vph) | 165 | 895 | 400 | 245 | 872 |  | 444 | 452 | 418 |  | 263 |  |
| v/s Ratio Prot |  | 0.12 |  |  | c0.18 |  | 0.20 | c0.20 |  |  | c0.08 |  |
| v/s Ratio Perm | 0.05 |  | 0.08 | 0.07 |  |  |  |  | 0.13 |  |  |  |
| v/c Ratio | 0.16 | 0.41 | 0.27 | 0.27 | 0.64 |  | 0.64 | 0.64 | 0.41 |  | 0.51 |  |
| Uniform Delay, d1 | 19.9 | 21.4 | 20.5 | 20.5 | 23.1 |  | 21.8 | 21.8 | 20.1 |  | 27.9 |  |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  | 1.00 | 1.00 | 1.00 |  | 1.00 |  |
| Incremental Delay, d2 | 0.6 | 0.4 | 0.5 | 0.8 | 1.8 |  | 3.3 | 3.3 | 0.9 |  | 2.3 |  |
| Delay (s) | 20.5 | 21.9 | 21.0 | 21.3 | 25.0 |  | 25.1 | 25.2 | 21.0 |  | 30.2 |  |
| Level of Service | C | C | C | C | C |  | C | C | C |  | C |  |
| Approach Delay (s) |  | 21.4 |  |  | 24.6 |  |  | 23.5 |  |  | 30.2 |  |
| Approach LOS |  | C |  |  | C |  |  | C |  |  | C |  |


| Intersection Summary |  |  |  |
| :--- | ---: | :--- | ---: |
| HCM 2000 Control Delay | 23.5 | HCM 2000 Level of Service | C |
| HCM 2000 Volume to Capacity ratio | 0.61 |  | 18.0 |
| Actuated Cycle Length (s) | 73.3 | Sum of lost time (s) | B |

Analysis Period (min)
15
c Critical Lane Group

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | \% | $\uparrow$ | F' | ${ }^{7}$ | $\uparrow$ | 7 |  | ¢ |  |  | \$ |  |
| Traffic Volume (veh/h) | 80 | 960 | 95 | 55 | 425 | 10 | 135 | 175 | 285 | 5 | 15 | 15 |
| Future Volume (veh/h) | 80 | 960 | 95 | 55 | 425 | 10 | 135 | 175 | 285 | 5 | 15 | 15 |
| Initial $Q(Q b)$, veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow, veh/h/ln | 1737 | 1856 | 1900 | 1870 | 1826 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 87 | 1043 | 103 | 60 | 462 | 11 | 147 | 190 | 0 | 5 | 16 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% | 11 | 3 | 0 | 2 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 505 | 1009 | 876 | 175 | 980 | 864 | 213 | 224 |  | 108 | 319 |  |
| Arrive On Green | 0.06 | 0.54 | 0.54 | 0.06 | 0.54 | 0.54 | 0.23 | 0.23 | 0.00 | 0.23 | 0.23 | 0.00 |
| Sat Flow, veh/h | 1654 | 1856 | 1610 | 1781 | 1826 | 1610 | 694 | 971 | 0 | 272 | 1382 | 0 |
| Grp Volume(v), veh/h | 87 | 1043 | 103 | 60 | 462 | 11 | 337 | 0 | 0 | 21 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1654 | 1856 | 1610 | 1781 | 1826 | 1610 | 1665 | 0 | 0 | 1654 | 0 | 0 |
| Q Serve(g_s), s | 2.2 | 53.5 | 3.1 | 1.4 | 15.4 | 0.3 | 18.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 2.2 | 53.5 | 3.1 | 1.4 | 15.4 | 0.3 | 19.2 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 0.44 |  | 0.00 | 0.24 |  | 0.00 |
| Lane Grp Cap(c), veh/h | 505 | 1009 | 876 | 175 | 980 | 864 | 437 | 0 |  | 427 | 0 |  |
| V/C Ratio(X) | 0.17 | 1.03 | 0.12 | 0.34 | 0.47 | 0.01 | 0.77 | 0.00 |  | 0.05 | 0.00 |  |
| Avail Cap(c_a), veh/h | 517 | 1009 | 876 | 200 | 991 | 874 | 610 | 0 |  | 602 | 0 |  |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 9.6 | 22.4 | 10.9 | 22.6 | 14.1 | 10.6 | 36.4 | 0.0 | 0.0 | 29.4 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.2 | 37.2 | 0.1 | 1.1 | 0.4 | 0.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \%ile BackOfQ(50\%),veh/ln | 0.7 | 29.6 | 1.0 | 0.7 | 5.6 | 0.1 | 8.1 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay(d),s/veh | 9.8 | 59.7 | 11.0 | 23.7 | 14.5 | 10.6 | 40.4 | 0.0 | 0.0 | 29.5 | 0.0 | 0.0 |
| LnGrp LOS | A | F | B | C | B | B | D | A |  | C | A |  |
| Approach Vol, veh/h |  | 1233 |  |  | 533 |  |  | 337 | A |  | 21 | A |
| Approach Delay, s/veh |  | 52.1 |  |  | 15.4 |  |  | 40.4 |  |  | 29.5 |  |
| Approach LOS |  | D |  |  | B |  |  | D |  |  | C |  |


| Timer - Assigned Phs | 1 | 2 | 4 | 5 | 6 | 8 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Phs Duration (G+Y+Rc), s | 10.1 | 60.5 | 27.7 | 10.8 | 59.8 | 27.7 |
| Change Period (Y+Rc), s | 4.5 | 7.0 | 5.0 | 4.5 | 7.0 | 5.0 |
| Max Green Setting (Gmax), s | 7.0 | 53.5 | 33.0 | 7.1 | 53.4 | 33.0 |
| Max Q Clear Time (g_c+11), s | 3.4 | 55.5 | 2.8 | 4.2 | 17.4 | 21.2 |
| Green Ext Time (p_c), s | 0.0 | 0.0 | 0.1 | 0.0 | 2.7 | 1.5 |

## Intersection Summary

| HCM 6th Ctrl Delay | 40.8 |
| :--- | ---: |
| HCM 6th LOS | $D$ |

Notes
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.





| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.8 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | 1 | 4 | $\mathbf{T}$ |  | r |  |
| Traffic Vol, veh/h | 5 | 1195 | 615 | 30 | 15 | 5 |
| Future Vol, veh/h | 5 | 1195 | 615 | 30 | 15 | 5 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 200 | - | - | - | 0 | - |
| Veh in Median Storage, \# | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 0 | 3 | 4 | 25 | 25 | 0 |
| Mvmt Flow | 5 | 1299 | 668 | 33 | 16 | 5 |



| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 15.2 |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |  |
| Lane Configurations |  | \$ |  |  | ¢ |  |  | \$ |  |  | \$ |  |  |
| Traffic Vol, veh/h | 5 | 1200 | 5 | 25 | 635 | 25 | 5 | 10 | 30 | 30 | 10 | 5 |  |
| Future Vol, veh/h | 5 | 1200 | 5 | 25 | 635 | 25 | 5 | 10 | 30 | 30 | 10 | 5 |  |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |  |
| RT Channelized | - | - | None | - | - | None | - |  | None | - |  | None |  |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |  |
| Veh in Median Storage, \# | \# | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |  |
| Grade, \% | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |  |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |  |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  |
| Mumt Flow | 5 | 1304 | 5 | 27 | 690 | 27 | 5 | 11 | 33 | 33 | 11 | 5 |  |


| Major/Minor $\quad$ N | Major1 |  | Major2 |  |  | Minor1 |  |  | Minor2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 717 | 0 | 0 | 1309 | 0 | 0 | 2083 | 2088 | 1307 | 2097 | 2077 | 704 |  |
| Stage 1 | - | - | - | - | - | - | 1317 | 1317 |  | 758 | 758 | - |  |
| Stage 2 | - | - | - | - | - | - | 766 | 771 | - | 1339 | 1319 | - |  |
| Critical Hdwy | 4.12 | - | - | 4.12 | - |  | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |  |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |  |
| Follow-up Hdwy | 2.218 | - |  | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |  |
| Pot Cap-1 Maneuver | 884 | - | - | 529 | - | - | 39 | 53 | 195 | 38 | 54 | 437 |  |
| Stage 1 | - | - | - | - | - | - | 194 | 227 |  | 399 | 415 | - |  |
| Stage 2 | - | - | - | - | - | - | 395 | 410 | - | 188 | 227 | - |  |
| Platoon blocked, \% |  | - | - |  | - | - |  |  |  |  |  |  |  |
| Mov Cap-1 Maneuver | 884 | - | - | 529 | - | - | 29 | 47 | 195 | $\sim 24$ | 48 | 437 |  |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 29 | 47 | - | $\sim 24$ | 48 | - |  |
| Stage 1 | - | - | - | - | - | - | 190 | 222 | - | 391 | 380 | - |  |
| Stage 2 | - | - | - | - | - | - | 347 | 375 | - | 146 | 222 | - |  |
| Approach | EB |  |  | WB |  |  | NB |  |  | SB |  |  |  |
| HCM Control Delay, s | 0 |  |  | 0.4 |  |  | 97.5 |  |  | \$ 566.4 |  |  |  |
| HCM LOS |  |  |  |  |  |  | F |  |  | F |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |  |  |  |  |
| Capacity (veh/h) |  | 83 | 884 | - | - | 529 | - | - | 31 |  |  |  |  |
| HCM Lane V/C Ratio |  | 0.589 | 0.006 | - | - | 0.051 | - | - | 1.578 |  |  |  |  |
| HCM Control Delay (s) |  | 97.5 | 9.1 | 0 | - | 12.2 | 0 |  | 566.4 |  |  |  |  |
| HCM Lane LOS |  | F | A | A | - | B | A | - | F |  |  |  |  |
| HCM 95th \%tile Q(veh) |  | 2.7 | 0 | - | - | 0.2 | - | - | 5.5 |  |  |  |  |
| Notes |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\sim$ : Volume exceeds cap | pacity | \$: De | lay ex | ceeds |  | +: Com | mputation | Not D | efined | *: All | major | volume | in platoon |



Analysis Period (min) 15
c Critical Lane Group



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 22.3 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 4 | $\mathbf{r}$ |  | A | l | F |
| Traffic Vol, veh/h | 2355 | 80 | 155 | 1350 | 35 | 205 |
| Future Vol, veh/h | 2355 | 80 | 155 | 1350 | 35 | 205 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 250 | 300 | - | 275 | 0 |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 88 | 56 | 63 | 91 | 63 | 80 |
| Heavy Vehicles, \% | 3 | 0 | 1 | 3 | 0 | 1 |
| Mvmt Flow | 2676 | 143 | 246 | 1484 | 56 | 256 |




| Major/Minor | Major1 | Major2 |  |  |  | Minor1 |  |  | Minor2 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 1608 | 0 | 0 | 2761 | 0 | 0 | 4444 | 4435 | 2707 | 4411 | 4435 | 1554 |
| Stage 1 | - | - | - | - | - | - | 2751 | 2751 | - | 1630 | 1630 | - |
| Stage 2 | - | - | - | - | - | - | 1693 | 1684 | - | 2781 | 2805 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - |  | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - |  | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - |  | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - |  | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 406 | - | - | 143 | - | - | $\sim 1$ | $\sim 1$ | $\sim 27$ | $\sim 1$ | $\sim 1$ | 139 |
| Stage 1 | - | - | - | - | - | - | 27 | 42 | - | 128 | 160 | - |
| Stage 2 | - | - | - | - | - | - | 118 | 150 | - | 26 | 40 | - |

Platoon blocked, \%

| Mov Cap-1 Maneuver | 406 | - | - | 143 | - | - | - | $\sim 1$ | $\sim 27$ | - | $\sim 1$ | 139 |
| :---: | ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | $\sim 1$ | - | - | $\sim 1$ | - |
| Stage 1 | - | - | - | - | - | - | 26 | 40 | - | 121 | 117 | - |
| Stage 2 | - | - | - | - | - | - | 45 | 110 | - | - | 38 | - |


| Approach | EB | WB | NB | SB |
| :--- | :---: | :---: | :---: | :---: |
| HCM Control Delay, $s$ | 0.1 | 0.9 |  |  |

HCM LOS

| Minor Lane/Major Mvmt | NBLn1 NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR SBLn1 SBLn2 |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | -27 | 406 | - | -143 | - | - | -139 |  |
| HCM Lane V/C Ratio | -7.045 | 0.054 | - | -0.266 | - | - | -0.43 |  |
| HCM Control Delay (s) | $-\$ 3006$ | 14.4 | - | - | 39.1 | - | - | - |
| HCM Lane LOS | - | F | B | - | - | E | - | - |
| HCM 95th \%tile Q(veh) | -23.4 | 0.2 | - | - | 1 | - | - | - |

## Notes

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

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | F＊ | 个4 | F | 7＊ | 性 | F | \％ | 性 | F | \％ | 个 $\uparrow$ | F |
| Trafic Volume（veh／h） | 1265 | 1015 | 400 | 370 | 500 | 260 | 415 | 1100 | 380 | 185 | 750 | 600 |
| Future Volume（veh／h） | 1265 | 1015 | 400 | 370 | 500 | 260 | 415 | 1100 | 380 | 185 | 750 | 600 |
| Initial $Q(Q b)$ ，veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus，Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow，veh／h／ln | 1595 | 1657 | 1643 | 1569 | 1643 | 1643 | 1657 | 1630 | 1670 | 1670 | 1697 | 1683 |
| Adj Flow Rate，veh／h | 1375 | 1103 | 0 | 402 | 543 | 0 | 451 | 1196 | 0 | 201 | 815 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh，\％ | 2 | 4 | 5 | 4 | 5 | 5 | 4 | 6 | 3 | 3 | 1 | 2 |
| Cap，veh／h | 987 | 1110 |  | 424 | 511 |  | 302 | 933 |  | 145 | 649 |  |
| Arrive On Green | 0.33 | 0.35 | 0.00 | 0.15 | 0.16 | 0.00 | 0.16 | 0.30 | 0.00 | 0.06 | 0.20 | 0.00 |
| Sat Flow，veh／h | 2946 | 3148 | 1393 | 2900 | 3122 | 1393 | 1578 | 3097 | 1415 | 1590 | 3224 | 1427 |
| Grp Volume（v），veh／h | 1375 | 1103 | 0 | 402 | 543 | 0 | 451 | 1196 | 0 | 201 | 815 | 0 |
| Grp Sat Flow（s），veh／h／ln | 1473 | 1574 | 1393 | 1450 | 1561 | 1393 | 1578 | 1548 | 1415 | 1590 | 1612 | 1427 |
| Q Serve（g＿s），s | 53.6 | 55.9 | 0.0 | 22.0 | 26.2 | 0.0 | 26.1 | 48.2 | 0.0 | 10.1 | 32.2 | 0.0 |
| Cycle Q Clear（g＿c），s | 53.6 | 55.9 | 0.0 | 22.0 | 26.2 | 0.0 | 26.1 | 48.2 | 0.0 | 10.1 | 32.2 | 0.0 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Lane Grp Cap（c），veh／h | 987 | 1110 |  | 424 | 511 |  | 302 | 933 |  | 145 | 649 |  |
| V／C Ratio（X） | 1.39 | 0.99 |  | 0.95 | 1.06 |  | 1.49 | 1.28 |  | 1.38 | 1.26 |  |
| Avail Cap（c＿a），veh／h | 987 | 1110 |  | 424 | 511 |  | 302 | 933 |  | 145 | 649 |  |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter（l） | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay（d），s／veh | 53.2 | 51.6 | 0.0 | 67.7 | 66.9 | 0.0 | 50.2 | 55.9 | 0.0 | 54.3 | 63.9 | 0.0 |
| Incr Delay（d2），s／veh | 183.1 | 25.6 | 0.0 | 30.4 | 57.3 | 0.0 | 238.0 | 135.1 | 0.0 | 208.9 | 127.6 | 0.0 |
| Initial Q Delay（d3），s／veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \％ile BackOfQ（50\％），veh／ln | 44.1 | 25.0 | 0.0 | 9.7 | 14.2 | 0.0 | 29.0 | 35.9 | 0.0 | 9.9 | 24.5 | 0.0 |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh | 236.3 | 77.3 | 0.0 | 98.1 | 124.2 | 0.0 | 288.2 | 191.0 | 0.0 | 263.2 | 191.5 | 0.0 |
| LnGrp LOS | F | E |  | F | F |  | F | F |  | F | F |  |
| Approach Vol，veh／h |  | 2478 | A |  | 945 | A |  | 1647 | A |  | 1016 | A |
| Approach Delay，s／veh |  | 165.5 |  |  | 113.1 |  |  | 217.6 |  |  | 205.7 |  |
| Approach LOS |  | F |  |  | F |  |  | F |  |  | F |  |


| Timer－Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Phs Duration $(G+Y+R c), s$ | 16.0 | 54.0 | 30.3 | 63.2 | 32.0 | 38.0 | 60.5 | 33.0 |
| Change Period $(\mathrm{Y}+\mathrm{Rc})$ ， s | 5.9 | ${ }^{*} 5.8$ | ${ }^{*} 6.8$ | ${ }^{*} 6.8$ | 5.9 | ${ }^{*} 5.8$ | ${ }^{*} 6.8$ | ${ }^{*} 6.8$ |
| Max Green Setting（Gmax），s | 10.1 | ${ }^{*} 48$ | ${ }^{*} 20$ | ${ }^{*} 56$ | 26.1 | ${ }^{*} 32$ | ${ }^{*} 50$ | ${ }^{*} 26$ |
| Max Q Clear Time（g＿c＋11），s | 12.1 | 50.2 | 24.0 | 57.9 | 28.1 | 34.2 | 55.6 | 28.2 |
| Green Ext Time（p＿c），s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

## Intersection Summary

| HCM 6th Ctrl Delay | 178.2 |
| :--- | ---: |
| HCM 6th LOS | F |

## Notes

＊HCM 6th computational engine requires equal clearance times for the phases crossing the barrier．
Unsignalized Delay for［NBR，EBR，WBR，SBR］is excluded from calculations of the approach delay and intersection delay．


| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh 435 | 435.6 |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | \% | 4 | 7 | * | 4 | F' |  | ${ }_{4} 1$ | 7 |  | $\uparrow$ | 7 |
| Traffic Vol, veh/h | 25 | 1565 | 55 | 90 | 1145 | 60 | 5 | 5 | 45 | 40 | 5 | 20 |
| Future Vol, veh/h | 25 | 1565 | 55 | 90 | 1145 | 60 | 5 | 5 | 45 | 40 | 5 | 20 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 325 | - | 275 | 675 | - | 400 | 150 | - | 0 | - | - | 50 |
| Veh in Median Storage, \# | \# | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, \% | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 0 | 3 | 17 | 9 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 27 | 1701 | 60 | 98 | 1245 | 65 | 5 | 5 | 49 | 43 | 5 | 22 |


| Major/Minor | Major1 |  |  | Major2 |  |  | Minor1 | Minor2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 1310 | 0 | 0 | 1761 | 0 |  | 03242 | 3261 | 1701 | 3253 | 3256 | 1245 |  |
| Stage 1 | - | - | - | - | - |  | 1755 | 1755 |  | 1441 | 1441 | - |  |
| Stage 2 | - | - | - |  | - |  | 1487 | 1506 | - | 1812 | 1815 | - |  |
| Critical Hdwy | 4.1 | - | - | 4.19 | - |  | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |  |
| Critical Hdwy Stg 1 | - | - | - | - | - |  | 6.1 | 5.5 | - | 6.1 | 5.5 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | - |  | 6.1 | 5.5 | - | 6.1 | 5.5 | - |  |
| Follow-up Hdwy | 2.2 | - | - | 2.281 | - |  | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |  |
| Pot Cap-1 Maneuver | 535 | - | - | 337 | - |  | 6 | 9 | 115 | ~6 | 9 | 214 |  |
| Stage 1 | - | - | - | - | - |  | 110 | 140 | - | 166 | 200 | - |  |
| Stage 2 | - | - | - | - | - |  | 157 | 186 | - | 102 | 131 | - |  |
| Platoon blocked, \% |  | - | - |  | - |  | - |  |  |  |  |  |  |
| Mov Cap-1 Maneuver | 535 | - | - | 337 | - |  | $\sim 1$ | 6 | 115 | $\sim 1$ | 6 | 214 |  |
| Mov Cap-2 Maneuver | r | - | - | - | - |  | $\sim 1$ | 6 | - | ~1 | 6 | - |  |
| Stage 1 | - | - | - | - | - |  | 105 | 133 | - | 158 | 142 | - |  |
| Stage 2 | - | - | - | - | - |  | 96 | 132 | - | 53 | 124 | - |  |
| Approach | EB |  |  | WB |  |  | NB |  |  | SB |  |  |  |
| HCM Control Delay, s | s 0.2 |  |  | 1.4 |  |  | \$979.2 |  |  | 9645.3 |  |  |  |
| HCM LOS |  |  |  |  |  |  | F |  |  | F |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Minor Lane/Major Mvm |  | NBLn1 NBLn2 |  | EBL | EBT | EBR | R WBL | WBT | WBR SBLn1 SBLn2 |  |  |  |  |
| Capacity (veh/h) |  | 2 | 115 | 535 | - |  | - 337 | - | - | 1 | 214 |  |  |
| HCM Lane V/C Ratio |  | 5.435 | 0.425 | 0.051 | - |  | - 0.29 | - |  | 48.913 | 0.102 |  |  |
| HCM Control Delay (s) |  | 5126.1 | 57.7 | 12.1 | - |  | 20 | - |  | 28366 | 23.7 |  |  |
| HCM Lane LOS |  | F | F | B | - |  | - C | - | - | F | C |  |  |
| HCM 95th \%tile Q(veh) |  | 2.6 | 1.8 | 0.2 | - |  | 1.2 | - | - | 8.2 | 0.3 |  |  |
| Notes |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\sim$ Volume exceeds cap | apacity | \$: De | day exc | ceeds 3 |  | +: Com | mputation | Not D | fined | *: All | major v | volume in | in platoon |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | \% | $\uparrow$ | 7 | \% | $\hat{\beta}$ |  | * | $\uparrow$ | F | * | $\uparrow$ | 7 |
| Traffic Volume (vph) | 205 | 950 | 480 | 560 | 850 | 35 | 440 | 260 | 795 | 30 | 120 | 80 |
| Future Volume (vph) | 205 | 950 | 480 | 560 | 850 | 35 | 440 | 260 | 795 | 30 | 120 | 80 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1800 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.5 | 7.0 | 7.0 | 4.5 | 7.0 |  | 5.0 | 5.0 | 4.0 | 5.0 | 5.0 | 4.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 0.99 |  | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |  | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 |
| Satd. Flow (prot) | 1770 | 1845 | 1583 | 1660 | 1758 |  | 1504 | 1863 | 1583 | 1671 | 1863 | 1615 |
| Flt Permitted | 0.12 | 1.00 | 1.00 | 0.11 | 1.00 |  | 0.67 | 1.00 | 1.00 | 0.39 | 1.00 | 1.00 |
| Satd. Flow (perm) | 233 | 1845 | 1583 | 192 | 1758 |  | 1067 | 1863 | 1583 | 685 | 1863 | 1615 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 223 | 1033 | 522 | 609 | 924 | 38 | 478 | 283 | 864 | 33 | 130 | 87 |
| RTOR Reduction (vph) | 0 | 0 | 232 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 223 | 1033 | 290 | 609 | 960 | 0 | 478 | 283 | 864 | 33 | 130 | 87 |
| Heavy Vehicles (\%) | 2\% | 3\% | 2\% | 3\% | 6\% | 43\% | 20\% | 2\% | 2\% | 8\% | 2\% | 0\% |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA |  | Perm | NA | Free | Perm | NA | Free |
| Protected Phases | 5 | 2 |  | 1 | 6 |  |  | 8 |  |  | 4 |  |
| Permitted Phases | 2 |  | 2 | 6 |  |  | 8 |  | Free | 4 |  | Free |
| Actuated Green, G (s) | 39.0 | 32.0 | 32.0 | 49.0 | 37.5 |  | 19.0 | 19.0 | 80.0 | 19.0 | 19.0 | 80.0 |
| Effective Green, g (s) | 39.0 | 32.0 | 32.0 | 49.0 | 37.5 |  | 19.0 | 19.0 | 80.0 | 19.0 | 19.0 | 80.0 |
| Actuated g/C Ratio | 0.49 | 0.40 | 0.40 | 0.61 | 0.47 |  | 0.24 | 0.24 | 1.00 | 0.24 | 0.24 | 1.00 |
| Clearance Time (s) | 4.5 | 7.0 | 7.0 | 4.5 | 7.0 |  | 5.0 | 5.0 |  | 5.0 | 5.0 |  |
| Vehicle Extension (s) | 2.5 | 5.0 | 5.0 | 2.5 | 5.0 |  | 3.0 | 3.0 |  | 3.0 | 3.0 |  |
| Lane Grp Cap (vph) | 248 | 738 | 633 | 346 | 824 |  | 253 | 442 | 1583 | 162 | 442 | 1615 |
| v/s Ratio Prot | 0.08 | 0.56 |  | c0.27 | 0.55 |  |  | 0.15 |  |  | 0.07 |  |
| v/s Ratio Perm | 0.36 |  | 0.18 | c0.80 |  |  | c0.45 |  | 0.55 | 0.05 |  | 0.05 |
| v/c Ratio | 0.90 | 1.40 | 0.46 | 1.76 | 1.17 |  | 1.89 | 0.64 | 0.55 | 0.20 | 0.29 | 0.05 |
| Uniform Delay, d1 | 17.6 | 24.0 | 17.6 | 23.8 | 21.2 |  | 30.5 | 27.4 | 0.0 | 24.4 | 25.0 | 0.0 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 31.4 | 188.0 | 1.1 | 353.7 | 87.6 |  | 414.8 | 3.2 | 1.4 | 0.6 | 0.4 | 0.1 |
| Delay (s) | 49.0 | 212.0 | 18.7 | 377.5 | 108.8 |  | 445.3 | 30.6 | 1.4 | 25.1 | 25.4 | 0.1 |
| Level of Service | D | F | B | F | F |  | F | C | A | C | C | A |
| Approach Delay (s) |  | 134.8 |  |  | 213.0 |  |  | 137.0 |  |  | 16.5 |  |
| Approach LOS |  | F |  |  | F |  |  | F |  |  | B |  |


| Intersection Summary |  |  |  |
| :--- | ---: | :--- | ---: |
| HCM 2000 Control Delay | 153.4 | HCM 2000 Level of Service | F |
| HCM 2000 Volume to Capacity ratio | 1.87 | Sum of lost time (s) | 16.5 |
| Actuated Cycle Length (s) | 80.0 | H |  |
| Intersection Capacity Utilization | $127.5 \%$ | ICU Level of Service |  |

Analysis Period (min)
c Critical Lane Group




| Major/Minor | Major1 |  | Major2 |  |  | Minor1 |  |  | Minor2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 1527 | 0 | 0 | 1723 |  | 0 | 3670 | 3651 | 1712 | 3619 | 3616 | 1481 |  |
| Stage 1 | - | - | - | - |  | - - | 2114 | 2114 |  | 1491 | 1491 | - |  |
| Stage 2 | - | - | - | - |  | - - | 1556 | 1537 |  | 2128 | 2125 |  |  |
| Critical Hdwy | 4.1 | - |  | 4.1 |  | - - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |  |
| Critical Hdwy Stg 1 | - | - | - | - |  | - - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - |  | - - | 6.1 | 5.5 | - | 6.1 | 5.5 | - |  |
| Follow-up Hdwy | 2.2 | - | - | 2.2 |  | - - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |  |
| Pot Cap-1 Maneuver | 442 | - | - | 372 |  | - - | ~3 | ~5 | 113 | ~3 | $\sim 5$ | 156 |  |
| Stage 1 | - | - | - | - |  | - - | 67 | 92 |  | $\sim 156$ | 189 | - |  |
| Stage 2 | - | - | - | - |  | - - | 143 | 179 | - | ~66 | 91 | - |  |
| Platoon blocked, \% |  | - | - |  |  | - - |  |  |  |  |  |  |  |
| Mov Cap-1 Maneuver | 442 | - | - | 372 |  | - - | - | 0 | 113 | - | 0 | 156 |  |
| Mov Cap-2 Maneuver | - | - | - | - |  | - - | - | 0 | - | - | 0 | - |  |
| Stage 1 | - | - | - | - |  | - - | 67 | 0 |  | ~156 | 171 | - |  |
| Stage 2 | - | - | - | - |  | - - | 25 | 162 | - | - | 0 | - |  |
| Approach | EB |  |  | WB |  |  | NB |  |  | SB |  |  |  |
| HCM Control Delay, s | 2.1 |  |  | 0.1 |  |  |  |  |  |  |  |  |  |
| HCM LOS |  |  |  |  |  |  | - |  |  | - |  |  |  |
| Minor Lane/Major Mvmt |  |  | EBL | EBT | EBR | 2 WBL | WBT | WBR | SBLn1 |  |  |  |  |
| Capacity (veh/h) |  | - | 442 | - |  | 372 | - | - |  |  |  |  |  |
| HCM Lane V/C Ratio |  | - | 0.455 | - |  | - 0.015 | - | - | - |  |  |  |  |
| HCM Control Delay (s) |  | - | 19.8 | 0 |  | 14.8 | 0 | - | - |  |  |  |  |
| HCM Lane LOS |  | - | C | A |  | B | A | - | - |  |  |  |  |
| HCM 95th \%tile Q(veh) |  | - | 2.3 | - |  | - 0 | - | - | - |  |  |  |  |
| Notes |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\sim$ Volume exceeds cap | pacity |  | lay exc | eeds 3 | Os | +: Comp | mutation | Not De | fined | *: All | major | volume in | in platoon |



| Major/Minor $\quad$ M | Major1 |  | Major2 |  |  | Minor1 |  |  | Minor2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 1570 | 0 | 0 | 1690 | 0 | 0 | 3687 | 3665 | 1639 | 3674 | 3627 | 1481 |  |
| Stage 1 | - | - | - | - | - | - | 2009 | 2009 | - | 1567 | 1567 | - |  |
| Stage 2 | - | - | - | - | - | - | 1678 | 1656 | - | 2107 | 2060 |  |  |
| Critical Hdwy | 4.16 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.8 | 7.27 | 6.5 | 6.23 |  |
| Critical Hdwy Stg 1 |  | - | - | - | - | - | 6.1 | 5.5 | - | 6.27 | 5.5 |  |  |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.27 | 5.5 | - |  |
| Follow-up Hdwy | 2.254 | - | - | 2.2 | - | - | 3.5 | 4 | 3.84 | 3.653 | 4 | 3.327 |  |
| Pot Cap-1 Maneuver | 409 | - | - | 383 | - | - | ~3 | $\sim 5$ | 90 | $\sim 2$ | $\sim 5$ | 153 |  |
| Stage 1 | - | - | - | - | - | - | 78 | $\sim 105$ |  | 128 | 173 | - |  |
| Stage 2 | - | - | - | - | - | - | 121 | $\sim 157$ | - | ~61 | ~ 99 | - |  |
| Platoon blocked, \% |  | - | - |  | - | - |  |  |  |  |  |  |  |
| Mov Cap-1 Maneuver | 409 | - | - | 383 | - | - | - | $\sim 2$ | 90 | - | $\sim 2$ | 153 |  |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | $\sim 2$ | - | - | $\sim 2$ | - |  |
| Stage 1 | - | - | - | - | - | - | $\sim 43$ | $\sim 58$ | - | $\sim 70$ | 154 | - |  |
| Stage 2 | - | - | - | - | - | - | $\sim 5$ | $\sim 139$ | - | - | $\sim 54$ | - |  |
| Approach | EB |  |  | WB |  |  | NB |  |  | SB |  |  |  |
| HCM Control Delay, s | 2.1 |  |  | 0.4 |  |  |  |  |  |  |  |  |  |
| HCM LOS |  |  |  |  |  |  | - |  |  | - |  |  |  |
| Minor Lane/Major Mvmt |  |  | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |  |  |  |  |
| Capacity (veh/h) |  | - | 409 | - | - | 383 | - | - | - |  |  |  |  |
| HCM Lane V/C Ratio |  | - | 0.452 | - |  | 0.114 | - | - | - |  |  |  |  |
| HCM Control Delay (s) |  | - | 20.9 | - | - | 15.6 | - | - | - |  |  |  |  |
| HCM Lane LOS |  | - | C | - | - | C | - | - | - |  |  |  |  |
| HCM 95th \%tile Q(veh) |  | - | 2.3 | - | - | 0.4 | - | - | - |  |  |  |  |
| Notes |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\sim$ : Volume exceeds cap | apaity | De | ay exc | eeds 3 |  | +: Comp | mutation | Not D | fined | *: All | major v | volume in | in platoon |


| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | \% | $\uparrow$ | F | \% | $\hat{\beta}$ |  |  | ${ }_{\$}$ |  |  | $\uparrow$ | F |
| Traffic Volume (vph) | 180 | 1135 | 245 | 400 | 1310 | 165 | 80 | 470 | 325 | 200 | 300 | 95 |
| Future Volume (vph) | 180 | 1135 | 245 | 400 | 1310 | 165 | 80 | 470 | 325 | 200 | 300 | 95 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 7.0 | 7.0 | 5.0 | 7.0 |  |  | 5.0 |  |  | 5.0 | 5.0 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  | 1.00 |  |  | 1.00 | 1.00 |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 0.98 |  |  | 0.95 |  |  | 1.00 | 0.85 |
| Flt Protected | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |  |  | 1.00 |  |  | 0.98 | 1.00 |
| Satd. Flow (prot) | 1719 | 1845 | 1615 | 1805 | 1753 |  |  | 1727 |  |  | 1863 | 1599 |
| Flt Permitted | 0.07 | 1.00 | 1.00 | 0.06 | 1.00 |  |  | 0.48 |  |  | 0.32 | 1.00 |
| Satd. Flow (perm) | 127 | 1845 | 1615 | 123 | 1753 |  |  | 830 |  |  | 603 | 1599 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 196 | 1234 | 266 | 435 | 1424 | 179 | 87 | 511 | 353 | 217 | 326 | 103 |
| RTOR Reduction (vph) | 0 | 0 | 57 | 0 | 3 | 0 | 0 | 14 | 0 | 0 | 0 | 60 |
| Lane Group Flow (vph) | 196 | 1234 | 209 | 435 | 1600 | 0 | 0 | 937 | 0 | 0 | 543 | 43 |
| Heavy Vehicles (\%) | 5\% | 3\% | 0\% | 0\% | 6\% | 11\% | 6\% | 3\% | 5\% | 0\% | 0\% | 1\% |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA |  | Perm | NA |  | Perm | NA | Perm |
| Protected Phases | 5 | 2 |  | 1 | 6 |  |  | 8 |  |  | 4 |  |
| Permitted Phases | 2 |  | 2 | 6 |  |  | 8 |  |  | 4 |  | 4 |
| Actuated Green, G (s) | 65.0 | 57.0 | 57.0 | 76.0 | 63.0 |  |  | 62.0 |  |  | 62.0 | 62.0 |
| Effective Green, g (s) | 65.0 | 57.0 | 57.0 | 76.0 | 63.0 |  |  | 62.0 |  |  | 62.0 | 62.0 |
| Actuated g/C Ratio | 0.43 | 0.38 | 0.38 | 0.51 | 0.42 |  |  | 0.41 |  |  | 0.41 | 0.41 |
| Clearance Time (s) | 5.0 | 7.0 | 7.0 | 5.0 | 7.0 |  |  | 5.0 |  |  | 5.0 | 5.0 |
| Vehicle Extension (s) | 3.0 | 5.0 | 5.0 | 3.0 | 5.0 |  |  | 3.0 |  |  | 3.0 | 3.0 |
| Lane Grp Cap (vph) | 139 | 701 | 613 | 219 | 736 |  |  | 343 |  |  | 249 | 660 |
| v/s Ratio Prot | 0.07 | 0.67 |  | c0.19 | c0.91 |  |  |  |  |  |  |  |
| $\mathrm{v} / \mathrm{s}$ Ratio Perm | 0.53 |  | 0.13 | 0.82 |  |  |  | c1.13 |  |  | 0.90 | 0.03 |
| v/c Ratio | 1.41 | 1.76 | 0.34 | 1.99 | 2.17 |  |  | 2.73 |  |  | 2.18 | 0.07 |
| Uniform Delay, d1 | 39.4 | 46.5 | 33.1 | 48.8 | 43.5 |  |  | 44.0 |  |  | 44.0 | 26.5 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  | 1.00 |  |  | 1.00 | 1.00 |
| Incremental Delay, d2 | 221.6 | 348.0 | 0.7 | 459.8 | 532.8 |  |  | 787.4 |  |  | 544.4 | 0.0 |
| Delay (s) | 261.0 | 394.5 | 33.8 | 508.6 | 576.3 |  |  | 831.4 |  |  | 588.4 | 26.6 |
| Level of Service | F | F | C | F | F |  |  | F |  |  | F | C |
| Approach Delay (s) |  | 322.5 |  |  | 561.9 |  |  | 831.4 |  |  | 498.8 |  |
| Approach LOS |  | F |  |  | F |  |  | F |  |  | F |  |


| Intersection Summary |  |  |  |
| :--- | ---: | :--- | ---: |
| HCM 2000 Control Delay | 526.1 | HCM 2000 Level of Service | F |
| HCM 2000 Volume to Capacity ratio | 2.46 | Sum of lost time (s) | 17.0 |
| Actuated Cycle Length (s) | 150.0 | H |  |
| Intersection Capacity Utilization | $183.1 \%$ | ICU Level of Service |  |

Analysis Period (min)
c Critical Lane Group



| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh 1621.2 |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | / | 44 | 「 | ${ }^{1}$ | 1\% |  | \% | $\uparrow$ |  |  | $\leqslant$ |  |
| Traffic Vol, veh/h | 225 | 1465 | 110 | 20 | 1430 | 20 | 125 | 0 | 60 | 75 | 5 | 375 |
| Future Vol, veh/h | 225 | 1465 | 110 | 20 | 1430 | 20 | 125 | 0 | 60 | 75 | 5 | 375 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 275 | - | 0 | 225 | - | - | 0 | - | - | - | - | - |
| Veh in Median Storage, \# |  | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, \% | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 2 | 10 | 7 | 3 | 8 | 2 | 7 | 2 | 3 | 2 | 2 | 2 |
| Mvmt Flow | 245 | 1592 | 120 | 22 | 1554 | 22 | 136 | 0 | 65 | 82 | 5 | 408 |


| Major/Minor $\quad$ N | Major1 |  | Major2 |  |  | Minor1 |  |  | Minor2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 1576 | 0 | 0 | 1712 | 0 | 0 | 2906 | 3702 | 796 | 2895 | 3811 | 788 |  |
| Stage 1 | - | - |  | - | - | - | 2082 | 2082 | - | 1609 | 1609 |  |  |
| Stage 2 | - | - | - | - | - | - | 824 | 1620 |  | 1286 | 2202 | - |  |
| Critical Hdwy | 4.14 | - | - | 4.16 | - | - | 7.64 | 6.54 | 6.96 | 7.54 | 6.54 | 6.94 |  |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.64 | 5.54 | - | 6.54 | 5.54 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.64 | 5.54 | - | 6.54 | 5.54 | - |  |
| Follow-up Hdwy | 2.22 | - | - | 2.23 | - | - | 3.57 | 4.02 | 3.33 | 3.52 | 4.02 | 3.32 |  |
| Pot Cap-1 Maneuver | 414 | - | - | 362 | - | - | $\sim 6$ | 5 | 328 | ~7 | ~ 4 | ~334 |  |
| Stage 1 | - | - | - | - | - | - | $\sim 51$ | 94 | - | 109 | 162 | - |  |
| Stage 2 | - | - | - | - | - | - | 323 | 160 | - | 174 | 81 | - |  |
| Platoon blocked, \% |  | - | - |  | - | - |  |  |  |  |  |  |  |
| Mov Cap-1 Maneuver | 414 | - | - | 362 | - | - | - | 2 | 328 | $\sim 3$ |  | ~334 |  |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | 2 | - | $\sim 3$ | $\sim 2$ | - |  |
| Stage 1 | - | - | - | - | - | - | ~21 | 38 | - | $\sim 44$ | 152 | - |  |
| Stage 2 | - | - | - | - | - | - | - | 150 | - | $\sim 57$ | 33 | - |  |
| Approach | EB |  |  | WB |  |  | NB |  |  | SB |  |  |  |
| HCM Control Delay, s | 3.2 |  |  | 0.2 |  |  |  |  |  | 13918 |  |  |  |
| HCM LOS |  |  |  |  |  |  | - |  |  | F |  |  |  |
| Minor Lane/Major Mvmt |  | n1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |  |  |  |
| Capacity (veh/h) |  | - | 328 | 414 | - | - | 362 |  | - | 16 |  |  |  |
| HCM Lane V/C Ratio |  | - | 0.199 | 0.591 | - | - | 0.06 | - |  | 30.91 |  |  |  |
| HCM Control Delay (s) |  | - | 18.7 | 25.5 | - | - | 15.6 | - |  | 3918.3 |  |  |  |
| HCM Lane LOS |  | - | C | D | - | - | C | - | - | F |  |  |  |
| HCM 95th \%tile Q(veh) |  | - | 0.7 | 3.7 | - | - | 0.2 | - | - | 62.8 |  |  |  |
| Notes |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\sim$ : Volume exceeds cap | pacity | S: | lay ex | ceeds 30 | Os | +: Comp | putation | Not D | fined | *: All | major v | volume in | in platoon |


| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | \% | $\uparrow$ | F | \% | $\hat{\beta}$ |  | \% | $\hat{\beta}$ |  |  | \$ |  |
| Traffic Volume (veh/h) | 290 | 910 | 400 | 130 | 580 | 45 | 455 | 290 | 475 | 100 | 355 | 435 |
| Future Volume (veh/h) | 290 | 910 | 400 | 130 | 580 | 45 | 455 | 290 | 475 | 100 | 355 | 435 |
| Initial $Q(Q b)$, veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow, veh/h/ln | 1633 | 1781 | 1870 | 1781 | 1796 | 1796 | 1633 | 1826 | 1826 | 1841 | 1841 | 1841 |
| Adj Flow Rate, veh/h | 315 | 989 | 435 | 141 | 630 | 49 | 495 | 315 | 516 | 109 | 386 | 473 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% | 18 | 8 | 2 | 8 | 7 | 7 | 18 | 5 | 5 | 4 | 4 | 4 |
| Cap, veh/h | 185 | 484 | 430 | 148 | 400 | 31 | 289 | 347 | 568 | 45 | 90 | 102 |
| Arrive On Green | 0.09 | 0.27 | 0.27 | 0.06 | 0.24 | 0.24 | 0.09 | 0.56 | 0.56 | 0.43 | 0.43 | 0.43 |
| Sat Flow, veh/h | 1555 | 1781 | 1585 | 1697 | 1645 | 128 | 1555 | 623 | 1020 | 39 | 211 | 238 |
| Grp Volume(v), veh/h | 315 | 989 | 435 | 141 | 0 | 679 | 495 | 0 | 831 | 968 | 0 | 0 |
| Grp Sat Flow(s),veh/h/n | 1555 | 1781 | 1585 | 1697 | 0 | 1773 | 1555 | 0 | 1642 | 488 | 0 | 0 |
| Q Serve(g_s), s | 12.0 | 38.0 | 38.0 | 8.0 | 0.0 | 34.0 | 13.0 | 0.0 | 63.5 | 14.5 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 12.0 | 38.0 | 38.0 | 8.0 | 0.0 | 34.0 | 13.0 | 0.0 | 63.5 | 60.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 0.07 | 1.00 |  | 0.62 | 0.11 |  | 0.49 |
| Lane Grp Cap(c), veh/h | 185 | 484 | 430 | 148 | 0 | 431 | 289 | 0 | 915 | 238 | 0 | 0 |
| V/C Ratio(X) | 1.70 | 2.05 | 1.01 | 0.95 | 0.00 | 1.58 | 1.71 | 0.00 | 0.91 | 4.07 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 185 | 484 | 430 | 148 | 0 | 431 | 289 | 0 | 915 | 238 | 0 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 40.4 | 51.0 | 51.0 | 43.9 | 0.0 | 53.0 | 25.8 | 0.0 | 27.8 | 50.6 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 339.3 | 477.6 | 46.2 | 59.2 | 0.0 | 270.5 | 334.4 | 0.0 | 13.3 | 1393.3 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \%ile BackOfQ(50\%),veh/ln | 22.0 | 80.3 | 19.9 | 6.0 | 0.0 | 46.8 | 31.8 | 0.0 | 25.6 | 100.2 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay(d),s/veh | 379.7 | 528.6 | 97.2 | 103.1 | 0.0 | 323.5 | 360.2 | 0.0 | 41.1 | 1443.9 | 0.0 | 0.0 |
| LnGrp LOS | F | F | F | F | A | F | F | A | D | F | A | A |
| Approach Vol, veh/h |  | 1739 |  |  | 820 |  |  | 1326 |  |  | 968 |  |
| Approach Delay, s/veh |  | 393.7 |  |  | 285.6 |  |  | 160.2 |  |  | 1443.9 |  |
| Approach LOS |  | F |  |  | F |  |  | F |  |  | F |  |


| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 8 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Phs Duration (G+Y+Rc), s | 13.0 | 44.0 | 18.0 | 65.0 | 17.0 | 40.0 | 83.0 |
| Change Period (Y+Rc), s | 5.0 | 6.0 | 5.0 | 5.0 | 5.0 | 6.0 | 5.0 |
| Max Green Setting (Gmax), s | 8.0 | 38.0 | 13.0 | 60.0 | 12.0 | 34.0 | 78.0 |
| Max Q Clear Time (g_c+11), s | 10.0 | 40.0 | 15.0 | 62.0 | 14.0 | 36.0 | 65.5 |
| Green Ext Time (p_c), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.3 |

## Intersection Summary

| HCM 6th Ctrl Delay | 521.1 |
| :--- | ---: |
| HCM 6th LOS | F |



| Major/Minor $\quad$ N | Major1 |  | Major2 |  |  | Minor1 |  |  | Minor2 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 718 | 0 | 0 | 1495 | 0 | 0 | 2668 | 2665 | 1403 | 2724 | 2716 | 677 |  |
| Stage 1 | - | - | - | - | - | - | 1643 | 1643 | - | 981 | 981 | - |  |
| Stage 2 | - | - | - | - | - | - | 1025 | 1022 | - | 1743 | 1735 | - |  |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 |  |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 |  | 6.1 | 5.5 | - |  |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.1 | 5.5 |  | 6.1 | 5.5 | - |  |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |  |
| Pot Cap-1 Maneuver | 892 | - | - | 455 | - | - | ~15 | 23 | $\sim 173$ | $\sim 14$ | 21 | 456 |  |
| Stage 1 | - | - | - | - | - | - | 127 | 159 | - | 303 | 330 | - |  |
| Stage 2 | - | - | - | - | - | - | 286 | 316 | - | 111 | 143 | - |  |
| Platoon blocked, \% |  | - | - |  | - | - |  |  |  |  |  |  |  |
| Mov Cap-1 Maneuver | 892 | - | - | 455 | - | - | - | $\sim 1$ | $\sim 173$ | - | $\sim 1$ | 456 |  |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | $\sim 1$ | - | - | $\sim 1$ | - |  |
| Stage 1 | - | - | - | - | - | - | ~12 | $\sim 16$ | - | ~30 | 144 | - |  |
| Stage 2 | - | - | - | - | - | - | ~93 | 138 | - | 0 | $\sim 14$ | - |  |
| Approach | EB |  |  | WB |  |  | NB |  |  | SB |  |  |  |
| HCM Control Delay, s | 0.7 |  |  | 2.9 |  |  |  |  |  |  |  |  |  |
| HCM LOS |  |  |  |  |  |  | - |  |  | - |  |  |  |
| Minor Lane/Major Mvmt |  |  | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |  |  |  |  |
| Capacity (veh/h) |  | - | 892 | - | - | 455 | - | - | - |  |  |  |  |
| HCM Lane V/C Ratio |  | - | 0.134 | - | - | 0.334 | - | - | - |  |  |  |  |
| HCM Control Delay (s) |  | - | 9.7 | 0 | - | 16.8 | 0 | - | - |  |  |  |  |
| HCM Lane LOS |  | - | A | A | - | C | A | - | - |  |  |  |  |
| HCM 95th \%tile Q(veh) |  | - | 0.5 | - | - | 1.5 | - | - | - |  |  |  |  |
| Notes |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\sim$ : Volume exceeds cap | pacity | De | ay exc | ceds 30 |  | +: Com | putation | Not D | fined | *: All | major | lume in | in platoon |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 3.9 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | 1 | $\mathbf{4}$ | $\mathbf{4}$ | $\mathbf{F}$ | $\mathbf{r}$ |  |
| Traffic Vol, veh/h | 190 | 900 | 745 | 15 | 15 | 55 |
| Future Vol, veh/h | 190 | 900 | 745 | 15 | 15 | 55 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 525 | - | - | 550 | 0 | - |
| Veh in Median Storage, $\#$ | - | 0 | 0 | - | 0 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 0 | 10 | 11 | 46 | 13 | 0 |
| Mvmt Flow | 207 | 978 | 810 | 16 | 16 | 60 |



| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int |  |  |  |  |  |  |
| Int Delay, s/veh | 3.6 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | $\uparrow$ |  |  | $\uparrow$ | M |  |
| Traffic Vol, veh/h | 825 | 90 | 5 | 700 | 60 | 5 |
| Future Vol, veh/h | 825 | 90 | 5 | 700 | 60 | 5 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - None | - | None |  |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, $\%$ | 10 | 0 | 0 | 14 | 0 | 0 |
| Mvmt Flow | 897 | 98 | 5 | 761 | 65 | 5 |




| Major/Minor N | Major1 |  | Major2 |  |  |  |  | Minor1 | Minor2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 695 | 0 | 0 | 881 | 0 |  | 0 | 1722 | 1702 | 821 | 1804 | 1757 | 690 |  |
| Stage 1 |  | - - | - | - | - |  | - | 865 | 865 | - | 832 | 832 | - |  |
| Stage 2 |  | - - | - | - | - |  | - | 857 | 837 |  | 972 | 925 | - |  |
| Critical Hdwy | 4.1 | 1 | - | 4.14 | - |  | - | 7.37 | 6.56 | 6.23 | 7.1 | 6.73 | 6.2 |  |
| Critical Hdwy Stg 1 |  | - - | - |  | - |  | - | 6.37 | 5.56 |  | 6.1 | 5.73 | - |  |
| Critical Hdwy Stg 2 |  | - | - | - | - |  | - | 6.37 | 5.56 |  | 6.1 | 5.73 | - |  |
| Follow-up Hdwy | 2.2 | 2 | - | 2.236 | - |  | - | 3.743 | 4.054 | 3.327 | 3.5 | 4.207 | 3.3 |  |
| Pot Cap-1 Maneuver | 910 | 0 | - | 759 | - |  | - | ~61 | 90 | 373 | 62 | 75 | 449 |  |
| Stage 1 |  | - - | - | - | - |  | - | 316 | 365 | - | 366 | 356 | - |  |
| Stage 2 |  | - - | - | - | - |  | - | 319 | 376 | - | 306 | 321 | - |  |
| Platoon blocked, \% |  | - | - |  | - |  | - |  |  |  |  |  |  |  |
| Mov Cap-1 Maneuver | 910 | 0 | - | 759 | - |  | - | ~33 | 80 | 373 | 11 | 66 | 449 |  |
| Mov Cap-2 Maneuver |  | - | - | - | - |  | - | ~33 | 80 | - | 11 | 66 | - |  |
| Stage 1 |  | - - | - | - | - |  | - | 308 | 356 | - | 357 | 323 | - |  |
| Stage 2 |  | - - | - | - | - |  | - | 254 | 341 | - | 187 | 313 | - |  |
| Approach | EB |  |  | WB |  |  |  | NB |  |  | SB |  |  |  |
| HCM Control Delay, s | 0.2 |  |  | 0.9 |  |  |  | 1053.5 |  |  | 269.8 |  |  |  |
| HCM LOS |  |  |  |  |  |  |  | F |  |  | F |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 | EBL | EBT | EBR | WBL |  | WBT | WBR | SBLn1 |  |  |  |  |
| Capacity (veh/h) |  | 71 | 910 | - | - | 759 |  | - | - | 48 |  |  |  |  |
| HCM Lane V/C Ratio |  | 3.062 | 0.024 | - | - | 0.093 |  | - | - | 1.019 |  |  |  |  |
| HCM Control Delay (s) |  | \$ 1053.5 | 9.1 | - | - | 10.2 |  | - |  | 269.8 |  |  |  |  |
| HCM Lane LOS |  | F | A | - | - |  | B | - | - | F |  |  |  |  |
| HCM 95th \%tile Q(veh) |  | 22 | 0.1 | - | - | 0.3 | . 3 | - | - | 4.3 |  |  |  |  |
| Notes |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\sim$ : Volume exceeds cap | apacity | \$: Dea | lay exc | eeds 3 |  | +: Com | mp | putation | Not D | efined | *: All | major | lume in | in platoon |

## F.3. 2040 AM with Recommended PEL Laneage and ACP Implemented

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | ${ }_{1}$ | 个4 | F' | \% | 性 | 7 | ${ }_{1}$ | $\hat{*}$ |  | ${ }_{1}$ | $\hat{\beta}$ |  |
| Traffic Volume (veh/h) | 15 | 740 | 65 | 195 | 460 | 15 | 65 | 15 | 235 | 40 | 35 | 40 |
| Future Volume (veh/h) | 15 | 740 | 65 | 195 | 460 | 15 | 65 | 15 | 235 | 40 | 35 | 40 |
| Initial $Q(Q b)$, veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow, veh/h/ln | 1870 | 1826 | 1870 | 1870 | 1826 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 16 | 804 | 71 | 212 | 500 | 16 | 71 | 16 | 255 | 43 | 38 | 43 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% | 2 | 5 | 2 | 2 | 5 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 342 | 1019 | 466 | 458 | 1999 | 913 | 331 | 17 | 273 | 161 | 145 | 165 |
| Arrive On Green | 0.29 | 0.29 | 0.29 | 0.16 | 0.58 | 0.58 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 |
| Sat Flow, veh/h | 885 | 3469 | 1585 | 1781 | 3469 | 1585 | 1317 | 94 | 1505 | 1108 | 801 | 906 |
| Grp Volume(v), veh/h | 16 | 804 | 71 | 212 | 500 | 16 | 71 | 0 | 271 | 43 | 0 | 81 |
| Grp Sat Flow(s),veh/h/n | 885 | 1735 | 1585 | 1781 | 1735 | 1585 | 1317 | 0 | 1599 | 1108 | 0 | 1707 |
| Q Serve(g_s), s | 0.7 | 10.6 | 1.6 | 0.2 | 3.5 | 0.2 | 2.4 | 0.0 | 8.3 | 0.7 | 0.0 | 2.0 |
| Cycle Q Clear(g_c), s | 4.2 | 10.6 | 1.6 | 0.2 | 3.5 | 0.2 | 4.4 | 0.0 | 8.3 | 9.0 | 0.0 | 2.0 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.94 | 1.00 |  | 0.53 |
| Lane Grp Cap (c), veh/h | 342 | 1019 | 466 | 458 | 1999 | 913 | 331 | 0 | 290 | 161 | 0 | 310 |
| V/C Ratio(X) | 0.05 | 0.79 | 0.15 | 0.46 | 0.25 | 0.02 | 0.21 | 0.00 | 0.93 | 0.27 | 0.00 | 0.26 |
| Avail Cap(c_a), veh/h | 368 | 1120 | 512 | 458 | 2030 | 927 | 331 | 0 | 290 | 161 | 0 | 310 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 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 | 15.3 | 16.1 | 12.9 | 17.3 | 5.2 | 4.5 | 19.3 | 0.0 | 20.0 | 24.6 | 0.0 | 17.4 |
| Incr Delay (d2), s/veh | 0.1 | 3.9 | 0.2 | 0.7 | 0.1 | 0.0 | 0.5 | 0.0 | 35.8 | 1.2 | 0.0 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \%ile BackOfQ(50\%),veh/In | 0.1 | 3.5 | 0.4 | 1.7 | 0.6 | 0.0 | 0.7 | 0.0 | 5.7 | 0.5 | 0.0 | 0.8 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay(d),s/veh | 15.3 | 19.9 | 13.2 | 18.0 | 5.3 | 4.5 | 19.8 | 0.0 | 55.8 | 25.9 | 0.0 | 18.1 |
| LnGrp LOS | B | B | B | B | A | A | B | A | E | C | A | B |
| Approach Vol, veh/h |  | 891 |  |  | 728 |  |  | 342 |  |  | 124 |  |
| Approach Delay, s/veh |  | 19.3 |  |  | 9.0 |  |  | 48.3 |  |  | 20.8 |  |
| Approach LOS |  | B |  |  | A |  |  | D |  |  | C |  |


| Timer - Assigned Phs | 1 | 2 | 4 | 6 | 8 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Phs Duration (G+Y+Rc), s | 14.0 | 20.6 | 15.0 | 34.6 | 15.0 |
| Change Period (Y+Rc), s | 6.0 | $* 6$ | 6.0 | 6.0 | 6.0 |
| Max Green Setting (Gmax), s | 8.0 | $* 16$ | 9.0 | 29.0 | 9.0 |
| Max Q Clear Time (g_c+11), s | 2.2 | 12.6 | 11.0 | 5.5 | 10.3 |
| Green Ext Time (p_c), s | 0.3 | 2.0 | 0.0 | 4.2 | 0.0 |

Intersection Summary

| HCM 6th Ctrl Delay | 20.6 |
| :--- | ---: |
| HCM 6th LOS | C |

## Notes

User approved pedestrian interval to be less than phase max green.

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



## 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.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.
SH 662040 Fully Implemented PEL with ACP

## $\stackrel{\rightarrow}{*} \leftarrow 4 \downarrow$



HCM 6th Signalized Intersection Summary
4: 66th St \& SH 66

| Movement EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations \% | 4 | 7 | \% | 4 | 7 | ${ }^{*}$ | $\uparrow$ |  | ${ }^{*}$ | $\uparrow$ |  |
| Traffic Volume (veh/h) 30 | 510 | 20 | 25 | 890 | 10 | 15 | 5 | 15 | 20 | 5 | 15 |
| Future Volume (veh/h) 30 | 510 | 20 | 25 | 890 | 10 | 15 | 5 | 15 | 20 | 5 | 15 |
| Initial Q $(\mathrm{Qb})$, veh 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 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 | 554 | 22 | 27 | 967 | 11 | 16 | 5 | 16 | 22 | 5 | 16 |
| Peak Hour Factor 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h 191 | 1032 | 875 | 451 | 1024 | 868 | 415 | 94 | 300 | 415 | 94 | 300 |
| Arrive On Green 0.03 | 0.55 | 0.55 | 0.03 | 0.55 | 0.55 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 |
| Sat Flow, veh/h 1781 | 1870 | 1585 | 1781 | 1870 | 1585 | 1391 | 392 | 1253 | 1391 | 392 | 1253 |
| Grp Volume(v), veh/h 33 | 554 | 22 | 27 | 967 | 11 | 16 | 0 | 21 | 22 | 0 | 21 |
| Grp Sat Flow(s),veh/h/ln1781 | 1870 | 1585 | 1781 | 1870 | 1585 | 1391 | 0 | 1645 | 1391 | 0 | 1645 |
| Q Serve(g_s), s 0.6 | 14.2 | 0.5 | 0.5 | 36.4 | 0.2 | 0.7 | 0.0 | 0.7 | 0.9 | 0.0 | 0.7 |
| Cycle Q Clear(g_c), s 0.6 | 14.2 | 0.5 | 0.5 | 36.4 | 0.2 | 1.4 | 0.0 | 0.7 | 1.7 | 0.0 | 0.7 |
| Prop In Lane 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.76 | 1.00 |  | 0.76 |
| Lane Grp Cap(c), veh/h 191 | 1032 | 875 | 451 | 1024 | 868 | 415 | 0 | 394 | 415 | 0 | 394 |
| V/C Ratio(X) 0.17 | 0.54 | 0.03 | 0.06 | 0.94 | 0.01 | 0.04 | 0.00 | 0.05 | 0.05 | 0.00 | 0.05 |
| Avail Cap(c_a), veh/h 251 | 1083 | 918 | 519 | 1083 | 918 | 415 | 0 | 394 | 415 | 0 | 394 |
| HCM Platoon Ratio 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) $\quad 1.00$ | 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 16.1 | 10.7 | 7.6 | 8.2 | 15.9 | 7.7 | 22.5 | 0.0 | 22.0 | 22.6 | 0.0 | 22.0 |
| Incr Delay (d2), s/veh 0.4 | 0.5 | 0.0 | 0.1 | 15.4 | 0.0 | 0.2 | 0.0 | 0.3 | 0.2 | 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/lm0. 2 | 4.3 | 0.1 | 0.1 | 15.2 | 0.1 | 0.2 | 0.0 | 0.3 | 0.3 | 0.0 | 0.3 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay(d),s/veh 16.5 | 11.2 | 7.7 | 8.2 | 31.3 | 7.7 | 22.7 | 0.0 | 22.3 | 22.9 | 0.0 | 22.3 |
| LnGrp LOS B | B | A | A | C | A | C | A | C | C | A | C |
| Approach Vol, veh/h | 609 |  |  | 1005 |  |  | 37 |  |  | 43 |  |
| Approach Delay, s/veh | 11.3 |  |  | 30.4 |  |  | 22.5 |  |  | 22.6 |  |
| Approach LOS | B |  |  | C |  |  | C |  |  | C |  |


| Timer - Assigned Phs | 1 | 2 | 4 | 5 | 6 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Phs Duration (G+Y+Rc), s6.7 | 46.0 | 22.5 | 7.0 | 45.6 | 22.5 |
| Change Period (Y+Rc), s 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax5,.8 | 43.5 | 18.0 | 5.0 | 43.5 | 18.0 |
| Max Q Clear Time (g_c+\|12,5s | 16.2 | 3.7 | 2.6 | 38.4 | 3.4 |
| Green Ext Time (p_c), s 0.0 | 3.2 | 0.1 | 0.0 | 2.7 | 0.1 |

Intersection Summary

| HCM 6th Ctrl Delay | 23.2 |
| :--- | ---: |
| HCM 6th LOS | C |



User approved pedestrian interval to be less than phase max green.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |



| Major/Minor | Major1 |  | Major2 |  | Minor1 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 0 | 0 | 538 | 0 | - | 267 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | 4.14 | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 2.22 | - | - | 3.32 |
| Pot Cap-1 Maneuver | - | - | 1026 | - | 0 | 731 |
| Stage 1 | - | - | - | - | 0 | - |
| Stage 2 | - | - | - | - | 0 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 1026 | - | - | 731 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | NB |  |
| HCM Control Delay, s | 0 |  | 0.2 |  | 10.6 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | NBLn1 | EBT | EBR | 2 WBL WBT |  |
| Capacity (veh/h) |  | 731 | - | - | 1026 | W |
| HCM Lane V/C Ratio |  | 0.119 | - |  | 0.026 | - |
| HCM Control Delay (s) |  | 10.6 | - | - | 8.6 | - |
| HCM Lane LOS |  | B | - | - | A | - |
| HCM 95th \%tile Q(veh) |  | 0.4 | - | - | 0.1 | - |



| Major/Minor $\quad$ a | Major1 |  | Major2 |  | Minor2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 1168 | 0 | - | 0 | - | 584 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | 4.1 | - | - | - | - | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | 2.2 | - | - | - | - | 3.3 |
| Pot Cap-1 Maneuver | 605 | - | - | - | 0 | 460 |
| Stage 1 | - | - | - | - | 0 | - |
| Stage 2 | - | - | - | - | 0 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 605 | - | - | - | - | 460 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | SB |  |
| HCM Control Delay, s | 0.2 |  | 0 |  | 13.1 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | EBL | EBT | WBT | WBR SBLn1 |  |
| Capacity (veh/h) |  | 605 | - | - | - | 460 |
| HCM Lane V/C Ratio |  | 0.018 | - | - | - | 0.035 |
| HCM Control Delay (s) |  | 11.1 | - | - | - | 13.1 |
| HCM Lane LOS |  | B | - | - | - | B |
| HCM 95th \%tile Q(veh) |  | 0.1 | - | - | - | 0.1 |




| Movement | EBL | EBT | EBR2 | WBT | WBR | NBL | NBT | NBR2 | SBL2 | SBT | SBR | NWL2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | 5 | 44 | 7 | 44 | F | 5 | 4 | 「 | ${ }^{*}$ | 4 | 7 | 77 |
| Traffic Volume (vph) | 10 | 335 | 250 | 595 | 50 | 420 | 40 | 695 | 55 | 280 | 50 | 1350 |
| Future Volume (vph) | 10 | 335 | 250 | 595 | 50 | 420 | 40 | 695 | 55 | 280 | 50 | 1350 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.7 | 5.7 | 4.0 | 5.7 | 5.7 | 4.5 | 6.4 | 4.0 | 4.5 | 6.4 | 6.4 | 4.5 |
| Lane Util. Factor | 0.97 | 0.95 | 1.00 | 0.95 | 1.00 | 0.97 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 |
| Flt Protected | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 |
| Satd. Flow (prot) | 3502 | 3471 | 1599 | 3406 | 1615 | 3400 | 1863 | 1583 | 1805 | 1900 | 1583 | 3433 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.44 | 1.00 | 1.00 | 0.65 | 1.00 | 1.00 | 0.95 |
| Satd. Flow (perm) | 3502 | 3471 | 1599 | 3406 | 1615 | 1573 | 1863 | 1583 | 1240 | 1900 | 1583 | 3433 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 11 | 364 | 272 | 647 | 54 | 457 | 43 | 755 | 60 | 304 | 54 | 1467 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 41 | 0 |
| Lane Group Flow (vph) | 11 | 364 | 272 | 647 | 21 | 457 | 43 | 755 | 60 | 304 | 13 | 1467 |
| Heavy Vehicles (\%) | 0\% | 4\% | 1\% | 6\% | 0\% | 3\% | 2\% | 2\% | 0\% | 0\% | 2\% | 2\% |
| Turn Type | Prot | NA | Free | NA | Perm | pm+pt | NA | Free | pm+pt | NA | Perm | Prot |
| Protected Phases | 5 | 2 |  | 6 |  | 3 | 8 |  | 7 | 4 |  | 126 |
| Permitted Phases |  |  | Free |  | 6 | 8 |  | Free | 4 |  | 4 |  |
| Actuated Green, G (s) | 1.2 | 15.5 | 77.7 | 30.6 | 30.6 | 21.7 | 16.2 | 77.7 | 25.5 | 18.1 | 18.1 | 37.5 |
| Effective Green, g (s) | 1.2 | 15.5 | 77.7 | 30.6 | 30.6 | 21.7 | 16.2 | 77.7 | 25.5 | 18.1 | 18.1 | 37.5 |
| Actuated g/C Ratio | 0.02 | 0.20 | 1.00 | 0.39 | 0.39 | 0.28 | 0.21 | 1.00 | 0.33 | 0.23 | 0.23 | 0.48 |
| Clearance Time (s) | 5.7 | 5.7 |  | 5.7 | 5.7 | 4.5 | 6.4 |  | 4.5 | 6.4 | 6.4 |  |
| Vehicle Extension (s) | 3.0 | 3.0 |  | 3.0 | 3.0 | 3.0 | 4.0 |  | 3.0 | 4.0 | 4.0 |  |
| Lane Grp Cap (vph) | 54 | 692 | 1599 | 1341 | 636 | 568 | 388 | 1583 | 460 | 442 | 368 | 1656 |
| v/s Ratio Prot | 0.00 | 0.10 |  | 0.19 |  | 0.06 | 0.02 |  | 0.01 | 0.16 |  | c0.43 |
| v/s Ratio Perm |  |  | 0.17 |  | 0.01 | c0.17 |  | c0.48 | 0.03 |  | 0.01 |  |
| v/c Ratio | 0.20 | 0.53 | 0.17 | 0.48 | 0.03 | 0.80 | 0.11 | 0.48 | 0.13 | 0.69 | 0.03 | 0.89 |
| Uniform Delay, d1 | 37.8 | 27.8 | 0.0 | 17.6 | 14.5 | 25.1 | 24.9 | 0.0 | 18.2 | 27.2 | 23.0 | 18.2 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.65 |
| Incremental Delay, d2 | 1.9 | 0.7 | 0.2 | 0.3 | 0.0 | 8.1 | 0.2 | 1.0 | 0.1 | 4.8 | 0.1 | 4.9 |
| Delay (s) | 39.6 | 28.5 | 0.2 | 17.9 | 14.5 | 33.2 | 25.1 | 1.0 | 18.3 | 32.0 | 23.1 | 16.7 |
| Level of Service | D | C | A | B | B | C | C | A | B | C | C | B |
| Approach Delay (s) |  | 16.8 |  | 17.6 |  |  | 13.6 |  |  | 28.9 |  |  |
| Approach LOS |  | B |  | B |  |  | B |  |  | C |  |  |

Intersection Summary

| HCM 2000 Control Delay | 17.1 | HCM 2000 Level of Service | B |
| :--- | ---: | :--- | :---: |
| HCM 2000 Volume to Capacity ratio | 0.94 |  | 22.3 |
| Actuated Cycle Length (s) | 77.7 | Sum of lost time (s) | F |
| Intersection Capacity Utilization | $98.8 \%$ | ICU Level of Service |  |

Analysis Period (min)
15
C Critical Lane Group

|  | $\rightarrow$ | 2 | $\cdots$ |  | 》 | $\rho$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBT | EBR | WBL | WBT | NEL | NER |  |
| Lane Configurations | 4个 |  | $7{ }^{7}$ | ¢ $\uparrow$ |  | F |  |
| Traffic Volume (vph) | 355 | 0 | 1350 | 645 | 0 | 695 |  |
| Future Volume (vph) | 355 | 0 | 1350 | 645 | 0 | 695 |  |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |  |
| Total Lost time (s) | 5.7 |  | 4.5 | 4.0 |  | 4.0 |  |
| Lane Utill. Factor | 0.95 |  | 0.97 | 0.95 |  | 1.00 |  |
| Frt | 1.00 |  | 1.00 | 1.00 |  | 0.86 |  |
| Flt Protected | 1.00 |  | 0.95 | 1.00 |  | 1.00 |  |
| Satd. Flow (prot) | 3539 |  | 3433 | 3539 |  | 1611 |  |
| Flt Permitted | 1.00 |  | 0.95 | 1.00 |  | 1.00 |  |
| Satd. Flow (perm) | 3539 |  | 3433 | 3539 |  | 1611 |  |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |  |
| Adj. Flow (vph) | 386 | 0 | 1467 | 701 | 0 | 755 |  |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Lane Group Flow (vph) | 386 | 0 | 1467 | 701 | 0 | 755 |  |
| Turn Type | NA |  | Prot | NA |  | Free |  |
| Protected Phases | 2 |  | 134 | Free |  |  |  |
| Permitted Phases |  |  |  |  |  | Free |  |
| Actuated Green, G (s) | 15.5 |  | 52.0 | 77.7 |  | 77.7 |  |
| Effective Green, g (s) | 15.5 |  | 45.6 | 77.7 |  | 77.7 |  |
| Actuated g/C Ratio | 0.20 |  | 0.59 | 1.00 |  | 1.00 |  |
| Clearance Time (s) | 5.7 |  |  |  |  |  |  |
| Vehicle Extension (s) | 3.0 |  |  |  |  |  |  |
| Lane Grp Cap (vph) | 705 |  | 2014 | 3539 |  | 1611 |  |
| v/s Ratio Prot | 0.11 |  | c0.43 | 0.20 |  |  |  |
| v/s Ratio Perm |  |  |  |  |  | c0.47 |  |
| v/c Ratio | 0.55 |  | 0.73 | 0.20 |  | 0.47 |  |
| Uniform Delay, d1 | 27.9 |  | 11.6 | 0.0 |  | 0.0 |  |
| Progression Factor | 1.53 |  | 1.00 | 1.00 |  | 1.00 |  |
| Incremental Delay, d2 | 0.7 |  | 1.3 | 0.1 |  | 0.9 |  |
| Delay (s) | 43.4 |  | 12.9 | 0.1 |  | 0.9 |  |
| Level of Service | D |  | B | A |  | A |  |
| Approach Delay (s) | 43.4 |  |  | 8.8 | 0.9 |  |  |
| Approach LOS | D |  |  | A | A |  |  |
| Intersection Summary |  |  |  |  |  |  |  |
| HCM 2000 Control Delay |  |  | 11.0 |  | HCM 2000 | Level of Service | B |
| HCM 2000 Volume to Capacity ratio |  |  | 0.78 |  |  |  |  |
| Actuated Cycle Length (s) |  |  | 77.7 |  | Sum of lost | time (s) | 22.3 |
| Intersection Capacity Utilization |  |  | 56.4\% | ICU Level of Service |  |  | B |
| Analysis Period (min) |  |  | 15 |  |  |  |  |

c Critical Lane Group



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | \% | 个4 | F | 7\% | 性 | F | \% | $\uparrow$ | F | ${ }_{1}$ | $\uparrow$ | F |
| Traffic Volume (veh/h) | 5 | 1080 | 60 | 200 | 1945 | 10 | 95 | 10 | 170 | 10 | 10 | 10 |
| Future Volume (veh/h) | 5 | 1080 | 60 | 200 | 1945 | 10 | 95 | 10 | 170 | 10 | 10 | 10 |
| Initial Q (Qb), veh | 0 | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow, veh/h/ln | 1870 | 1856 | 1900 | 1885 | 1856 | 1870 | 1900 | 1870 | 1885 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 5 | 1174 | 65 | 217 | 2114 | 11 | 103 | 11 | 0 | 11 | 11 | 11 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% | 2 | 3 | 0 | 1 | 3 | 2 | 0 | 2 | 1 | 2 | 2 | 2 |
| Cap, veh/h | 127 | 2207 | 1008 | 699 | 2385 | 1072 | 178 | 181 |  | 107 | 107 | 91 |
| Arrive On Green | 0.01 | 0.63 | 0.63 | 0.06 | 0.68 | 0.68 | 0.05 | 0.10 | 0.00 | 0.01 | 0.06 | 0.06 |
| Sat Flow, veh/h | 1781 | 3526 | 1610 | 3483 | 3526 | 1585 | 1810 | 1870 | 1598 | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h | 5 | 1174 | 65 | 217 | 2114 | 11 | 103 | 11 | 0 | 11 | 11 | 11 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1763 | 1610 | 1742 | 1763 | 1585 | 1810 | 1870 | 1598 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s | 0.0 | 16.3 | 0.8 | 2.0 | 42.2 | 0.1 | 0.8 | 0.5 | 0.0 | 0.5 | 0.5 | 0.6 |
| Cycle Q Clear (g_c), s | 0.0 | 16.3 | 0.8 | 2.0 | 42.2 | 0.1 | 0.8 | 0.5 | 0.0 | 0.5 | 0.5 | 0.6 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Lane Grp Cap (c), veh/h | 127 | 2207 | 1008 | 699 | 2385 | 1072 | 178 | 181 |  | 107 | 107 | 91 |
| V/C Ratio(X) | 0.04 | 0.53 | 0.06 | 0.31 | 0.89 | 0.01 | 0.58 | 0.06 |  | 0.10 | 0.10 | 0.12 |
| Avail Cap(c_a), veh/h | 217 | 2507 | 1145 | 784 | 2592 | 1165 | 187 | 387 |  | 185 | 387 | 328 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 30.4 | 9.1 | 2.2 | 8.3 | 11.4 | 1.9 | 39.1 | 35.7 | 0.0 | 41.3 | 38.9 | 38.9 |
| Incr Delay (d2), s/veh | 0.1 | 0.2 | 0.0 | 0.3 | 3.9 | 0.0 | 4.0 | 0.1 | 0.0 | 0.4 | 0.4 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \%ile BackOfQ(50\%),veh/ln | 0.1 | 4.5 | 0.3 | 0.5 | 11.4 | 0.0 | 2.2 | 0.2 | 0.0 | 0.2 | 0.2 | 0.2 |

Unsig. Movement Delay, s/veh

| LnGrp Delay(d),s/veh | 30.5 | 9.3 | 2.2 | 8.5 | 15.3 | 1.9 | 43.2 | 35.9 | 0.0 | 41.7 | 39.3 | 39.5 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| LnGrp LOS | C | A | A | A | B | A | D | D |  | D | D | D |
| Approach Vol, veh/h |  | 1244 |  |  | 2342 |  |  | 114 | A | 33 |  |  |
| Approach Delay, s/veh |  | 9.0 |  |  | 14.6 |  |  | 42.4 |  |  |  |  |
| Approach LOS |  | A |  |  | B |  |  | D |  | 40.2 |  |  |
| D |  |  |  |  |  |  |  |  |  |  |  |  |


| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Phs Duration (G+Y+Rc), s | 5.7 | 12.9 | 9.5 | 59.0 | 9.1 | 9.5 | 5.1 | 63.4 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 5.0 | 18.0 | 7.1 | 61.9 | 5.0 | 18.0 | 5.0 | 64.0 |
| Max Q Clear Time (g_c +11 ), s | 2.5 | 2.5 | 4.0 | 18.3 | 2.8 | 2.6 | 2.0 | 44.2 |
| Green Ext Time (p_c), s | 0.0 | 0.0 | 0.2 | 9.6 | 0.0 | 0.0 | 0.0 | 14.7 |

Intersection Summary

| HCM 6th Ctrl Delay | 13.8 |
| :--- | ---: |
| HCM 6th LOS | $B$ |

## Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



## US287/SH66 DLT

Nodes






c Critical Lane Group

c Critical Lane Group

c Critical Lane Group

c Critical Lane Group

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | \％ | 雨个 | 44 | 「 | \％ | F＇ |
| Traffic Volume（veh／h） | 20 | 920 | 1250 | 35 | 15 | 10 |
| Future Volume（veh／h） | 20 | 920 | 1250 | 35 | 15 | 10 |
| Initial Q（Qb），veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） | 1.00 |  |  | 1.00 | 1.00 | ． 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 | 22 | 1000 | 1359 | 38 | 16 | 11 |
| 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 | 342 | 4030 | 2500 | 1115 | 261 | 232 |
| Arrive On Green | 0.02 | 0.26 | 0.70 | 0.70 | 0.15 | 0.15 |
| Sat Flow，veh／h | 1781 | 5274 | 3647 | 1585 | 1781 | 1585 |
| Grp Volume（v），veh／h | 22 | 1000 | 1359 | 38 | 16 | 11 |
| Grp Sat Flow（s），veh／h |  | 1702 | 1777 | 1585 | 1781 | 1585 |
| Q Serve（g＿s），s | 0.0 | 21.7 | 25.7 | 1.0 | 1.1 | 0.8 |
| Cycle Q Clear（g＿ | 0.0 | 21.7 | 25.7 | 1.0 | 1.1 | 0.8 |
| Prop In Lane | 1.00 |  |  | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap（c） | 342 | 4030 | 2500 | 1115 | 261 | 232 |
| V／C Ratio（X） | 0.06 | 0.25 | 0.54 | 0.03 | 0.06 | 0.05 |
| Avail Cap（c＿a），veh／ | 342 | 4030 | 2500 | 1115 | 261 | 232 |
| HCM Platoon Ratio | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter（I） | 0.97 | 0.97 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay（d），s／veh | 15.0 | 18.9 | 10.0 | 6.3 | 51.5 | 51.4 |
| Incr Delay（d2），s／veh | 0.1 | 0.1 | 0.9 | 0.1 | 0.5 | 0.4 |
| Initial Q Delay（d3），s／veh |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \％ile BackOfQ（50\％），veh | ／lm0． 3 | 9.8 | 6 | 3 | 0.5 | 0.8 |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh | 15.1 | 19.1 | 10.8 | 6.4 | 51.9 | 51.7 |
| LnGrp LOS | B | B | B | A | D | D |
| Approach Vol，veh／h |  | 1022 | 1397 |  | 27 |  |
| Approach Delay，s／veh |  | 19.0 | 10.7 |  | 51.8 |  |
| Approach LOS |  | B | B |  | D |  |


| Timer－Assigned Phs | 4 | 6 | 7 | 8 |
| :--- | ---: | ---: | ---: | ---: |
| Phs Duration（G＋Y＋Rc），s | 115.0 | 25.0 | 12.0 | 103.0 |
| Change Period（Y＋Rc），s | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting（Gmax），s | 110.5 | 20.5 | 7.5 | 98.5 |
| Max Q Clear Time（g＿c＋11），s | 23.7 | 3.1 | 2.0 | 27.7 |
| Green Ext Time（p＿c），s | 7.4 | 0.0 | 0.0 | 12.6 |
| Intersection Summary |  |  |  |  |
| HCM 6th Ctrl Delay | 14.6 |  |  |  |
| 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 | 44 | 7 | \% | 44 | 7 | ${ }^{*}$ | 4 | 7 | ${ }_{1}$ | 4 | 7 |
| Traffic Volume (veh/h) 5 | 1045 | 55 | 55 | 1255 | 25 | 75 | 20 | 55 | 5 | 20 | 15 |
| Future Volume (veh/h) 5 | 1045 | 55 | 55 | 1255 | 25 | 75 | 20 | 55 | 5 | 20 | 15 |
| Initial Q $(\mathrm{Qb})$, veh 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow, veh/h/ln 1870 | 1752 | 1796 | 1856 | 1781 | 1870 | 1796 | 1870 | 1856 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h 5 | 1136 | 60 | 60 | 1364 | 27 | 82 | 22 | 60 | 5 | 22 | 16 |
| Peak Hour Factor 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% 2 | 10 | 7 | 3 | 8 | 2 | 7 | 2 | 3 | 2 | 2 | 2 |
| Cap, veh/h 206 | 1590 | 727 | 367 | 1821 | 853 | 329 | 239 | 201 | 329 | 239 | 202 |
| Arrive On Green 0.01 | 0.48 | 0.48 | 0.07 | 0.54 | 0.54 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 |
| Sat Flow, veh/h 1781 | 3328 | 1522 | 1767 | 3385 | 1585 | 1315 | 1870 | 1572 | 1316 | 1870 | 1585 |
| Grp Volume(v), veh/h 5 | 1136 | 60 | 60 | 1364 | 27 | 82 | 22 | 60 | 5 | 22 | 16 |
| Grp Sat Flow(s),veh/h/ln1781 | 1664 | 1522 | 1767 | 1692 | 1585 | 1315 | 1870 | 1572 | 1316 | 1870 | 1585 |
| Q Serve(g_s), s 0.1 | 11.1 | 0.9 | 0.0 | 12.8 | 0.3 | 2.4 | 0.4 | 1.4 | 0.1 | 0.4 | 0.4 |
| Cycle Q Clear(g_c), s 0.1 | 11.1 | 0.9 | 0.0 | 12.8 | 0.3 | 2.8 | 0.4 | 1.4 | 0.6 | 0.4 | 0.4 |
| Prop In Lane $\quad 1.00$ |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Lane Grp Cap(c), veh/h 206 | 1590 | 727 | 367 | 1821 | 853 | 329 | 239 | 201 | 329 | 239 | 202 |
| V/C Ratio(X) 0.02 | 0.71 | 0.08 | 0.16 | 0.75 | 0.03 | 0.25 | 0.09 | 0.30 | 0.02 | 0.09 | 0.08 |
| Avail Cap(c_a), veh/h 410 | 2303 | 1053 | 463 | 2342 | 1097 | 736 | 817 | 687 | 736 | 817 | 693 |
| HCM Platoon Ratio 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh 9.7 | 8.5 | 5.8 | 14.2 | 7.4 | 4.5 | 17.1 | 15.9 | 16.3 | 16.1 | 15.9 | 15.8 |
| Incr Delay (d2), s/veh 0.0 | 0.6 | 0.0 | 0.2 | 1.0 | 0.0 | 0.4 | 0.2 | 0.8 | 0.0 | 0.2 | 0.2 |
| Initial Q Delay(d3),s/veh 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \%ile BackOfQ(50\%),veh/lm0. 0 | 1.9 | 0.1 | 0.4 | 1.7 | 0.0 | 0.7 | 0.2 | 0.5 | 0.0 | 0.2 | 0.1 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay(d),s/veh 9.8 | 9.1 | 5.9 | 14.4 | 8.4 | 4.5 | 17.5 | 16.0 | 17.1 | 16.1 | 16.0 | 16.0 |
| LnGrp LOS A | A | A | B | A | A | B | B | B | B | B | B |
| Approach Vol, veh/h | 1201 |  |  | 1451 |  |  | 164 |  |  | 43 |  |
| Approach Delay, s/veh | 9.0 |  |  | 8.6 |  |  | 17.2 |  |  | 16.0 |  |
| Approach LOS | A |  |  | A |  |  | B |  |  | B |  |
| Timer - Assigned Phs 1 | 2 |  | 4 | 5 | 6 |  | 8 |  |  |  |  |
| Phs Duration ( $\mathrm{G}+\mathrm{Y}+\mathrm{Rc}$ ), s7.3 | 24.2 |  | 9.8 | 4.8 | 26.7 |  | 9.8 |  |  |  |  |
| Change Period (Y+Rc), s 4.5 | 4.5 |  | 4.5 | 4.5 | 4.5 |  | 4.5 |  |  |  |  |
| Max Green Setting (Gmax5., 8 | 28.5 |  | 18.0 | 5.0 | 28.5 |  | 18.0 |  |  |  |  |
| Max Q Clear Time (g_c+1ı2,@ | 13.1 |  | 2.6 | 2.1 | 14.8 |  | 4.8 |  |  |  |  |
| Green Ext Time (p_c), s 0.0 | 6.5 |  | 0.1 | 0.0 | 7.3 |  | 0.4 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th Ctrl Delay |  | 9.3 |  |  |  |  |  |  |  |  |  |
| HCM 6th LOS |  | A |  |  |  |  |  |  |  |  |  |



## Notes

User approved pedestrian interval to be less than phase max green.

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

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.
SH 662040 Fully Implemented PEL with ACP

| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.1 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 1 |  |  |  | 个4 |  |
| F |  |  |  |  |  |  |
| Traffic Vol, veh/h | 1160 | 10 | 0 | 1500 | 0 | 10 |
| Future Vol, veh/h | 1160 | 10 | 0 | 1500 | 0 | 10 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1261 | 11 | 0 | 1630 | 0 | 11 |


| Major/Minor | Major1 | Major2 |  | Minor1 |  |  |
| :---: | :---: | :---: | :---: | :---: | ---: | ---: |
| Conflicting Flow All | 0 | 0 | - | - | - | 636 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | - | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | - | - | - | 3.32 |
| Pot Cap-1 Maneuver | - | - | 0 | - | 0 | 421 |
| Stage 1 | - | - | 0 | - | 0 | - |
| Stage 2 | - | - | 0 | - | 0 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | - | - | - | 421 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |


| Approach | EB | WB | NB |
| :--- | ---: | ---: | ---: |
| HCM Control Delay, s | 0 | 0 | 13.8 |

HCM LOS B

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
| :--- | ---: | ---: | ---: | :---: |
| Capacity (veh/h) | 421 | - | - | - |
| HCM Lane V/C Ratio | 0.026 | - | - | - |
| HCM Control Delay (s) | 13.8 | - | - | - |
| HCM Lane LOS | B | - | - | - |
| HCM 95th \%tile Q(veh) | 0.1 | - | - | - |


| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | \% | 性 | 7 | \% | 性 | 7 | \% | $\uparrow$ | 7 | \% | $\uparrow$ | 7 |
| Traffic Volume (veh/h) | 140 | 1020 | 5 | 10 | 1410 | 85 | 20 | 10 | 5 | 65 | 25 | 70 |
| Future Volume (veh/h) | 140 | 1020 | 5 | 10 | 1410 | 85 | 20 | 10 | 5 | 65 | 25 | 70 |
| Initial $Q(Q b)$, veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 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 | 152 | 1109 | 5 | 11 | 1533 | 92 | 22 | 11 | 5 | 71 | 27 | 76 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 287 | 2092 | 933 | 335 | 1892 | 844 | 248 | 139 | 118 | 301 | 195 | 165 |
| Arrive On Green | 0.07 | 0.59 | 0.59 | 0.01 | 0.53 | 0.53 | 0.03 | 0.07 | 0.07 | 0.05 | 0.10 | 0.10 |
| Sat Flow, veh/h | 1781 | 3554 | 1585 | 1781 | 3554 | 1585 | 1781 | 1870 | 1585 | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h | 152 | 1109 | 5 | 11 | 1533 | 92 | 22 | 11 | 5 | 71 | 27 | 76 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1781 | 1870 | 1585 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s | 2.4 | 12.5 | 0.1 | 0.2 | 23.8 | 1.9 | 0.8 | 0.4 | 0.2 | 2.4 | 0.9 | 3.0 |
| Cycle Q Clear (g_c), s | 2.4 | 12.5 | 0.1 | 0.2 | 23.8 | 1.9 | 0.8 | 0.4 | 0.2 | 2.4 | 0.9 | 3.0 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Lane Grp Cap (c), veh/h | 287 | 2092 | 933 | 335 | 1892 | 844 | 248 | 139 | 118 | 301 | 195 | 165 |
| V/C Ratio(X) | 0.53 | 0.53 | 0.01 | 0.03 | 0.81 | 0.11 | 0.09 | 0.08 | 0.04 | 0.24 | 0.14 | 0.46 |
| Avail Cap(c_a), veh/h | 308 | 2331 | 1040 | 443 | 2305 | 1028 | 336 | 502 | 425 | 337 | 502 | 425 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 13.3 | 8.3 | 5.7 | 7.5 | 12.9 | 7.8 | 27.5 | 28.9 | 28.8 | 26.5 | 27.3 | 28.3 |
| Incr Delay (d2), s/veh | 1.5 | 0.2 | 0.0 | 0.0 | 1.9 | 0.1 | 0.2 | 0.2 | 0.1 | 0.4 | 0.3 | 2.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \%ile BackOfQ(50\%),veh/ln | 1.0 | 3.0 | 0.0 | 0.1 | 6.8 | 0.5 | 0.3 | 0.2 | 0.1 | 1.0 | 0.4 | 1 |

Unsig. Movement Delay, s/veh

| LnGrp Delay(d),s/veh | 14.8 | 8.5 | 5.7 | 7.6 | 14.8 | 7.8 | 27.7 | 29.1 | 29.0 | 26.9 | 27.6 | 30.3 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| LnGrp LOS | B | A | A | A | B | A | C | C | C | C | C | C |
| Approach Vol, veh/h |  | 1266 |  |  | 1636 |  |  | 38 |  | 174 |  |  |
| Approach Delay, s/veh |  | 9.2 |  |  | 14.4 |  |  | 28.3 |  | 28.5 |  |  |
| Approach LOS |  | A |  |  | B |  |  | C |  | C |  |  |


| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Phs Duration (G+Y+Rc), s | 5.4 | 44.0 | 6.2 | 11.5 | 9.2 | 40.2 | 8.2 | 9.5 |
| Change Period $(\mathrm{Y}+\mathrm{Rc})$, s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 5.0 | 44.0 | 5.0 | 18.0 | 5.5 | 43.5 | 5.0 | 18.0 |
| Max Q Clear Time (g_c+11), s | 2.2 | 14.5 | 2.8 | 5.0 | 4.4 | 25.8 | 4.4 | 2.4 |
| Green Ext Time (p_c), s | 0.0 | 7.9 | 0.0 | 0.2 | 0.0 | 9.9 | 0.0 | 0.0 |

Intersection Summary

| HCM 6th Ctrl Delay | 13.2 |
| :--- | ---: |
| HCM 6th LOS | B |



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |




| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations |  | 个ヶヶ | F | 7 | 44 |  |  |  |  | \％ | $\uparrow$ | F |
| Traffic Volume（veh／h） | 0 | 995 | 605 | 535 | 1105 | 0 | 0 | 0 | 0 | 215 | 10 | 355 |
| Future Volume（veh／h） | 0 | 995 | 605 | 535 | 1105 | 0 | 0 | 0 | 0 | 215 | 10 | 355 |
| Initial $Q(Q b)$ ，veh | 0 | 0 | 0 | 0 | 0 | 0 |  |  |  | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） | 1.00 |  | 1.00 | 1.00 |  | 1.00 |  |  |  | 1.00 |  | 1.00 |
| Parking Bus，Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |  | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  |  |  |  | No |  |
| Adj Sat Flow，veh／h／ln | 0 | 1856 | 1856 | 1688 | 1796 | 0 |  |  |  | 1737 | 1411 | 1856 |
| Adj Flow Rate，veh／h | 0 | 1082 | 0 | 582 | 1201 | 0 |  |  |  | 242 | 0 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |  |  |  | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh，\％ | 0 | 3 | 3 | 8 | 7 | 0 |  |  |  | 11 | 33 | 3 |
| Cap，veh／h | 0 | 1925 |  | 1009 | 2641 | 0 |  |  |  | 319 | 0 |  |
| Arrive On Green | 0.00 | 0.76 | 0.00 | 0.65 | 1.00 | 0.00 |  |  |  | 0.10 | 0.00 | 0.00 |
| Sat Flow，veh／h | 0 | 5233 | 1572 | 3118 | 3503 | 0 |  |  |  | 3309 | 0 | 1572 |
| Grp Volume（v），veh／h | 0 | 1082 | 0 | 582 | 1201 | 0 |  |  |  | 242 | 0 | 0 |
| Grp Sat Flow（s），veh／h／ln | 0 | 1689 | 1572 | 1559 | 1706 | 0 |  |  |  | 1654 | 0 | 1572 |
| Q Serve（g＿s），s | 0.0 | 8.9 | 0.0 | 10.5 | 0.0 | 0.0 |  |  |  | 7.1 | 0.0 | 0.0 |
| Cycle Q Clear（g＿c），s | 0.0 | 8.9 | 0.0 | 10.5 | 0.0 | 0.0 |  |  |  | 7.1 | 0.0 | 0.0 |
| Prop In Lane | 0.00 |  | 1.00 | 1.00 |  | 0.00 |  |  |  | 1.00 |  | 1.00 |
| Lane Grp Cap（c），veh／h | 0 | 1925 |  | 1009 | 2641 | 0 |  |  |  | 319 | 0 |  |
| V／C Ratio（X） | 0.00 | 0.56 |  | 0.58 | 0.45 | 0.00 |  |  |  | 0.76 | 0.00 |  |
| Avail Cap（c＿a），veh／h | 0 | 1925 |  | 1009 | 2641 | 0 |  |  |  | 596 | 0 |  |
| HCM Platoon Ratio | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 1.00 |  |  |  | 1.00 | 1.00 | 1.00 |
| Upstream Filter（l） | 0.00 | 0.75 | 0.00 | 0.53 | 0.53 | 0.00 |  |  |  | 1.00 | 0.00 | 0.00 |
| Uniform Delay（d），s／veh | 0.0 | 8.5 | 0.0 | 13.8 | 0.0 | 0.0 |  |  |  | 44.1 | 0.0 | 0.0 |
| Incr Delay（d2），s／veh | 0.0 | 0.9 | 0.0 | 0.4 | 0.3 | 0.0 |  |  |  | 3.7 | 0.0 | 0.0 |
| Initial Q Delay（d3），s／veh |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |  |  | 0.0 | 0.0 | 0.0 |
| \％ile BackOfQ（50\％），veh／lm0． |  | 2.2 | 0.0 | 2.5 | 0.1 | 0.0 |  |  |  | 3.0 | 0.0 | 0.0 |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { LnGrp Delay(d),s/veh } \\ & \text { LnGrp LOS } \end{aligned}$ | 0.0 | 9.4 | 0.0 | 14.2 | 0.3 | 0.0 |  |  |  | 47.8 | 0.0 | 0.0 |
|  | A | A |  | B | A | A |  |  |  | D | A |  |
| Approach Vol，veh／h |  | 1082 | A |  | 1783 |  |  |  |  |  | 242 | A |
| Approach Delay，s／veh |  | 9.4 |  |  | 4.8 |  |  |  |  |  | 47.8 |  |
| Approach LOS |  | A |  |  | A |  |  |  |  |  | D |  |


| Timer－Assigned Phs | 1 | 2 | 4 | 6 |
| :--- | ---: | ---: | ---: | ---: |
| Phs Duration（G＋Y＋Rc），39．4 | 45.0 | 15.6 | 84.4 |  |
| Change Period（Y＋Rc），s 7．0 | 7.0 | 6.0 | 7.0 |  |
| Max Green Setting（Gma\＆4，\＆ | 38.0 | 18.0 | 69.0 |  |
| Max Q Clear Time（g＿c＋M12，5s | 10.9 | 9.1 | 2.0 |  |
| Green Ext Time（p＿c），s | 1.6 | 7.3 | 0.5 | 10.1 |

Intersection Summary
HCM 6th Ctrl Delay 9.8

HCM 6th LOS A

## Notes

User approved volume balancing among the lanes for turning movement．
Unsignalized Delay for［EBR，SBR］is excluded from calculations of the approach delay and intersection delay．

| Movement EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | 坐 |  |  | 个个个 | 「 | ${ }_{1}$ | $\uparrow$ | F＇ |  |  |  |  |
| Traffic Volume（veh／h） 205 | 1005 | 0 | 0 | 1325 | 305 | 815 | 5 | 520 | 0 | 0 | 0 |  |
| Future Volume（veh／h） 205 | 1005 | 0 | 0 | 1325 | 305 | 815 | 5 | 520 | 0 | 0 | 0 |  |
| Initial $\mathrm{Q}(\mathrm{Qb})$ ，veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |  |  |  |
| Ped－Bike Adj（A＿pbT） 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |  |  |  |  |
| Parking Bus，Adj 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |  |  |
| Work Zone On Approach | No |  |  | No |  |  | No |  |  |  |  |  |
| Adj Sat Flow，veh／h／ln 1758 | 1826 | 0 | 0 | 1781 | 1693 | 1716 | 1900 | 1737 |  |  |  |  |
| Adj Flow Rate，veh／h 223 | 1092 | 0 | 0 | 1440 | 0 | 890 | 0 | 0 |  |  |  |  |
| Peak Hour Factor 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |  |  |  |  |
| Percent Heavy Veh，\％ 3 | 5 | 0 | 0 | 8 | 14 | 6 | 0 | 11 |  |  |  |  |
| Cap，veh／h 439 | 1961 | 0 | 0 | 1751 |  | 996 | 0 |  |  |  |  |  |
| Arrive On Green 0.27 | 1.00 | 0.00 | 0.00 | 0.36 | 0.00 | 0.30 | 0.00 | 0.00 |  |  |  |  |
| Sat Flow，veh／h 3248 | 3561 | 0 | 0 | 5024 | 1434 | 3268 | 0 | 1472 |  |  |  |  |
| Grp Volume（v），veh／h 223 | 1092 | 0 | 0 | 1440 | 0 | 890 | 0 | 0 |  |  |  |  |
| Grp Sat Flow（s），veh／h／ln1624 | 1735 | 0 | 0 | 1621 | 1434 | 1634 | 0 | 1472 |  |  |  |  |
| Q Serve（g＿s），s 5.8 | 0.0 | 0.0 | 0.0 | 26.9 | 0.0 | 26.0 | 0.0 | 0.0 |  |  |  |  |
| Cycle Q Clear（g＿c），s 5.8 | 0.0 | 0.0 | 0.0 | 26.9 | 0.0 | 26.0 | 0.0 | 0.0 |  |  |  |  |
| Prop In Lane $\quad 1.00$ |  | 0.00 | 0.00 |  | 1.00 | 1.00 |  | 1.00 |  |  |  |  |
| Lane Grp Cap（c），veh／h 439 | 1961 | 0 | 0 | 1751 |  | 996 | 0 |  |  |  |  |  |
| V／C Ratio（X） 0.51 | 0.56 | 0.00 | 0.00 | 0.82 |  | 0.89 | 0.00 |  |  |  |  |  |
| Avail Cap（c＿a），veh／h 439 | 1961 | 0 | 0 | 1751 |  | 1209 | 0 |  |  |  |  |  |
| HCM Platoon Ratio 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |  |  |
| Upstream Filter（l） 0.85 | 0.85 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 |  |  |  |  |
| Uniform Delay（d），s／veh 33.7 | 0.0 | 0.0 | 0.0 | 29.1 | 0.0 | 33.2 | 0.0 | 0.0 |  |  |  |  |
| Incr Delay（d2），s／veh 0.8 | 1.0 | 0.0 | 0.0 | 4.5 | 0.0 | 7.7 | 0.0 | 0.0 |  |  |  |  |
| Initial Q Delay（d3），s／veh 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |  |  |  |
| \％ile BackOfQ（50\％），veh／Ir2． 0 | 0.3 | 0.0 | 0.0 | 10.1 | 0.0 | 10.7 | 0.0 | 0.0 |  |  |  |  |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh 34.5 | 1.0 | 0.0 | 0.0 | 33.6 | 0.0 | 40.9 | 0.0 | 0.0 |  |  |  |  |
| LnGrp LOS C | A | A | A | C |  | D | A |  |  |  |  |  |
| Approach Vol，veh／h | 1315 |  |  | 1440 | A |  | 890 | A |  |  |  |  |
| Approach Delay，s／veh | 6.7 |  |  | 33.6 |  |  | 40.9 |  |  |  |  |  |
| Approach LOS | A |  |  | C |  |  | D |  |  |  |  |  |
| Timer－Assigned Phs | 2 |  |  | 5 | 6 |  | 8 |  |  |  |  |  |
| Phs Duration（ $\mathrm{G}+\mathrm{Y}+\mathrm{Rc}$ ），s | 63.5 |  |  | 20.5 | 43.0 |  | 36.5 |  |  |  |  |  |
| Change Period（ $\mathrm{Y}+\mathrm{Rc}$ ），s | 7.0 |  |  | 7.0 | ＊ 7 |  | 6.0 |  |  |  |  |  |
| Max Green Setting（Gmax），s | 50.0 |  |  | 9.0 | ＊ 36 |  | 37.0 |  |  |  |  |  |
| Max Q Clear Time（g＿c＋11），s | 2.0 |  |  | 7.8 | 28.9 |  | 28.0 |  |  |  |  |  |
| Green Ext Time（p＿c），s | 8.4 |  |  | 0.1 | 4.6 |  | 2.5 |  |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th Ctrl DelayHCM 6th LOS |  | 25.7 |  |  |  |  |  |  |  |  |  |  |
|  |  | 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．
Unsignalized Delay for［NBR，WBR］is excluded from calculations of the approach delay and intersection delay．


| Major/Minor | Major1 |  |  | Major2 |  |  | Minor1 |  |  | Minor2 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 1625 | 0 | 0 | 1392 | 0 | 0 | - | - | 696 | - | - | 813 |  |
| Stage 1 | - | - |  | - |  | - - | - |  | - | - | - | - |  |
| Stage 2 | - | - | - | - | - | - - | - | - |  | - | - |  |  |
| Critical Hdwy | 5.34 | - | - | 5.36 | - | - - | - |  | 7.16 | - | - | 7.14 |  |
| Critical Hdwy Stg 1 | - | - | - | - | - | - - | - | - | - | - | - | - |  |
| Critical Hdwy Stg 2 | - | - | - | - |  | - - | - | - | - | - | - | - |  |
| Follow-up Hdwy | 3.12 | - | - | 3.13 | - | - - | - | - | 3.93 | - | - | 3.92 |  |
| Pot Cap-1 Maneuver | ~193 | - | - | 250 | - | - - | 0 | 0 | 328 | 0 | 0 | 276 |  |
| Stage 1 | - | - | - | - | - | - - | 0 | 0 | - | 0 | 0 | - |  |
| Stage 2 | - | - | - | - | - | - - | 0 | 0 | - | 0 | 0 | - |  |
| Platoon blocked, \% |  | - | - |  | - | - - |  |  |  |  |  |  |  |
| Mov Cap-1 Maneuver | ~ 193 | - |  | 250 | - | - - | - | - | 328 | - | - | 276 |  |
| Mov Cap-2 Maneuver | - | - | - | - | - | - - | - | - | - | - | - | - |  |
| Stage 1 | - | - | - | - | - | - - | - | - | - | - | - | - |  |
| Stage 2 | - | - | - | - | - | - - | - | - | - | - | - | - |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Approach | EB |  |  | WB |  |  | NB |  |  | SB |  |  |  |
| HCM Control Delay, s | 39.6 |  |  | 0.6 |  |  | 23.5 |  |  | 76.9 |  |  |  |
| HCM LOS |  |  |  |  |  |  | C |  |  | F |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Minor Lane/Major Mvm |  | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |  |  |  |  |
| Capacity (veh/h) |  | 328 | $\sim 193$ | - |  | 250 | - | - | 276 |  |  |  |  |
| HCM Lane V/C Ratio |  | 0.414 | 1.38 | - |  | - 0.174 | - | - | 0.925 |  |  |  |  |
| HCM Control Delay (s) |  | 23.5 | 246.5 | - | - | 22.4 | - | - | 76.9 |  |  |  |  |
| HCM Lane LOS |  | C | F | - | - | C | - | - | F |  |  |  |  |
| HCM 95th \%tile Q(veh) |  | 2 | 15.6 | - | - | 0.6 | - | - | 8.6 |  |  |  |  |
| Notes |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\sim$ : Volume exceeds capacity |  | \$: Delay exceeds 300s |  |  |  | +: Computation Not Defined |  |  |  | *: All major volume in platoon |  |  |  |


|  | 4 | $\rightarrow$ |  | $\dagger$ |  |  | 4 | $\uparrow$ | $>$ |  | $\downarrow$ | $\downarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | 7\% |  | 7 |  |  |  |  | 个4 | F | \% | 个4 |  |
| Trafic Volume (vph) | 395 | 0 | 420 | 0 | 0 | 0 | 0 | 660 | 115 | 30 | 610 | 0 |
| Future Volume (vph) | 395 | 0 | 420 | 0 | 0 | 0 | 0 | 660 | 115 | 30 | 610 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 4.5 |  | 4.5 |  |  |  |  | 4.5 | 4.5 | 4.5 | 4.5 |  |
| Lane Util. Factor | 0.97 |  | 1.00 |  |  |  |  | 0.95 | 1.00 | 1.00 | 0.95 |  |
| Frt | 1.00 |  | 0.85 |  |  |  |  | 1.00 | 0.85 | 1.00 | 1.00 |  |
| Flt Protected | 0.95 |  | 1.00 |  |  |  |  | 1.00 | 1.00 | 0.95 | 1.00 |  |
| Satd. Flow (prot) | 3433 |  | 1583 |  |  |  |  | 3539 | 1583 | 1770 | 3539 |  |
| Flt Permitted | 0.95 |  | 1.00 |  |  |  |  | 1.00 | 1.00 | 0.17 | 1.00 |  |
| Satd. Flow (perm) | 3433 |  | 1583 |  |  |  |  | 3539 | 1583 | 312 | 3539 |  |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 429 | 0 | 457 | 0 | 0 | 0 | 0 | 717 | 125 | 33 | 663 | 0 |
| RTOR Reduction (vph) | 0 | 0 | 77 | 0 | 0 | 0 | 0 | 0 | 90 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 429 | 0 | 380 | 0 | 0 | 0 | 0 | 717 | 35 | 33 | 663 | 0 |
| Turn Type | Perm |  | Perm |  |  |  |  | NA | Perm | pm+pt | NA |  |
| Protected Phases |  |  |  |  |  |  |  | 8 |  | 7 | 4 |  |
| Permitted Phases | 2 |  | 2 |  |  |  |  |  | 8 | 4 |  |  |
| Actuated Green, G (s) | 35.1 |  | 35.1 |  |  |  |  | 19.4 | 19.4 | 25.9 | 25.9 |  |
| Effective Green, $\mathrm{g}(\mathrm{s})$ | 35.1 |  | 35.1 |  |  |  |  | 19.4 | 19.4 | 25.9 | 25.9 |  |
| Actuated g/C Ratio | 0.50 |  | 0.50 |  |  |  |  | 0.28 | 0.28 | 0.37 | 0.37 |  |
| Clearance Time (s) | 4.5 |  | 4.5 |  |  |  |  | 4.5 | 4.5 | 4.5 | 4.5 |  |
| Vehicle Extension (s) | 3.0 |  | 3.0 |  |  |  |  | 3.0 | 3.0 | 3.0 | 3.0 |  |
| Lane Grp Cap (vph) | 1721 |  | 793 |  |  |  |  | 980 | 438 | 157 | 1309 |  |
| v/s Ratio Prot |  |  |  |  |  |  |  | c0.20 |  | 0.01 | c0.19 |  |
| v/s Ratio Perm | 0.12 |  | c0.24 |  |  |  |  |  | 0.02 | 0.07 |  |  |
| v/c Ratio | 0.25 |  | 0.48 |  |  |  |  | 0.73 | 0.08 | 0.21 | 0.51 |  |
| Uniform Delay, d1 | 9.9 |  | 11.4 |  |  |  |  | 22.9 | 18.7 | 15.5 | 17.1 |  |
| Progression Factor | 1.00 |  | 1.00 |  |  |  |  | 1.00 | 1.00 | 0.36 | 0.59 |  |
| Incremental Delay, d2 | 0.3 |  | 2.1 |  |  |  |  | 2.8 | 0.1 | 0.6 | 0.3 |  |
| Delay (s) | 10.3 |  | 13.5 |  |  |  |  | 25.8 | 18.8 | 6.2 | 10.3 |  |
| Level of Service | B |  | B |  |  |  |  | C | B | A | B |  |
| Approach Delay (s) |  | 12.0 |  |  | 0.0 |  |  | 24.7 |  |  | 10.1 |  |
| Approach LOS |  | B |  |  | A |  |  | C |  |  | B |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 2000 Control Delay |  |  | 15.9 |  | CM 2000 | Level of S | ervice |  | B |  |  |  |
| HCM 2000 Volume to Capacity ratioActuated Cycle Length (s) |  |  | 0.58 |  |  |  |  |  |  |  |  |  |
|  |  |  | 70.0 |  | Sum of los | time (s) |  |  | 13.5 |  |  |  |
| Intersection Capacity Utilization |  |  | 91.4\% | ICU Level of Service |  |  |  |  | F |  |  |  |
| Analysis Period (min) |  |  | 15 |  |  |  |  |  |  |  |  |

c Critical Lane Group


| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | ${ }^{7}$ | 个4 | F＇ | ${ }^{4}$ | 个个 | F | \％ | $\uparrow$ | F | \％ | $\uparrow$ | F |
| Traffic Volume（veh／h） | 75 | 485 | 85 | 150 | 1090 | 20 | 135 | 10 | 105 | 125 | 10 | 100 |
| Future Volume（veh／h） | 75 | 485 | 85 | 150 | 1090 | 20 | 135 | 10 | 105 | 125 | 10 | 100 |
| Initial $Q(Q b)$ ，veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus，Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow，veh／h／ln | 1900 | 1737 | 1530 | 1900 | 1781 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate，veh／h | 82 | 527 | 92 | 163 | 1185 | 22 | 147 | 11 | 114 | 136 | 11 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh，\％ | 0 | 11 | 25 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap，veh／h | 206 | 981 | 385 | 310 | 1136 | 541 | 624 | 530 | 449 | 585 | 530 |  |
| Arrive On Green | 0.06 | 0.30 | 0.30 | 0.03 | 0.11 | 0.11 | 0.07 | 0.28 | 0.28 | 0.07 | 0.28 | 0.00 |
| Sat Flow，veh／h | 1810 | 3300 | 1296 | 1810 | 3385 | 1610 | 1810 | 1900 | 1610 | 1810 | 1900 | 1610 |
| Grp Volume（v），veh／h | 82 | 527 | 92 | 163 | 1185 | 22 | 147 | 11 | 114 | 136 | 11 | 0 |
| Grp Sat Flow（s），veh／h／n1 | 1810 | 1650 | 1296 | 1810 | 1692 | 1610 | 1810 | 1900 | 1610 | 1810 | 1900 | 1610 |
| Q Serve（g＿s），s | 0.0 | 9.3 | 3.8 | 4.9 | 23.5 | 0.6 | 4.0 | 0.3 | 3.8 | 3.7 | 0.3 | 0.0 |
| Cycle Q Clear（g＿c），s | 0.0 | 9.3 | 3.8 | 4.9 | 23.5 | 0.6 | 4.0 | 0.3 | 3.8 | 3.7 | 0.3 | 0.0 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Lane Grp Cap（c），veh／h | 206 | 981 | 385 | 310 | 1136 | 541 | 624 | 530 | 449 | 585 | 530 |  |
| V／C Ratio（X） | 0.40 | 0.54 | 0.24 | 0.53 | 1.04 | 0.04 | 0.24 | 0.02 | 0.25 | 0.23 | 0.02 |  |
| Avail Cap（c＿a），veh／h | 232 | 981 | 385 | 388 | 1136 | 541 | 624 | 530 | 449 | 585 | 530 |  |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter（l） | 1.00 | 1.00 | 1.00 | 0.72 | 0.72 | 0.72 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay（d），s／veh | 31.1 | 20.6 | 18.6 | 21.4 | 31.1 | 10.3 | 16.1 | 18.3 | 19.6 | 16.0 | 18.3 | 0.0 |
| Incr Delay（d2），s／veh | 1.2 | 0.6 | 0.3 | 1.0 | 34.7 | 0.0 | 0.2 | 0.1 | 1.4 | 0.2 | 0.1 | 0.0 |
| Initial Q Delay（d3），s／veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \％ile BackOfQ（50\％），veh／ | ／lm 1.2 | 3.1 | 1.1 | 1.9 | 15.7 | 0.3 | 1.6 | 0.1 | 1.5 | 1.5 | 0.1 | 0.0 |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh | 32.4 | 21.2 | 18.9 | 22.4 | 65.8 | 10.3 | 16.3 | 18.4 | 21.0 | 16.2 | 18.4 | 0.0 |
| LnGrp LOS | C | C | B | C | F | B | B | B | C | B | B |  |
| Approach Vol，veh／h |  | 701 |  |  | 1370 |  |  | 272 |  |  | 147 | A |
| Approach Delay，s／veh |  | 22.2 |  |  | 59.8 |  |  | 18.3 |  |  | 16.3 |  |
| Approach LOS |  | C |  |  | E |  |  | B |  |  | B |  |


| Timer－Assigned Phs | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Phs Duration（ $\mathrm{G}+\mathrm{Y}+\mathrm{Rc}$ ），$\$ 1.2$ | 25.3 | 9.5 | 24.0 | 8.5 | 28.0 | 9.5 | 24.0 |
| Change Period（ $Y+R \mathrm{Cc}$ ，s 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting（Gmax），${ }^{\text {B }}$ | 18.8 | 5.0 | 18.5 | 5.0 | 23.5 | 5.0 | 18.5 |
| Max Q Clear Time（g＿c +1 19， $\mathrm{Sb}_{5}$ | 11.3 | 6.0 | 2.3 | 2.0 | 25.5 | 5.7 | 5.8 |
| Green Ext Time（p＿c），s 0.1 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | ． |

## Intersection Summary

|  |  |
| :--- | ---: |
| HCM 6th Ctrl Delay | 42.1 |
| HCM 6th LOS | D |

## Notes

Unsignalized Delay for［SBR］is excluded from calculations of the approach delay and intersection delay．

| Movement EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations \% | 44 | 7 | \% | 革 | 7 | \% 7 | $\uparrow$ |  | ${ }^{*}$ | $\uparrow$ |  |
| Traffic Volume (veh/h) 50 | 510 | 155 | 125 | 960 | 55 | 280 | 5 | 255 | 20 | 5 | 20 |
| Future Volume (veh/h) 50 | 510 | 155 | 125 | 960 | 55 | 280 | 5 | 255 | 20 | 5 | 20 |
| Initial Q $(\mathrm{Qb})$, veh 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 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 54 | 554 | 168 | 136 | 1043 | 60 | 304 | 5 | 277 | 22 | 5 | 22 |
| Peak Hour Factor 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h 186 | 1132 | 505 | 404 | 1307 | 583 | 1109 | 9 | 474 | 316 | 78 | 342 |
| Arrive On Green 0.09 | 0.64 | 0.64 | 0.03 | 0.12 | 0.12 | 0.07 | 0.30 | 0.30 | 0.02 | 0.26 | 0.26 |
| Sat Flow, veh/h 1781 | 3554 | 1585 | 1781 | 3554 | 1585 | 3456 | 28 | 1561 | 1781 | 302 | 1329 |
| Grp Volume(v), veh/h 54 | 554 | 168 | 136 | 1043 | 60 | 304 | 0 | 282 | 22 | 0 | 27 |
| Grp Sat Flow(s),veh/h/ln1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1728 | 0 | 1589 | 1781 | 0 | 1631 |
| Q Serve(g_s), s $\quad 1.5$ | 5.8 | 2.4 | 0.0 | 20.0 | 2.4 | 4.5 | 0.0 | 10.5 | 0.6 | 0.0 | 0.9 |
| Cycle Q Clear(g_c), s 1.5 | 5.8 | 2.4 | 0.0 | 20.0 | 2.4 | 4.5 | 0.0 | 10.5 | 0.6 | 0.0 | 0.9 |
| Prop In Lane 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.98 | 1.00 |  | 0.81 |
| Lane Grp Cap(c), veh/h 186 | 1132 | 505 | 404 | 1307 | 583 | 1109 | 0 | 483 | 316 | 0 | 419 |
| V/C Ratio(X) 0.29 | 0.49 | 0.33 | 0.34 | 0.80 | 0.10 | 0.27 | 0.00 | 0.58 | 0.07 | 0.00 | 0.06 |
| Avail Cap(c_a), veh/h 230 | 1132 | 505 | 404 | 1307 | 583 | 1109 | 0 | 483 | 399 | 0 | 419 |
| HCM Platoon Ratio 2.00 | 2.00 | 2.00 | 0.33 | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) 0.94 | 0.94 | 0.94 | 0.83 | 0.83 | 0.83 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh 19.5 | 9.7 | 4.6 | 24.6 | 28.2 | 20.5 | 16.8 | 0.0 | 20.6 | 18.7 | 0.0 | 19.6 |
| Incr Delay (d2), s/veh 0.8 | 1.4 | 1.7 | 0.4 | 4.3 | 0.3 | 0.1 | 0.0 | 5.1 | 0.1 | 0.0 | 0.3 |
| Initial Q Delay(d3),s/veh 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \%ile BackOfQ(50\%),veh/lm0. 6 | 1.7 | 1.2 | 1.9 | 9.9 | 0.9 | 1.7 | 0.0 | 4.3 | 0.3 | 0.0 | 0.4 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay(d),s/veh 20.3 | 11.1 | 6.3 | 25.0 | 32.5 | 20.8 | 16.9 | 0.0 | 25.7 | 18.7 | 0.0 | 19.9 |
| LnGrp LOS C | B | A | C | C | C | B | A | C | B | A | B |
| Approach Vol, veh/h | 776 |  |  | 1239 |  |  | 586 |  |  | 49 |  |
| Approach Delay, s/veh | 10.7 |  |  | 31.1 |  |  | 21.1 |  |  | 19.4 |  |
| Approach LOS | B |  |  | C |  |  | C |  |  | B |  |


| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Phs Duration (G+Y+Rc), $\$ 1.2$ | 26.8 | 9.5 | 22.5 | 7.8 | 30.2 | 6.2 | 25.8 |  |
| Change Period (Y+Rc), s 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |  |
| Max Green Setting (Gmax象.z | 22.3 | 5.0 | 18.0 | 5.0 | 24.0 | 5.0 | 18.0 |  |
| Max Q Clear Time (g_c+142,@s | 7.8 | 6.5 | 2.9 | 3.5 | 22.0 | 2.6 | 12.5 |  |
| Green Ext Time (p_c), s | 0.1 | 3.2 | 0.0 | 0.1 | 0.0 | 1.2 | 0.0 | 0.8 |

Intersection Summary
HCM 6th Ctrl Delay 22.7

HCM 6th LOS

|  |  | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | SBR

Unsig. Movement Delay, s/veh

| LnGrp Delay(d),s/veh | 24.2 | 12.8 | 12.1 | 22.0 | 25.2 | 10.7 | 16.0 | 16.7 | 17.4 | 17.7 | 22.7 | 24.4 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| LnGrp LOS | C | B | B | C | C | B | B | B | B | B | C | C |
| Approach Vol, veh/h | 853 |  |  | 831 |  |  | 516 |  | 706 |  |  |  |
| Approach Delay, s/veh | 13.3 |  |  | 24.1 |  | 16.5 |  | 23.1 |  |  |  |  |
| Approach LOS |  | B |  |  | C |  |  | B |  | C |  |  |


| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Phs Duration (G+Y+Rc), s8.7 | 26.0 | 12.9 | 22.5 | 9.6 | 25.0 | 7.6 | 27.8 |  |
| Change Period (Y+Rc), s 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |  |
| Max Green Setting (Gmax5.,5 | 20.0 | 8.5 | 18.0 | 5.0 | 20.5 | 5.0 | 21.5 |  |
| Max Q Clear Time (g_c $\mathbf{I} 14$, , | 9.3 | 8.5 | 11.0 | 2.0 | 14.1 | 3.4 | 5.1 |  |
| Green Ext Time (p_c), s | 0.0 | 3.1 | 0.0 | 2.0 | 0.0 | 2.3 | 0.0 | 1.2 |

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

## $\rightarrow \rightarrow \leftarrow \downarrow \downarrow$

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | ${ }^{*}$ | 个4 | 个4 | ${ }^{7}$ | \% | F |
| Traffic Volume (veh/h) | 50 | 660 | 605 | 20 | 20 | 160 |
| Future Volume (veh/h) | 50 | 660 | 605 | 20 | 20 | 160 |
| Initial $Q(Q b)$, veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  |  | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 0.90 | 1.00 | 1.00 |
| Work Zone On Approach |  | No | No |  | No |  |
| Adj Sat Flow, veh/h/ln | 1900 | 1752 | 1737 | 1218 | 1707 | 1900 |
| Adj Flow Rate, veh/h | 54 | 717 | 658 | 22 | 22 | 174 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% | 0 | 10 | 11 | 46 | 13 | 0 |
| Cap, veh/h | 469 | 1800 | 1124 | 316 | 289 | 286 |
| Arrive On Green | 0.06 | 0.54 | 0.34 | 0.34 | 0.18 | 0.18 |
| Sat Flow, veh/h | 1810 | 3416 | 3387 | 929 | 1626 | 1610 |
| Grp Volume(v), veh/h | 54 | 717 | 658 | 22 | 22 | 174 |
| Grp Sat Flow(s),veh/h/ln 1810 |  | 1664 | 1650 | 929 | 1626 | 1610 |
| Q Serve(g_s), s | 0.5 | 4.0 | 5.3 | 0.5 | 0.4 | 3.2 |
| Cycle Q Clear (g_c), s | 0.5 | 4.0 | 5.3 | 0.5 | 0.4 | 3.2 |
| Prop In Lane | 1.00 |  |  | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h 4 | 469 | 1800 | 1124 | 316 | 289 | 286 |
| V/C Ratio(X) 0 | 0.12 | 0.40 | 0.59 | 0.07 | 0.08 | 0.61 |
| Avail Cap(c_a), veh/h 6 | 673 | 3591 | 2528 | 712 | 1093 | 1083 |
| HCM Platoon Ratio 1 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) 1 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh 5 | 5.6 | 4.3 | 8.7 | 7.1 | 11.0 | 12.1 |
| Incr Delay (d2), s/veh | 0.1 | 0.1 | 0.5 | 0.1 | 0.1 | 2.1 |
| Initial Q Delay(d3),s/veh 0.0 |  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \%ile BackOfQ ( $50 \%$ ),veh/InD. 1 |  | 0.1 | 0.8 | 0.0 | 0.1 | 3.0 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |
| LnGrp Delay(d),s/veh | 5.8 | 4.4 | 9.2 | 7.2 | 11.1 | 14.2 |
| LnGrp LOS | A | A | A | A | B | B |
| Approach Vol, veh/h |  | 771 | 680 |  | 196 |  |
| Approach Delay, s/veh |  | 4.5 | 9.1 |  | 13.9 |  |
| Approach LOS |  | A | A |  | B |  |
| Timer - Assigned Phs |  | 2 |  | 4 | 5 | 6 |
| Phs Duration ( $\mathrm{G}+\mathrm{Y}+\mathrm{Rc}$ ), s |  | 21.8 |  | 10.2 | 6.4 | 15.4 |
| Change Period ( $\mathrm{Y}+\mathrm{Rc}$ ), s |  | 4.5 |  | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s |  | 34.5 |  | 21.5 | 5.5 | 24.5 |
| Max Q Clear Time (g_c+11), s |  | 6.0 |  | 5.2 | 2.5 | 7.3 |
| Green Ext Time (p_c), s |  | 4.5 |  | 0.5 | 0.0 | 3.6 |

## Intersection Summary

| HCM 6th Ctrl Delay | 7.5 |
| :--- | ---: |
| HCM 6th LOS | A |

Notes
User approved pedestrian interval to be less than phase max green.


| Movement EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | 44 | 7 | ${ }_{1}$ | 44 | 7 | ${ }^{*}$ | $\uparrow$ |  | \% | $\uparrow$ |  |
| Traffic Volume (veh/h) 10 | 610 | 40 | 60 | 500 | 5 | 45 | 30 | 90 | 5 | 30 | 10 |
| Future Volume (veh/h) 10 | 610 | 40 | 60 | 500 | 5 | 45 | 30 | 90 | 5 | 30 | 10 |
| Initial Q $(\mathrm{Qb})$, veh 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow, veh/h/ln 1900 | 1752 | 1500 | 1841 | 1722 | 1900 | 1500 | 1811 | 1811 | 1900 | 1559 | 1559 |
| Adj Flow Rate, veh/h 11 | 663 | 43 | 65 | 543 | 5 | 49 | 33 | 98 | 5 | 33 | 11 |
| Peak Hour Factor 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% 0 | 10 | 27 | 4 | 12 | 0 | 27 | 6 | 6 | 0 | 23 | 23 |
| Cap, veh/h 414 | 1057 | 404 | 397 | 1202 | 591 | 357 | 68 | 201 | 310 | 138 | 46 |
| Arrive On Green 0.01 | 0.32 | 0.32 | 0.06 | 0.37 | 0.37 | 0.05 | 0.17 | 0.17 | 0.01 | 0.12 | 0.12 |
| Sat Flow, veh/h 1810 | 3328 | 1271 | 1753 | 3272 | 1610 | 1428 | 402 | 1194 | 1810 | 1119 | 373 |
| Grp Volume(v), veh/h 11 | 663 | 43 | 65 | 543 | 5 | 49 | 0 | 131 | 5 | 0 | 44 |
| Grp Sat Flow(s),veh/h/ln1810 | 1664 | 1271 | 1753 | 1636 | 1610 | 1428 | 0 | 1596 | 1810 | 0 | 1492 |
| Q Serve(g_s), s 0.2 | 6.9 | 1.0 | 1.0 | 5.1 | 0.1 | 1.2 | 0.0 | 3.0 | 0.1 | 0.0 | 1.1 |
| Cycle Q Clear(g_c), s 0.2 | 6.9 | 1.0 | 1.0 | 5.1 | 0.1 | 1.2 | 0.0 | 3.0 | 0.1 | 0.0 | 1.1 |
| Prop In Lane 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.75 | 1.00 |  | 0.25 |
| Lane Grp Cap(c), veh/h 414 | 1057 | 404 | 397 | 1202 | 591 | 357 | 0 | 269 | 310 | 0 | 184 |
| V/C Ratio(X) 0.03 | 0.63 | 0.11 | 0.16 | 0.45 | 0.01 | 0.14 | 0.00 | 0.49 | 0.02 | 0.00 | 0.24 |
| Avail Cap(c_a), veh/h 633 | 2498 | 954 | 566 | 2537 | 1248 | 476 | 0 | 766 | 543 | 0 | 716 |
| HCM Platoon Ratio 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) $\quad 1.00$ | 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 9.2 | 11.8 | 9.8 | 8.7 | 9.8 | 8.2 | 14.3 | 0.0 | 15.3 | 15.4 | 0.0 | 16.1 |
| Incr Delay (d2), s/veh 0.0 | 0.6 | 0.1 | 0.2 | 0.3 | 0.0 | 0.2 | 0.0 | 1.4 | 0.0 | 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/Im0.0 | 1.6 | 0.2 | 0.2 | 1.1 | 0.0 | 0.3 | 0.0 | 0.9 | 0.0 | 0.0 | 0.3 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay(d), s/veh 9.3 | 12.4 | 9.9 | 8.9 | 10.0 | 8.2 | 14.5 | 0.0 | 16.7 | 15.5 | 0.0 | 16.8 |
| LnGrp LOS A | B | A | A | B | A | B | A | B | B | A | B |
| Approach Vol, veh/h | 717 |  |  | 613 |  |  | 180 |  |  | 49 |  |
| Approach Delay, s/veh | 12.2 |  |  | 9.9 |  |  | 16.1 |  |  | 16.6 |  |
| Approach LOS | B |  |  | A |  |  | B |  |  | B |  |
| Timer - Assigned Phs 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |  |  |  |
| Phs Duration (G+Y+Rc), s7.1 | 17.4 | 6.6 | 9.5 | 5.1 | 19.4 | 4.8 | 11.3 |  |  |  |  |
| Change Period (Y+Rc), s 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |  |  |  |  |
| Max Green Setting (Gmax $¢ .5$ | 30.5 | 5.5 | 19.5 | 5.5 | 31.5 | 5.5 | 19.5 |  |  |  |  |
| Max Q Clear Time (g_c+113,@ | 8.9 | 3.2 | 3.1 | 2.2 | 7.1 | 2.1 | 5.0 |  |  |  |  |
| Green Ext Time (p_c), s 0.0 | 4.0 | 0.0 | 0.1 | 0.0 | 3.2 | 0.0 | 0.5 |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th Ctrl Delay 11.9 |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th LOS |  | B |  |  |  |  |  |  |  |  |  |

## F.4. 2040 PM with Recommended PEL Laneage and ACP Implemented

| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | ${ }^{*}$ | 个4 | F | \％ | 个4 | 「 | \％ | $\hat{F}$ |  | ${ }_{1}$ | $\hat{p}$ |  |
| Traffic Volume（veh／h） | 30 | 990 | 15 | 110 | 885 | 40 | 15 | 10 | 95 | 30 | 10 | 30 |
| Future Volume（veh／h） | 30 | 990 | 15 | 110 | 885 | 40 | 15 | 10 | 95 | 30 | 10 | 30 |
| Initial $Q(Q b)$ ，veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus，Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow，veh／h／ln | 1870 | 1826 | 1870 | 1870 | 1826 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate，veh／h | 33 | 1076 | 16 | 120 | 962 | 43 | 16 | 11 | 103 | 33 | 11 | 33 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh，\％ | 2 | 5 | 2 | 2 | 5 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap，veh／h | 267 | 1313 | 600 | 428 | 2210 | 1010 | 293 | 22 | 205 | 230 | 58 | 175 |
| Arrive On Green | 0.38 | 0.38 | 0.38 | 0.15 | 0.64 | 0.64 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 | 0.14 |
| Sat Flow，veh／h | 561 | 3469 | 1585 | 1781 | 3469 | 1585 | 1362 | 155 | 1454 | 1279 | 412 | 1236 |
| Grp Volume（v），veh／h | 33 | 1076 | 16 | 120 | 962 | 43 | 16 | 0 | 114 | 33 | 0 | 44 |
| Grp Sat Flow（s），veh／h／n | 561 | 1735 | 1585 | 1781 | 1735 | 1585 | 1362 | 0 | 1609 | 1279 | 0 | 1648 |
| Q Serve（g＿s），s | 2.6 | 15.1 | 0.3 | 0.0 | 7.5 | 0.5 | 0.6 | 0.0 | 3.5 | 1.3 | 0.0 | 1.3 |
| Cycle Q Clear（g＿c），s | 10.1 | 15.1 | 0.3 | 0.0 | 7.5 | 0.5 | 1.8 | 0.0 | 3.5 | 4.9 | 0.0 | 1.3 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.90 | 1.00 |  | 0.75 |
| Lane Grp Cap（c），veh／h | 267 | 1313 | 600 | 428 | 2210 | 1010 | 293 | 0 | 227 | 230 | 0 | 233 |
| V／C Ratio（X） | 0.12 | 0.82 | 0.03 | 0.28 | 0.44 | 0.04 | 0.05 | 0.00 | 0.50 | 0.14 | 0.00 | 0.19 |
| Avail Cap（c＿a），veh／h | 283 | 1410 | 644 | 428 | 2244 | 1025 | 302 | 0 | 238 | 238 | 0 | 244 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter（l） | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay（d），s／veh | 16.6 | 15.2 | 10.6 | 19.2 | 4.9 | 3.7 | 21.3 | 0.0 | 21.5 | 23.7 | 0.0 | 20.5 |
| Incr Delay（d2），s／veh | 0.3 | 4.0 | 0.0 | 0.4 | 0.2 | 0.0 | 0.1 | 0.0 | 2.4 | 0.4 | 0.0 | 0.6 |
| Initial Q Delay（d3），s／veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \％ile BackOfQ（50\％），veh／ln | 0.3 | 4.9 | 0.1 | 1.1 | 1.0 | 0.1 | 0.2 | 0.0 | 1.4 | 0.4 | 0.0 | 0.5 |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh | 16.9 | 19.2 | 10.6 | 19.6 | 5.1 | 3.7 | 21.4 | 0.0 | 23.9 | 24.1 | 0.0 | 21.1 |
| LnGrp LOS | B | B | B | B | A | A | C | A | C | C | A | C |
| Approach Vol，veh／h |  | 1125 |  |  | 1125 |  |  | 130 |  |  | 77 |  |
| Approach Delay，s／veh |  | 19.0 |  |  | 6.6 |  |  | 23.6 |  |  | 22.4 |  |
| Approach LOS |  | B |  |  | A |  |  | C |  |  | C |  |


| Timer - Assigned Phs | 1 | 2 | 4 | 6 | 8 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Phs Duration（G＋Y＋Rc），s | 14.0 | 26.5 | 13.6 | 40.5 | 13.6 |
| Change Period（Y＋Rc），s | 6.0 | $* 6$ | 6.0 | 6.0 | 6.0 |
| Max Green Setting（Gmax），s | 8.0 | $* 22$ | 8.0 | 35.0 | 8.0 |
| Max Q Clear Time（g＿c＋11），s | 2.0 | 17.1 | 6.9 | 9.5 | 5.5 |
| Green Ext Time（p＿c），s | 0.1 | 3.3 | 0.0 | 9.3 | 0.2 |

Intersection Summary
HCM 6th Ctrl Delay 13.7
HCM 6th LOS
B

## Notes

User approved pedestrian interval to be less than phase max green．
＊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 | \% | 个 $\uparrow$ | F | ${ }^{7}$ | 个4 | 7 | ${ }^{7}$ | $\uparrow$ | F | ${ }^{*}$ | $\hat{F}$ |  |
| Traffic Volume (veh/h) | 25 | 340 | 360 | 60 | 490 | 30 | 490 | 35 | 365 | 40 | 50 | 60 |
| Future Volume (veh/h) | 25 | 340 | 360 | 60 | 490 | 30 | 490 | 35 | 365 | 40 | 50 | 60 |
| Initial $Q(Q b)$, veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | . 00 | . 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 1 | 1710 | 1683 | 1683 | 1683 | 1657 | 1710 | 1617 | 1710 | 1617 | 1710 | 1710 | 1710 |
| Adj Flow Rate, veh/h | 27 | 370 | 0 | 65 | 533 | 33 | 560 | 0 | 0 | 43 | 54 | 65 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% | 0 | 2 | 2 | 2 | 4 | 0 | 7 | 0 | 7 | 0 | 0 | 0 |
| Cap, veh/h | 178 | 642 |  | 217 | 630 | 290 | 666 | 0 |  | 212 | 92 | 111 |
| Arrive On Green | 0.03 | 0.20 | 0.00 | 0.06 | 0.20 | 0.20 | 0.22 | 0.00 | 0.00 | 0.13 | 0.13 | 0.13 |
| Sat Flow, veh/h | 1629 | 3198 | 1427 | 1603 | 3148 | 1449 | 3079 | 0 | 1370 | 1629 | 707 | 850 |
| Grp Volume(v), veh/h | 27 | 370 | 0 | 65 | 533 | 33 | 560 | 0 | 0 | 43 | 0 | 119 |
| Grp Sat Flow(s),veh/h/nn | 1629 | 1599 | 1427 | 1603 | 1574 | 1449 | 1540 | 0 | 1370 | 1629 | 0 | 1557 |
| Q Serve(g_s), s | 0.0 | 5.9 | 0.0 | 2.0 | 9.2 | 1.1 | 9.9 | 0.0 | 0.0 | 1.3 | 0.0 | 4.1 |
| Cycle Q Clear (g_c), s | 0.0 | 5.9 | 0.0 | 2.0 | 9.2 | 1.1 | 9.9 | 0.0 | 0.0 | 1.3 | 0.0 | 4.1 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.55 |
| Lane Grp Cap(c), veh/h | 178 | 642 |  | 217 | 630 | 290 | 666 | 0 |  | 212 | 0 | 202 |
| V/C Ratio(X) | 0.15 | 0.58 |  | 0.30 | 0.85 | 0.11 | 0.84 | 0.00 |  | 0.20 | 0.00 | 0.59 |
| Avail Cap(c_a), veh/h | 272 | 648 |  | 268 | 638 | 294 | 706 | 0 |  | 230 | 0 | 220 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 26.7 | 20.5 | 0.0 | 21.3 | 21.8 | 18.6 | 21.3 | 0.0 | 0.0 | 22.1 | 0.0 | 23.2 |
| Incr Delay (d2), s/veh | 0.4 | 1.5 | 0.0 | 0.8 | 10.5 | 0.2 | 9.1 | 0.0 | 0.0 | 0.7 | 0.0 | 4.5 |
| 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/I | Ilm 0 | 1.9 | 0.0 | 0.7 | 3.7 | 0.3 | 3.8 | 0.0 | 0.0 | 0.5 | 0.0 | 1.7 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay(d),s/veh | 27.0 | 22.0 | 0.0 | 22.1 | 32.3 | 18.8 | 30.4 | 0.0 | 0.0 | 22.7 | 0.0 | 27.8 |
| LnGrp LOS | C | C |  | C | C | B | C | A |  | C | A | C |
| Approach Vol, veh/h |  | 397 | A |  | 631 |  |  | 560 | A |  | 162 |  |
| Approach Delay, s/veh |  | 22.4 |  |  | 30.6 |  |  | 30.4 |  |  | 26.4 |  |
| Approach LOS |  | C |  |  | C |  |  | C |  |  | C |  |


| Timer - Assigned Phs | 1 | 2 | 4 | 5 | 6 | 8 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Phs Duration (G+Y+Rc), s7.7 | 17.4 | 18.3 | 7.7 | 17.4 | 13.4 |  |
| Change Period (Y+Rc), s 4.5 | 6.0 | 6.0 | 6.0 | $* 6$ | 6.0 |  |
| Max Green Setting (Gmax5., | 11.5 | 13.0 | 5.0 | $* 12$ | 8.0 |  |
| Max Q Clear Time (g_c $\mathbf{1 4} 14$, ,s | 7.9 | 11.9 | 2.0 | 11.2 | 6.1 |  |
| Green Ext Time (p_c), s | 0.0 | 0.9 | 0.4 | 0.0 | 0.1 | 0.2 |

## Intersection Summary

HCM 6th Ctrl Delay 28.3

## 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.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

## $\stackrel{\rightarrow}{*} \leftarrow 4 \downarrow$

| Movement | EBL | EB | WB | WB | SB | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | \% | 个4 | 个 $\uparrow$ | F | ${ }_{1}$ | F |
| Traffic Volume (veh/h) | 30 | 715 | 570 | 10 | 50 | 20 |
| Future Volume (veh/h) | 30 | 715 | 570 | 10 | 50 | 20 |
| Initial $Q(Q b)$, veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  |  | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No | No |  | No |  |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 187 | 1870 | 870 |
| Adj Flow Rate, veh/h | 33 | 777 | 620 | 11 | 54 | 22 |
| 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 | 321 | 1132 | 1132 | 505 | 809 | 720 |
| rive On Green | 0.32 | 0.32 | 0.3 | 0.3 | 0.45 | . 45 |
| Sat Flow, veh/h | 796 | 3647 | 3647 | 1585 | 1781 | 1585 |
| Grp Volume(v), veh/h | 33 | 777 | 620 | 11 | 54 | 22 |
| Grp Sat Flow(s),veh/h/n | 796 | 1777 | 1777 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 1.4 | 7.6 | 5.7 | 0.2 | 0.7 | 0.3 |
| Cycle Q Clear(g_c), s | 7.1 | 7.6 | 5.7 | 0.2 | 0.7 | 0.3 |
| Prop In Lane | 1.00 |  |  | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 321 | 1132 | 1132 | 505 | 809 | 720 |
| V/C Ratio(X) | 0.10 | 0.69 | 0.55 | 0.02 | 0.07 | 0.03 |
| Avail Cap(c_a), veh/h | 429 | 1614 | 1614 | 720 | 809 | 720 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.0 | 1.00 | . 00 |
| Uniform Delay (d), s/veh | 14.1 | 11.8 | 11.1 | 9.3 | 6.1 | 6.0 |
| Incr Delay (d2), s/veh | 0.1 | 0.7 | 0.4 | 0.0 | 0.2 | 0.1 |
| Initial Q Delay(d3),s/veh |  | 0.0 | 0 | 0 | . 0 | 0.0 |
| \%ile BackOfQ(50\%),veh/ | /lmp. 2 | 1.8 | 1.4 | 0.0 | 0.2 |  |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |
| LnGrp Delay(d),s/veh | 14.2 | 12.5 | 11.6 | 9.3 | 6.2 | 6.1 |
| LnGrp LOS | B | B | B | A | A | A |
| Approach Vol, veh/h |  | 810 | 631 |  | 76 |  |
| Approach Delay, s/veh |  | 12.6 | 11.5 |  | 6.2 |  |
| Approach LOS |  | B | B |  | A |  |


| Timer - Assigned Phs | 2 | 4 | 6 |
| :--- | ---: | ---: | ---: |
| Phs Duration (G+Y+Rc), s | 17.1 | 22.5 | 17.1 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 18.0 | 18.0 | 18.0 |
| Max Q Clear Time (g_c+11), s | 9.6 | 2.7 | 7.7 |
| Green Ext Time (p_c), s | 3.1 | 0.1 | 2.6 |


| Intersection Summary |  |
| :--- | :---: |
| HCM 6th Ctrl Delay | 11.8 |
| HCM 6th LOS | B |

HCM 6th Signalized Intersection Summary
4: 66th St \& SH 66

| Movement E | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | ${ }^{*}$ | $\uparrow$ | F' | \% | $\uparrow$ | F | \% | $\hat{\beta}$ |  | ${ }^{4}$ | $\hat{\beta}$ |  |
| Traffic Volume (veh/h) | 30 | 900 | 20 | 25 | 540 | 10 | 15 | 5 | 15 | 20 | 0 | 15 |
| Future Volume (veh/h) | 30 | 900 | 20 | 25 | 540 | 10 | 15 | 5 | 15 | 20 | 0 | 15 |
| Initial $Q(Q b)$, veh | 0 | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) 1 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj 1 | 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 18 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 33 | 978 | 22 | 27 | 587 | 11 | 16 | 5 | 16 | 22 | 0 | 16 |
| Peak Hour Factor 0 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 451 | 1067 | 904 | 198 | 1058 | 897 | 401 | 90 | 287 | 397 | 0 | 364 |
| Arrive On Green 0 | 0.03 | 0.57 | 0.57 | 0.03 | 0.57 | 0.57 | 0.23 | 0.23 | 0.23 | 0.23 | 0.00 | 0.23 |
| Sat Flow, veh/h 17 | 1781 | 1870 | 1585 | 1781 | 1870 | 1585 | 1397 | 392 | 1253 | 1391 | 0 | 1585 |
| Grp Volume(v), veh/h | 33 | 978 | 22 | 27 | 587 | 11 | 16 | 0 | 21 | 22 | 0 | 16 |
| Grp Sat Flow(s),veh/h/ln17 | 1781 | 1870 | 1585 | 1781 | 1870 | 1585 | 1397 | 0 | 1645 | 1391 | 0 | 1585 |
| Q Serve(g_s), s | 0.6 | 37.0 | 0.5 | 0.5 | 15.6 | 0.2 | 0.7 | 0.0 | 0.8 | 1.0 | 0.0 | 0.6 |
| Cycle Q Clear(g_c), s | 0.6 | 37.0 | 0.5 | 0.5 | 15.6 | 0.2 | 1.3 | 0.0 | 0.8 | 1.8 | 0.0 | 0.6 |
| Prop In Lane $\quad 1$ | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.76 | 1.00 |  | 1.00 |
| Lane Grp Cap(c), veh/h | 451 | 1067 | 904 | 198 | 1058 | 897 | 401 | 0 | 377 | 397 | 0 | 364 |
| V/C Ratio(X) 0.07 | 0.07 | 0.92 | 0.02 | 0.14 | 0.55 | 0.01 | 0.04 | 0.00 | 0.06 | 0.06 | 0.00 | 0.04 |
| Avail Cap(c_a), veh/h | 507 | 1275 | 1081 | 261 | 1275 | 1081 | 401 | 0 | 377 | 397 | 0 | 364 |
| HCM Platoon Ratio 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) 1 | 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 | 8.1 | 15.2 | 7.3 | 15.5 | 10.8 | 7.4 | 24.1 | 0.0 | 23.6 | 24.3 | 0.0 | 23.5 |
| Incr Delay (d2), s/veh | 0.1 | 9.4 | 0.0 | 0.3 | 0.5 | 0.0 | 0.2 | 0.0 | 0.3 | 0.3 | 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/Ir | Im0. 2 | 13.8 | 0.1 | 0.2 | 4.8 | 0.1 | 0.2 | 0.0 | 0.3 | 0.3 | 0.0 | 0.2 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay(d),s/veh | 8.1 | 24.6 | 7.4 | 15.8 | 11.2 | 7.5 | 24.2 | 0.0 | 23.9 | 24.6 | 0.0 | 23.8 |
| LnGrp LOS | A | C | A | B | B | A | C | A | C | C | A | C |
| Approach Vol, veh/h |  | 1033 |  |  | 625 |  |  | 37 |  |  | 38 |  |
| Approach Delay, s/veh |  | 23.7 |  |  | 11.4 |  |  | 24.0 |  |  | 24.2 |  |
| Approach LOS |  | C |  |  | B |  |  | C |  |  | C |  |


|  |  |  | 4 | 5 | 6 | 8 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Timer - Assigned Phs | 1 | 2 | 22.5 | 7.1 | 48.9 | 22.5 |
| Phs Duration $(G+Y+R c)$, s6.7 | 49.2 | 4.5 | 4.5 | 4.5 | 4.5 |  |
| Change Period (Y+Rc), s 4.5 | 4.5 | 18.0 | 5.0 | 53.5 | 18.0 |  |
| Max Green Setting (Gmax5., | 53.5 | 3.8 | 2.6 | 17.6 | 3.3 |  |
| Max Q Clear Time (g_c $+1212,5$ | 39.0 | 0.1 | 0.0 | 3.5 | 0.1 |  |

Intersection Summary

| HCM 6th Ctrl Delay | 19.3 |
| :--- | ---: |
| HCM 6th LOS | B |



## Notes

User approved pedestrian interval to be less than phase max green.


| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0.6 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 个4 | $\mathbf{r}$ | 1 | 个4 |  | $\mathbf{F}$ |
| Traffic Vol, veh/h | 1175 | 20 | 60 | 565 | 0 | 30 |
| Future Vol, veh/h | 1175 | 20 | 60 | 565 | 0 | 30 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 250 | 250 | - | - | 0 |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1277 | 22 | 65 | 614 | 0 | 33 |


| Major/Minor | Major1 | Major2 |  | Minor1 |  |  |
| :--- | ---: | ---: | :--- | :--- | :--- | :--- |
| Conflicting Flow All | 0 | 0 | 1299 | 0 | - | 639 |
| $\quad$ Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | - | 4.14 | - | - | 6.94 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 2.22 | - | - | 3.32 |
| Pot Cap-1 Maneuver | - | - | 529 | - | 0 | 419 |
| $\quad$ Stage 1 | - | - | - | - | 0 | - |
| $\quad$ Stage 2 | - | - | - | - | 0 | - |
| Platoon blocked, \% | - | - |  | - |  |  |
| Mov Cap-1 Maneuver | - | - | 529 | - | - | 419 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |




| Major/Minor $\quad$ a | Major1 |  | Major2 |  | Minor2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 740 | 0 | - | 0 | - | 370 |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | 4.1 | - | - | - | - | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | 2.2 | - | - | - | - | 3.3 |
| Pot Cap-1 Maneuver | 876 | - | - | - | 0 | 633 |
| Stage 1 | - | - | - | - | 0 | - |
| Stage 2 | - | - | - | - | 0 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 876 | - | - | - | - | 633 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | SB |  |
| HCM Control Delay, s | 0.1 |  | 0 |  | 10.8 |  |
| HCM LOS |  |  |  |  | B |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | EBL | EBT | WBT | WBR SBLn1 |  |
| Capacity (veh/h) |  | 876 | - | - | - | 633 |
| HCM Lane V/C Ratio |  | 0.012 | - | - | - | 0.017 |
| HCM Control Delay (s) |  | 9.2 | - | - | - | 10.8 |
| HCM Lane LOS |  | A | - | - | - | B |
| HCM 95th \%tile Q(veh) |  | 0 | - | - | - | 0.1 |




| Movement | EBL | EBT | EBR2 | WBT | WBR | NBL | NBT | NBR2 | SBL2 | SBT | SBR | NWL2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | 5 | 44 | 7 | 44 | 7 | $7 \%$ | 4 | 7 | ${ }^{*}$ | 4 | 7 | 57 |
| Traffic Volume (vph) | 40 | 775 | 445 | 350 | 35 | 330 | 250 | 1585 | 75 | 130 | 10 | 920 |
| Future Volume (vph) | 40 | 775 | 445 | 350 | 35 | 330 | 250 | 1585 | 75 | 130 | 10 | 920 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 4.5 | 6.4 | 4.0 | 4.5 | 6.4 | 6.4 | 4.5 |
| Lane Util. Factor | 0.97 | 0.95 | 1.00 | 0.95 | 1.00 | 0.97 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 |
| Frt | 1.00 | 1.00 | 0.85 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.85 | 1.00 |
| Flt Protected | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 |
| Satd. Flow (prot) | 3502 | 3471 | 1599 | 3406 | 1615 | 3400 | 1863 | 1583 | 1805 | 1900 | 1583 | 3433 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 0.61 | 1.00 | 1.00 | 0.47 | 1.00 | 1.00 | 0.95 |
| Satd. Flow (perm) | 3502 | 3471 | 1599 | 3406 | 1615 | 2167 | 1863 | 1583 | 895 | 1900 | 1583 | 3433 |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 43 | 842 | 484 | 380 | 38 | 359 | 272 | 1723 | 82 | 141 | 11 | 1000 |
| RTOR Reduction (vph) | 0 | 0 | 280 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 9 | 0 |
| Lane Group Flow (vph) | 43 | 842 | 204 | 380 | 16 | 359 | 272 | 1723 | 82 | 141 | 2 | 1000 |
| Heavy Vehicles (\%) | 0\% | 4\% | 1\% | 6\% | 0\% | 3\% | 2\% | 2\% | 0\% | 0\% | 2\% | 2\% |
| Turn Type | Prot | NA | Perm | NA | Perm | pm+pt | NA | Free | pm+pt | NA | Perm | Prot |
| Protected Phases | 5 | 2 |  | 6 |  | 3 | 8 |  | 7 | 4 |  | 126 |
| Permitted Phases |  |  | 2 |  | 6 | 8 |  | Free | 4 |  | 4 |  |
| Actuated Green, G (s) | 4.3 | 31.1 | 31.1 | 34.1 | 34.1 | 24.1 | 18.4 | 83.1 | 20.7 | 16.7 | 16.7 | 44.1 |
| Effective Green, g (s) | 4.3 | 31.1 | 31.1 | 34.1 | 34.1 | 24.1 | 18.4 | 83.1 | 20.7 | 16.7 | 16.7 | 44.1 |
| Actuated g/C Ratio | 0.05 | 0.37 | 0.37 | 0.41 | 0.41 | 0.29 | 0.22 | 1.00 | 0.25 | 0.20 | 0.20 | 0.53 |
| Clearance Time (s) | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 4.5 | 6.4 |  | 4.5 | 6.4 | 6.4 |  |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 4.0 |  | 3.0 | 4.0 | 4.0 |  |
| Lane Grp Cap (vph) | 181 | 1299 | 598 | 1397 | 662 | 713 | 412 | 1583 | 266 | 381 | 318 | 1821 |
| v/s Ratio Prot | 0.01 | 0.24 |  | 0.11 |  | 0.03 | 0.15 |  | 0.01 | 0.07 |  | 0.29 |
| v/s Ratio Perm |  |  | 0.13 |  | 0.01 | 0.11 |  | c1.09 | 0.06 |  | 0.00 |  |
| v/c Ratio | 0.24 | 0.65 | 0.34 | 0.27 | 0.02 | 0.50 | 0.66 | 1.09 | 0.31 | 0.37 | 0.01 | 0.55 |
| Uniform Delay, d1 | 37.8 | 21.5 | 18.6 | 16.3 | 14.6 | 23.7 | 29.5 | 41.5 | 24.6 | 28.7 | 26.6 | 12.9 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.99 |
| Incremental Delay, d2 | 0.7 | 1.1 | 0.3 | 0.1 | 0.0 | 0.6 | 4.3 | 50.8 | 0.7 | 0.8 | 0.0 | 0.3 |
| Delay (s) | 38.5 | 22.6 | 19.0 | 16.4 | 14.6 | 24.3 | 33.8 | 92.3 | 25.3 | 29.5 | 26.6 | 13.1 |
| Level of Service | D | C | B | B | B | C | C | F | C | C | C | B |
| Approach Delay (s) |  | 21.8 |  | 16.2 |  |  | 75.2 |  |  | 27.9 |  |  |
| Approach LOS |  | C |  | B |  |  | E |  |  | C |  |  |


| Intersection Summary |  |  | D |
| :--- | ---: | :--- | ---: |
| HCM 2000 Control Delay | 43.4 | HCM 2000 Level of Service |  |
| HCM 2000 Volume to Capacity ratio | 1.49 |  | 22.3 |
| Actuated Cycle Length (s) | 83.1 | Sum of lost time (s) | E |
| Intersection Capacity Utilization | $86.7 \%$ | ICU Level of Service |  |

Analysis Period (min)
15
C Critical Lane Group

c Critical Lane Group

| Intersection |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 0.5 |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |  |
| Lane Configurations |  | ¢ $\uparrow$ | F |  | 性 | F |  |  | 7 |  |  | F |  |
| Traffic Vol, veh/h | 0 | 2390 | 115 | 0 | 1385 | 5 | 0 | 0 | 50 | 0 | 0 |  |  |
| Future Vol, veh/h | 0 | 2390 | 115 | 0 | 1385 | 5 | 0 | 0 | 50 | 0 | 0 | 5 |  |
| Conflicting Peds, \#hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |  |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |  |
| Storage Length | - | - | 0 | - | - | 250 | - | - | 0 | - | - | 0 |  |
| Veh in Median Storage, \# | \# | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |  |
| Grade, \% | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |  |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |  |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  |
| Mvmt Flow | 0 | 2598 | 125 | 0 | 1505 | 5 | 0 | 0 | 54 | 0 | 0 | 5 |  |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | \% | 个4 | 7 | 97 | 个4 | F' | \% | $\uparrow$ | 7 | \% | $\uparrow$ | 7 |
| Traffic Volume (veh/h) | 5 | 2355 | 80 | 255 | 1350 | 15 | 55 | 15 | 205 | 25 | 20 | 10 |
| Future Volume (veh/h) | 5 | 2355 | 80 | 255 | 1350 | 15 | 55 | 15 | 205 | 25 | 20 | 10 |
| Initial $Q(Q b)$, veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow, veh/h/ln | 1870 | 1856 | 1900 | 1885 | 1856 | 1870 | 1900 | 1870 | 1885 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 5 | 2560 | 87 | 277 | 1467 | 16 | 60 | 16 | 0 | 27 | 22 | 11 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% | 2 | 3 | 0 | 1 | 3 | 2 | 0 | 2 | , |  | 2 | 2 |
| Cap, veh/h | 650 | 2613 | 1193 | 301 | 1696 | 763 | 157 | 100 |  | 139 | 65 | 55 |
| Arrive On Green | 0.32 | 0.74 | 0.74 | 0.06 | 0.48 | 0.48 | 0.04 | 0.05 | 0.00 | 0.02 | 0.03 | 0.03 |
| Sat Flow, veh/h | 1781 | 3526 | 1610 | 3483 | 3526 | 1585 | 1810 | 1870 | 1598 | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h | 5 | 2560 | 87 | 277 | 1467 | 16 | 60 | 16 | 0 | 27 | 22 | 11 |
| Grp Sat Flow(s),veh/h/n | 1781 | 1763 | 1610 | 1742 | 1763 | 1585 | 1810 | 1870 | 1598 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s | 0.0 | 98.8 | 2.1 | 7.2 | 53.2 | 0.6 | 4.6 | 1.2 | 0.0 | 2.1 | 1.7 | 0.6 |
| Cycle Q Clear(g_c), s | 0.0 | 98.8 | 2.1 | 7.2 | 53.2 | 0.6 | 4.6 | 1.2 | 0.0 | 2.1 | 1.7 | 0.6 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Lane Grp Cap(c), veh/h | 650 | 2613 | 1193 | 301 | 1696 | 763 | 157 | 100 |  | 139 | 65 | 55 |
| V/C Ratio(X) | 0.01 | 0.98 | 0.07 | 0.92 | 0.86 | 0.02 | 0.38 | 0.16 |  | 0.19 | 0.34 | 0.20 |
| Avail Cap(c_a), veh/h | 650 | 2621 | 1197 | 301 | 2702 | 1215 | 163 | 152 |  | 160 | 134 | 113 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 25.0 | 17.6 | 5.1 | 38.1 | 33.2 | 13.6 | 63.4 | 65.1 | 0.0 | 64.9 | 67.8 | 24.8 |
| Incr Delay (d2), s/veh | 0.0 | 13.2 | 0.0 | 32.0 | 1.9 | 0.0 | 1.5 | 0.7 | 0.0 | 0.7 | 3.0 | 1.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \%ile BackOfQ (50\%),veh/ln | 0.1 | 34.5 | 0.6 | 4.2 | 21.4 | 0.3 | 2.2 | 0.6 | 0.0 | 1.0 | 0.8 | 0.4 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay (d),s/veh | 25.0 | 30.8 | 5.1 | 70.1 | 35.0 | 13.7 | 64.9 | 65.8 | 0.0 | 65.5 | 70.9 | 26.6 |
| LnGrp LOS | C | C | A | E | D | B | E | E |  | E | E | C |
| Approach Vol, veh/h |  | 2652 |  |  | 1760 |  |  | 76 | A |  | 60 |  |
| Approach Delay, s/veh |  | 29.9 |  |  | 40.4 |  |  | 65.1 |  |  | 60.3 |  |
| Approach LOS |  | C |  |  | D |  |  | E |  |  | E |  |


| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Phs Duration $(G+Y+R c), s$ | 7.8 | 12.2 | 12.8 | 111.1 | 10.5 | 9.5 | 50.2 | 73.7 |
| Change Period $(\mathrm{Y}+\mathrm{Rc})$, s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 5.0 | 11.7 | 8.3 | 107.0 | 6.4 | 10.3 | 5.0 | 110.3 |
| Max Q Clear Time (g_c+11), s | 4.1 | 3.2 | 9.2 | 100.8 | 6.6 | 3.7 | 2.0 | 55.2 |
| Green Ext Time (p_c), s | 0.0 | 0.0 | 0.0 | 5.9 | 0.0 | 0.0 | 0.0 | 14.0 |

Intersection Summary

| HCM 6th Ctrl Delay | 34.9 |
| :--- | ---: |
| HCM 6th LOS | C |

## Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



| Approach | EB | WB | NB | SB |
| :--- | :---: | :---: | ---: | ---: |
| HCM Control Delay, s | 0.1 | 0.9 | $\$ 348.3$ | 19.5 |
| HCM LOS |  |  | F | C |


| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR SBLn1 |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Capacity (veh/h) | 138 | 392 | - | -138 | - | -334 |  |  |
| HCM Lane V/C Ratio | 1.575 | 0.055 | - | -0.276 | - | -0.26 |  |  |
| HCM Control Delay (s) | $\$ 348.3$ | 14.7 | - | -40.7 | - | -19.5 |  |  |
| HCM Lane LOS | F | B | - | - | E | - | - | C |
| HCM 95th \%tile Q(veh) | 15.3 | 0.2 | - | - | 1.1 | - | - | 1 |

## Notes

$\sim$ : Volume exceeds capacity $\$$ : Delay exceeds $300 \mathrm{~s} \quad+$ : Computation Not Defined $\quad$ : All major volume in platoon

## US287/SH66 DLT

Nodes






c Critical Lane Group

c Critical Lane Group

c Critical Lane Group


C Critical Lane Group


| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | \% | 性 | F | \% | 性 | F | \% | $\hat{F}$ |  | 7 | $\uparrow$ |  |
| Traffic Volume (veh/h) | 25 | 1565 | 55 | 90 | 1145 | 60 | 5 | 5 | 45 | 40 | 5 | 20 |
| Future Volume (veh/h) | 25 | 1565 | 55 | 90 | 1145 | 60 | 5 | 5 | 45 | 40 | 5 | 20 |
| Initial $Q(Q b)$, veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow, veh/h/ln 1 | 1900 | 1856 | 1648 | 1767 | 1826 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 27 | 1701 | 60 | 98 | 1245 | 65 | 5 | 5 | 49 | 43 | 5 | 22 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% | 0 | 3 | 17 | 9 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 478 | 2018 | 799 | 211 | 1590 | 738 | 201 | 9 | 88 | 217 | 29 | 126 |
| Arrive On Green | 0.18 | 0.57 | 0.57 | 0.06 | 0.46 | 0.46 | 0.01 | 0.06 | 0.06 | 0.04 | 0.09 | 0.09 |
| Sat Flow, veh/h 181 | 1810 | 3526 | 1397 | 1682 | 3469 | 1610 | 1810 | 151 | 1482 | 1810 | 307 | 1350 |
| Grp Volume(v), veh/h | 27 | 1701 | 60 | 98 | 1245 | 65 | 5 | 0 | 54 | 43 | 0 | 27 |
| Grp Sat Flow(s),veh/h/ln1 | 1810 | 1763 | 1397 | 1682 | 1735 | 1610 | 1810 | 0 | 1633 | 1810 | 0 | 1657 |
| Q Serve(g_s), s | 0.0 | 27.0 | 1.3 | 2.4 | 20.6 | 1.0 | 0.2 | 0.0 | 2.2 | 1.5 | 0.0 | 1.0 |
| Cycle Q Clear(g_c), s | 0.0 | 27.0 | 1.3 | 2.4 | 20.6 | 1.0 | 0.2 | 0.0 | 2.2 | 1.5 | 0.0 | 1.0 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.91 | 1.00 |  | 0.81 |
| Lane Grp Cap(c), veh/h | 478 | 2018 | 799 | 211 | 1590 | 738 | 201 | 0 | 97 | 217 | 0 | 155 |
| V/C Ratio(X) | 0.06 | 0.84 | 0.08 | 0.47 | 0.78 | 0.09 | 0.02 | 0.00 | 0.56 | 0.20 | 0.00 | 0.17 |
| Avail Cap(c_a), veh/h | 478 | 2288 | 906 | 230 | 2251 | 1045 | 323 | 0 | 434 | 277 | 0 | 440 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 17.6 | 12.0 | 6.5 | 16.4 | 15.5 | 4.8 | 29.7 | 0.0 | 31.0 | 28.2 | 0.0 | 28.3 |
| Incr Delay (d2), s/veh | 0.0 | 2.8 | 0.0 | 1.6 | 1.2 | 0.1 | 0.0 | 0.0 | 5.0 | 0.4 | 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/I | /Imp 3 | 7.4 | 0.3 | 0.8 | 6.3 | 0.5 | 0.1 | 0.0 | 0.9 | 0.6 | 0.0 | 0.4 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay (d),s/veh | 17.7 | 14.7 | 6.5 | 18.0 | 16.7 | 4.8 | 29.7 | 0.0 | 36.0 | 28.6 | 0.0 | 28.9 |
| LnGrp LOS | B | B | A | B | B | A | C | A | D | C | A | C |
| Approach Vol, veh/h |  | 1788 |  |  | 1408 |  |  | 59 |  |  | 70 |  |
| Approach Delay, s/veh |  | 14.5 |  |  | 16.3 |  |  | 35.5 |  |  | 28.7 |  |
| Approach LOS |  | B |  |  | B |  |  | D |  |  | C |  |


| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Phs Duration (G+Y+Rc), s8.7 | 43.3 | 4.9 | 10.8 | 16.4 | 35.6 | 7.3 | 8.5 |  |
| Change Period (Y+Rc), s 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |  |
| Max Green Setting (Gmax5., | 44.0 | 5.0 | 18.0 | 5.0 | 44.0 | 5.0 | 18.0 |  |
| Max Q Clear Time (g_c $\mathbf{I} 14$, ,6 | 29.0 | 2.2 | 3.0 | 2.0 | 22.6 | 3.5 | 4.2 |  |
| Green Ext Time (p_c), s | 0.0 | 9.8 | 0.0 | 0.1 | 0.0 | 8.5 | 0.0 | 0.1 |

Intersection Summary
HCM 6th Ctrl Delay 15.9
HCM 6th LOS B




## Notes

User approved pedestrian interval to be less than phase max green.

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

Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

| Intersection |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Int Delay, s/veh | 0 |  |  |  |  |  |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 1 |  |  | 个4 |  | $\mathbf{r}$ |
| Traffic Vol, veh/h | 1765 | 10 | 0 | 1445 | 0 | 5 |
| Future Vol, veh/h | 1765 | 10 | 0 | 1445 | 0 | 5 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | - | 0 |
| Veh in Median Storage, \# | 0 | - | - | 0 | 0 | - |
| Grade, \% | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, \% | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1918 | 11 | 0 | 1571 | 0 | 5 |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | ${ }^{7}$ | 个4 | F | \% | 个4 | F' | 1 | $\uparrow$ | F | ${ }_{1}$ | $\uparrow$ | F |
| Traffic Volume (veh/h) | 185 | 1565 | 20 | 5 | 1320 | 85 | 10 | 15 | 10 | 150 | 5 | 115 |
| Future Volume (veh/h) | 185 | 1565 | 20 | 5 | 1320 | 85 | 10 | 15 | 10 | 150 | 5 | 115 |
| Initial $Q(Q b)$, veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow, veh/h/ln | 1900 | 1856 | 1900 | 1900 | 1826 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 201 | 1701 | 22 | 5 | 1435 | 92 | 11 | 16 | 11 | 163 | 5 | 125 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% | 0 |  | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 302 | 2040 | 932 | 172 | 1762 | 818 | 226 | 141 | 119 | 334 | 255 | 216 |
| Arrive On Green | 0.08 | 0.58 | 0.58 | 0.01 | 0.51 | 0.51 | 0.01 | 0.07 | 0.07 | 0.07 | 0.13 | 0.13 |
| Sat Flow, veh/h | 1810 | 3526 | 1610 | 1810 | 3469 | 1610 | 1810 | 1900 | 1610 | 1810 | 1900 | 1610 |
| Grp Volume(v), veh/h | 201 | 1701 | 22 | 5 | 1435 | 92 | 11 | 16 | 11 | 163 | 5 | 125 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1763 | 1610 | 1810 | 1735 | 1610 | 1810 | 1900 | 1610 | 1810 | 1900 | 1610 |
| Q Serve(g_s), s | 3.2 | 26.5 | 0.4 | 0.1 | 23.4 | 2.0 | 0.4 | 0.5 | 0.4 | 5.0 | 0.2 | 4.9 |
| Cycle Q Clear(g_c), s | 3.2 | 26.5 | 0.4 | 0.1 | 23.4 | 2.0 | 0.4 | 0.5 | 0.4 | 5.0 | 0.2 | 4.9 |
| Prop In Lane | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Lane Grp Cap(c), veh/h | 302 | 2040 | 932 | 172 | 1762 | 818 | 226 | 141 | 119 | 334 | 255 | 216 |
| V/C Ratio(X) | 0.67 | 0.83 | 0.02 | 0.03 | 0.81 | 0.11 | 0.05 | 0.11 | 0.09 | 0.49 | 0.02 | 0.58 |
| Avail Cap(c_a), veh/h | 353 | 2298 | 1050 | 294 | 2154 | 1000 | 336 | 507 | 429 | 334 | 507 | 429 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 13.9 | 11.6 | 6.1 | 11.5 | 13.9 | 8.7 | 28.2 | 29.2 | 29.1 | 25.7 | 25.4 | 27.4 |
| Incr Delay (d2), s/veh | 3.8 | 2.5 | 0.0 | 0.1 | 2.1 | 0.1 | 0.1 | 0.4 | 0.3 | 1.1 | 0.0 | 2.4 |
| 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 | 1.5 | 7.1 | 0.1 | 0.0 | 6.9 | 0.6 | 0.2 | 0.2 | 0.2 | 2.2 | 0.1 | 1.9 |

Unsig. Movement Delay, s/veh

| LnGrp Delay(d),s/veh | 17.6 | 14.1 | 6.1 | 11.6 | 16.0 | 8.7 | 28.3 | 29.5 | 29.5 | 26.8 | 25.4 | 29.8 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| LnGrp LOS | B | B | A | B | B | A | C | C | C | C | C | C |
| Approach Vol, veh $/ h$ |  | 1924 |  |  | 1532 |  |  | 38 |  | 293 |  |  |
| Approach Delay, sveh |  | 14.4 |  |  | 15.6 |  |  | 29.2 |  | 28.1 |  |  |
| Approach LOS | B |  |  | B |  |  | C |  | C |  |  |  |


| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Phs Duration (G+Y+Rc), s | 4.9 | 43.5 | 5.4 | 13.6 | 9.7 | 38.8 | 9.5 | 9.5 |
| Change Period $(\mathrm{Y}+\mathrm{Rc})$, s | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 5.0 | 44.0 | 5.0 | 18.0 | 7.1 | 41.9 | 5.0 | 18.0 |
| Max Q Clear Time (g_c+11), s | 2.1 | 28.5 | 2.4 | 6.9 | 5.2 | 25.4 | 7.0 | 2.5 |
| Green Ext Time (p_c), s | 0.0 | 9.9 | 0.0 | 0.2 | 0.1 | 8.8 | 0.0 | 0.0 |

## Intersection Summary

HCM 6th Ctrl Delay 16.1

HCM 6th LOS


|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |




| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations |  | 个ヶヶ | F | 7 | 44 |  |  |  |  | ${ }_{1}$ | $\uparrow$ | F |
| Traffic Volume（veh／h） | 0 | 1250 | 490 | 565 | 1625 | 0 | 0 | 0 | 0 | 220 | 10 | 330 |
| Future Volume（veh／h） | 0 | 1250 | 490 | 565 | 1625 | 0 | 0 | 0 | 0 | 220 | 10 | 330 |
| Initial $Q(Q b)$ ，veh | 0 | 0 | 0 | 0 | 0 | 0 |  |  |  | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） | 1.00 |  | 1.00 | 1.00 |  | 1.00 |  |  |  | 1.00 |  | 1.00 |
| Parking Bus，Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |  | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach |  | No |  |  | No |  |  |  |  |  | No |  |
| Adj Sat Flow，veh／h／ln | 0 | 1856 | 1856 | 1688 | 1796 | 0 |  |  |  | 1737 | 1411 | 1856 |
| Adj Flow Rate，veh／h | 0 | 1359 | 0 | 614 | 1766 | 0 |  |  |  | 247 | 0 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |  |  |  | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh，\％ | 0 | 3 | 3 | 8 | 7 | 0 |  |  |  | 11 | 33 | 3 |
| Cap，veh／h | 0 | 1520 |  | 1079 | 2503 | 0 |  |  |  | 344 | 0 |  |
| Arrive On Green | 0.00 | 0.30 | 0.00 | 0.69 | 1.00 | 0.00 |  |  |  | 0.10 | 0.00 | 0.00 |
| Sat Flow，veh／h | 0 | 5233 | 1572 | 3118 | 3503 | 0 |  |  |  | 3309 | 0 | 1572 |
| Grp Volume（v），veh／h | 0 | 1359 | 0 | 614 | 1766 | 0 |  |  |  | 247 | 0 | 0 |
| Grp Sat Flow（s），veh／h／ln | 0 | 1689 | 1572 | 1559 | 1706 | 0 |  |  |  | 1654 | 0 | 1572 |
| Q Serve（g＿s），s | 0.0 | 20.5 | 0.0 | 8.0 | 0.0 | 0.0 |  |  |  | 5.8 | 0.0 | 0.0 |
| Cycle Q Clear（g＿c），s | 0.0 | 20.5 | 0.0 | 8.0 | 0.0 | 0.0 |  |  |  | 5.8 | 0.0 | 0.0 |
| Prop In Lane | 0.00 |  | 1.00 | 1.00 |  | 0.00 |  |  |  | 1.00 |  | 1.00 |
| Lane Grp Cap（c），veh／h | 0 | 1520 |  | 1079 | 2503 | 0 |  |  |  | 344 | 0 |  |
| V／C Ratio（X） | 0.00 | 0.89 |  | 0.57 | 0.71 | 0.00 |  |  |  | 0.72 | 0.00 |  |
| Avail Cap（c＿a），veh／h | 0 | 1520 |  | 1079 | 2503 | 0 |  |  |  | 744 | 0 |  |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 |  |  |  | 1.00 | 1.00 | 1.00 |
| Upstream Filter（l） | 0.00 | 0.73 | 0.00 | 0.38 | 0.38 | 0.00 |  |  |  | 1.00 | 0.00 | 0.00 |
| Uniform Delay（d），s／veh | 0.0 | 26.8 | 0.0 | 9.3 | 0.0 | 0.0 |  |  |  | 34.7 | 0.0 | 0.0 |
| Incr Delay（d2），s／veh | 0.0 | 6.4 | 0.0 | 0.3 | 0.7 | 0.0 |  |  |  | 2.8 | 0.0 | 0.0 |
| Initial Q Delay（d3），s／veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |  |  | 0.0 | 0.0 | 0.0 |
| \％ile BackOfQ（ $50 \%$ ），veh／ | ／ 11 m 0 | 8.1 | 0.0 | 1.7 | 0.2 | 0.0 |  |  |  | 2.3 | 0.0 | 0.0 |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh | 0.0 | 33.2 | 0.0 | 9.6 | 0.7 | 0.0 |  |  |  | 37.5 | 0.0 | 0.0 |
| LnGrp LOS | A | C |  | A | A | A |  |  |  | D | A |  |
| Approach Vol，veh／h |  | 1359 | A |  | 2380 |  |  |  |  |  | 247 | A |
| Approach Delay，s／veh |  | 33.2 |  |  | 2.9 |  |  |  |  |  | 37.5 |  |
| Approach LOS |  | C |  |  | A |  |  |  |  |  | D |  |


| Timer－Assigned Phs 1 | 2 | 4 | 6 |
| :---: | :---: | :---: | :---: |
| Phs Duration（ $G+Y+R \mathrm{c}$ ）， 34.7 | 31.0 | 14.3 | 65.7 |
| Change Period（Y＋Rc），s 7.0 | 7.0 | 6.0 | 7.0 |
| Max Green Setting（Gmax\％， 8 | 24.0 | 18.0 | 49.0 |
| Max Q Clear Time（g＿c＋1MO，¢ | 22.5 | 7.8 | 2.0 |
| Green Ext Time（p＿c），s 1.5 | 1.1 | 0.6 | 19.0 |

Intersection Summary

| HCM 6th Ctrl Delay | 15.4 |
| :--- | ---: |
| HCM 6th LOS | B |

## Notes

User approved volume balancing among the lanes for turning movement．
Unsignalized Delay for［EBR，SBR］is excluded from calculations of the approach delay and intersection delay．

| Movement EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | 坐 |  |  | 个个个 | F＇ | ${ }_{1}$ | $\uparrow$ | F＇ |  |  |  |  |
| Traffic Volume（veh／h） 275 | 1195 | 0 | 0 | 1700 | 310 | 490 | 0 | 685 | 0 | 0 | 0 |  |
| Future Volume（veh／h） 275 | 1195 | 0 | 0 | 1700 | 310 | 490 | 0 | 685 | 0 | 0 | 0 |  |
| Initial $Q(Q b)$ ，veh 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |  |  |  |
| Ped－Bike Adj（A＿pbT） 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |  |  |  |  |
| Parking Bus，Adj 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |  |  |
| Work Zone On Approach | No |  |  | No |  |  | No |  |  |  |  |  |
| Adj Sat Flow，veh／h／n 1758 | 1826 | 0 | 0 | 1781 | 1693 | 1716 | 1900 | 1737 |  |  |  |  |
| Adj Flow Rate，veh／h 299 | 1299 | 0 | 0 | 1848 | 0 | 533 | 0 | 0 |  |  |  |  |
| Peak Hour Factor 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |  |  |  |  |
| Percent Heavy Veh，\％ 3 | 5 | 0 | 0 | 8 | 14 | 6 | 0 | 11 |  |  |  |  |
| Cap，veh／h 434 | 2242 | 0 | 0 | 2067 |  | 625 | 0 |  |  |  |  |  |
| Arrive On Green 0.27 | 1.00 | 0.00 | 0.00 | 0.43 | 0.00 | 0.19 | 0.00 | 0.00 |  |  |  |  |
| Sat Flow，veh／h 3248 | 3561 | 0 | 0 | 5024 | 1434 | 3268 | 0 | 1472 |  |  |  |  |
| Grp Volume（v），veh／h 299 | 1299 | 0 | 0 | 1848 | 0 | 533 | 0 | 0 |  |  |  |  |
| Grp Sat Flow（s），veh／h／ln1624 | 1735 | 0 | 0 | 1621 | 1434 | 1634 | 0 | 1472 |  |  |  |  |
| Q Serve（g＿s），s 6.6 | 0.0 | 0.0 | 0.0 | 28.2 | 0.0 | 12.6 | 0.0 | 0.0 |  |  |  |  |
| Cycle Q Clear（g＿c），s 6.6 | 0.0 | 0.0 | 0.0 | 28.2 | 0.0 | 12.6 | 0.0 | 0.0 |  |  |  |  |
| Prop In Lane $\quad 1.00$ |  | 0.00 | 0.00 |  | 1.00 | 1.00 |  | 1.00 |  |  |  |  |
| Lane Grp Cap（c），veh／h 434 | 2242 | 0 | 0 | 2067 |  | 625 | 0 |  |  |  |  |  |
| V／C Ratio（X） 0.69 | 0.58 | 0.00 | 0.00 | 0.89 |  | 0.85 | 0.00 |  |  |  |  |  |
| Avail Cap（c＿a），veh／h 434 | 2242 | 0 | 0 | 2067 |  | 735 | 0 |  |  |  |  |  |
| HCM Platoon Ratio 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |  |  |  |  |
| Upstream Filter（I） 0.64 | 0.64 | 0.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 |  |  |  |  |
| Uniform Delay（d），s／veh 27.8 | 0.0 | 0.0 | 0.0 | 21.3 | 0.0 | 31.3 | 0.0 | 0.0 |  |  |  |  |
| Incr Delay（d2），s／veh 2.9 | 0.7 | 0.0 | 0.0 | 6.5 | 0.0 | 8.4 | 0.0 | 0.0 |  |  |  |  |
| Initial Q Delay（d3），s／veh 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  |  |  |  |
| \％ile BackOfQ（50\％），veh／Ir2． 3 | 0.2 | 0.0 | 0.0 | 9.9 | 0.0 | 5.3 | 0.0 | 0.0 |  |  |  |  |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh 30.8 | 0.7 | 0.0 | 0.0 | 27.8 | 0.0 | 39.6 | 0.0 | 0.0 |  |  |  |  |
| LnGrp LOS C | A | A | A | C |  | D | A |  |  |  |  |  |
| Approach Vol，veh／h | 1598 |  |  | 1848 | A |  | 533 | A |  |  |  |  |
| Approach Delay，s／veh | 6.3 |  |  | 27.8 |  |  | 39.6 |  |  |  |  |  |
| Approach LOS | A |  |  | C |  |  | D |  |  |  |  |  |
| Timer－Assigned Phs | 2 |  |  | 5 | 6 |  | 8 |  |  |  |  |  |
| Phs Duration（ $\mathrm{G}+\mathrm{Y}+\mathrm{Rc}$ ），s | 58.7 |  |  | 17.7 | 41.0 |  | 21.3 |  |  |  |  |  |
| Change Period（ $\mathrm{Y}+\mathrm{Rc} \mathrm{c}$ ）， s | 7.0 |  |  | 7.0 | ＊ 7 |  | 6.0 |  |  |  |  |  |
| Max Green Setting（Gmax），s | 49.0 |  |  | 10.0 | ＊ 34 |  | 18.0 |  |  |  |  |  |
| Max Q Clear Time（g＿c＋1），s | 2.0 |  |  | 8.6 | 30.2 |  | 14.6 |  |  |  |  |  |
| Green Ext Time（p＿c），s | 11.1 |  |  | 0.1 | 3.1 |  | 0.7 |  |  |  |  |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| HCM 6th Ctrl DelayHCM 6th LOS |  | 20.8 |  |  |  |  |  |  |  |  |  |  |
|  |  | 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．
Unsignalized Delay for［NBR，WBR］is excluded from calculations of the approach delay and intersection delay．





| Movement EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | 44 | 7 | ${ }_{1}$ | 44 | 7 | ${ }^{*}$ | 4 | 7 | ${ }^{1}$ | 4 | 7 |
| Traffic Volume (veh/h) 110 | 1205 | 170 | 140 | 585 | 75 | 105 | 15 | 170 | 80 | 15 | 65 |
| Future Volume (veh/h) 110 | 1205 | 170 | 140 | 585 | 75 | 105 | 15 | 170 | 80 | 15 | 65 |
| Initial Q (Qb), veh 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No |  |  | No |  |  | No |  |  | No |  |
| Adj Sat Flow, veh/h/ln 1900 | 1737 | 1530 | 1900 | 1781 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h 120 | 1310 | 185 | 152 | 636 | 82 | 114 | 16 | 185 | 87 | 16 | 0 |
| Peak Hour Factor 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% 0 | 11 | 25 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h 298 | 1375 | 540 | 202 | 1397 | 665 | 528 | 465 | 394 | 469 | 447 |  |
| Arrive On Green 0.06 | 0.42 | 0.42 | 0.02 | 0.14 | 0.14 | 0.06 | 0.24 | 0.24 | 0.05 | 0.24 | 0.00 |
| Sat Flow, veh/h 1810 | 3300 | 1296 | 1810 | 3385 | 1610 | 1810 | 1900 | 1610 | 1810 | 1900 | 1610 |
| Grp Volume(v), veh/h 120 | 1310 | 185 | 152 | 636 | 82 | 114 | 16 | 185 | 87 | 16 | 0 |
| Grp Sat Flow(s),veh/h/ln1810 | 1650 | 1296 | 1810 | 1692 | 1610 | 1810 | 1900 | 1610 | 1810 | 1900 | 1610 |
| Q Serve(g_s), s 3.5 | 30.7 | 5.4 | 2.6 | 13.8 | 3.6 | 3.8 | 0.5 | 6.1 | 2.9 | 0.5 | 0.0 |
| Cycle Q Clear(g_c), s 3.5 | 30.7 | 5.4 | 2.6 | 13.8 | 3.6 | 3.8 | 0.5 | 6.1 | 2.9 | 0.5 | 0.0 |
| Prop In Lane 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Lane Grp Cap(c), veh/h 298 | 1375 | 540 | 202 | 1397 | 665 | 528 | 465 | 394 | 469 | 447 |  |
| V/C Ratio(X) 0.40 | 0.95 | 0.34 | 0.75 | 0.46 | 0.12 | 0.22 | 0.03 | 0.47 | 0.19 | 0.04 |  |
| Avail Cap(c_a), veh/h 338 | 1382 | 543 | 206 | 1397 | 665 | 528 | 465 | 394 | 486 | 447 |  |
| HCM Platoon Ratio 1.00 | 1.00 | 1.00 | 0.33 | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) 1.00 | 1.00 | 1.00 | 0.96 | 0.96 | 0.96 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh 18.1 | 22.6 | 7.8 | 37.3 | 26.3 | 21.8 | 21.0 | 23.0 | 15.3 | 21.2 | 23.6 | 0.0 |
| Incr Delay (d2), s/veh 0.9 | 14.4 | 0.4 | 13.7 | 0.2 | 0.1 | 0.2 | 0.1 | 4.0 | 0.2 | 0.1 | 0.0 |
| Initial Q Delay(d3),s/veh 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \%ile BackOfQ(50\%),veh/li1 3 | 12.5 | 2.1 | 3.5 | 5.9 | 1.3 | 1.6 | 0.2 | 3.2 | 1.2 | 0.2 | 0.0 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay(d),s/veh 18.9 | 37.0 | 8.2 | 51.0 | 26.5 | 21.9 | 21.2 | 23.2 | 19.3 | 21.4 | 23.7 | 0.0 |
| LnGrp LOS B | D | A | D | C | C | C | C | B | C | C |  |
| Approach Vol, veh/h | 1615 |  |  | 870 |  |  | 315 |  |  | 103 | A |
| Approach Delay, s/veh | 32.4 |  |  | 30.3 |  |  | 20.2 |  |  | 21.8 |  |
| Approach LOS | C |  |  | C |  |  | C |  |  | C |  |


| Timer - Assigned Phs | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Phs Duration ( $G+Y+$ Rc), s9.3 | 37.8 | 9.5 | 23.3 | 9.6 | 37.5 | 8.8 | 24.1 |
| Change Period ( $Y+R \mathrm{Cc}$, s 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax F , $^{\text {G }}$ | 33.5 | 5.0 | 18.5 | 6.9 | 31.6 | 5.0 | 18.5 |
| Max Q Clear Time (g_c +14 , $\mathrm{E}_{6}$ | 32.7 | 5.8 | 2.5 | 5.5 | 15.8 | 4.9 | 8.1 |
| Green Ext Time (p_c), s 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 3.5 | 0.0 | . 5 |

Intersection Summary
HCM 6th Ctrl Delay 30.1

HCM 6th LOS C
Notes
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

| Movement EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | 44 | 7 | ${ }^{*}$ | 44 | 7 | \% 17 | $\uparrow$ |  | ${ }^{1}$ | $\uparrow$ |  |
| Traffic Volume (veh/h) 30 | 1050 | 375 | 280 | 540 | 30 | 210 | 10 | 185 | 60 | 10 | 50 |
| Future Volume (veh/h) 30 | 1050 | 375 | 280 | 540 | 30 | 210 | 10 | 185 | 60 | 10 | 50 |
| Initial Q $(\mathrm{Qb})$, veh 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus, Adj 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 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 | 1141 | 408 | 304 | 587 | 33 | 228 | 11 | 201 | 65 | 11 | 54 |
| Peak Hour Factor 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, \% 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h 241 | 1253 | 559 | 352 | 1618 | 722 | 894 | 19 | 341 | 325 | 62 | 304 |
| Arrive On Green 0.06 | 0.71 | 0.71 | 0.04 | 0.15 | 0.15 | 0.06 | 0.22 | 0.22 | 0.06 | 0.22 | 0.22 |
| Sat Flow, veh/h 1781 | 3554 | 1585 | 1781 | 3554 | 1585 | 3456 | 83 | 1515 | 1781 | 275 | 1352 |
| Grp Volume(v), veh/h 33 | 1141 | 408 | 304 | 587 | 33 | 228 | 0 | 212 | 65 | 0 | 65 |
| Grp Sat Flow(s),veh/h/ln1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1728 | 0 | 1598 | 1781 | 0 | 1627 |
| Q Serve(g_s), s 1.0 | 21.2 | 12.5 | 8.5 | 11.9 | 1.0 | 0.0 | 0.0 | 9.5 | 0.0 | 0.0 | 2.6 |
| Cycle Q Clear(g_c), s 1.0 | 21.2 | 12.5 | 8.5 | 11.9 | 1.0 | 0.0 | 0.0 | 9.5 | 0.0 | 0.0 | 2.6 |
| Prop In Lane 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 0.95 | 1.00 |  | 0.83 |
| Lane Grp Cap(c), veh/h 241 | 1253 | 559 | 352 | 1618 | 722 | 894 | 0 | 359 | 325 | 0 | 366 |
| V/C Ratio(X) 0.14 | 0.91 | 0.73 | 0.86 | 0.36 | 0.05 | 0.25 | 0.00 | 0.59 | 0.20 | 0.00 | 0.18 |
| Avail Cap(c_a), veh/h 294 | 1253 | 559 | 352 | 1618 | 722 | 896 | 0 | 359 | 326 | 0 | 366 |
| HCM Platoon Ratio 2.00 | 2.00 | 2.00 | 0.33 | 0.33 | 0.33 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) 0.60 | 0.60 | 0.60 | 0.88 | 0.88 | 0.88 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh 19.4 | 10.8 | 9.5 | 35.4 | 23.6 | 8.8 | 24.4 | 0.0 | 27.7 | 29.3 | 0.0 | 25.0 |
| Incr Delay (d2), s/veh 0.2 | 7.4 | 5.0 | 17.4 | 0.6 | 0.1 | 0.1 | 0.0 | 6.9 | 0.3 | 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/lm0. 4 | 4.4 | 3.2 | 7.4 | 5.1 | 0.5 | 1.7 | 0.0 | 4.2 | 1.1 | 0.0 | 1.1 |
| Unsig. Movement Delay, s/veh |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay(d),s/veh 19.5 | 18.2 | 14.5 | 52.8 | 24.1 | 8.9 | 24.5 | 0.0 | 34.6 | 29.6 | 0.0 | 26.1 |
| LnGrp LOS B | B | B | D | C | A | C | A | C | C | A | C |
| Approach Vol, veh/h | 1582 |  |  | 924 |  |  | 440 |  |  | 130 |  |
| Approach Delay, s/veh | 17.3 |  |  | 33.0 |  |  | 29.4 |  |  | 27.8 |  |
| Approach LOS | B |  |  | C |  |  | C |  |  | C |  |


| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Phs Duration (G+Y+Rc), $\$ 5.3$ | 32.7 | 9.5 | 22.5 | 7.1 | 40.9 | 9.5 | 22.5 |  |
| Change Period (Y+Rc), s 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |  |
| Max Green Setting (Gmax0.). | 28.2 | 5.0 | 18.0 | 5.0 | 34.0 | 5.0 | 18.0 |  |
| Max Q Clear Time (g_c+110,5 | 23.2 | 2.0 | 4.6 | 3.0 | 13.9 | 2.0 | 11.5 |  |
| Green Ext Time (p_c), s | 0.0 | 3.4 | 0.2 | 0.2 | 0.0 | 3.4 | 0.0 | 0.6 |

Intersection Summary
HCM 6th Ctrl Delay 24.2

HCM 6th LOS

| Movement EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations \％ | 个4 | F | ${ }^{*}$ | 个4 | F＇ | ${ }_{1}$ | 个 $\uparrow$ | F | ${ }_{1}$ | 个个 | 7 |
| Traffic Volume（veh／h） 130 | 950 | 215 | 90 | 685 | 25 | 140 | 325 | 120 | 20 | 210 | 25 |
| Future Volume（veh／h） 130 | 950 | 215 | 90 | 685 | 25 | 140 | 325 | 120 | 20 | 210 | 25 |
| Initial $Q(Q b)$ ，veh 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Parking Bus，Adj 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| 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 141 | 1033 | 234 | 98 | 745 | 27 | 152 | 353 | 130 | 22 | 228 | 27 |
| Peak Hour Factor 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh，\％ 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap，veh／h 252 | 1174 | 524 | 315 | 1270 | 567 | 254 | 509 | 227 | 178 | 351 | 156 |
| Arrive On Green 0.16 | 0.66 | 0.66 | 0.11 | 0.36 | 0.36 | 0.07 | 0.14 | 0.14 | 0.02 | 0.10 | 0.10 |
| Sat Flow，veh／h 1781 | 3554 | 1585 | 1781 | 3554 | 1585 | 1781 | 3554 | 1585 | 1781 | 3554 | 1585 |
| Grp Volume（v），veh／h 141 | 1033 | 234 | 98 | 745 | 27 | 152 | 353 | 130 | 22 | 228 | 27 |
| Grp Sat Flow（s），veh／h／ln 1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 |
| Q Serve（g＿s），s 4.8 | 18.8 | 2.7 | 0.0 | 13.6 | 0.9 | 5.5 | 7.6 | 3.3 | 0.9 | 4.9 | 1.2 |
| Cycle Q Clear（g＿c），s 4.8 | 18.8 | 2.7 | 0.0 | 13.6 | 0.9 | 5.5 | 7.6 | 3.3 | 0.9 | 4.9 | 1.2 |
| Prop In Lane 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 | 1.00 |  | 1.00 |
| Lane Grp Cap（c），veh／h 252 | 1174 | 524 | 315 | 1270 | 567 | 254 | 509 | 227 | 178 | 351 | 156 |
| V／C Ratio（X） 0.56 | 0.88 | 0.45 | 0.31 | 0.59 | 0.05 | 0.60 | 0.69 | 0.57 | 0.12 | 0.65 | 0.17 |
| Avail Cap（c＿a），veh／h 325 | 1466 | 654 | 315 | 1270 | 567 | 254 | 822 | 367 | 246 | 800 | 357 |
| HCM Platoon Ratio 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter（I） 0.36 | 0.36 | 0.36 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay（d），s／veh 21.0 | 12.3 | 2.3 | 30.9 | 20.9 | 16.8 | 30.2 | 32.6 | 9.5 | 31.3 | 34.7 | 33.1 |
| Incr Delay（d2），s／veh 0.7 | 2.1 | 0.2 | 0.6 | 2.0 | 0.2 | 3.8 | 1.7 | 2.3 | 0.3 | 2.0 | 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／lm1． 6 | 3.7 | 1.5 | 1.6 | 5.2 | 0.3 | 2.8 | 3.3 | 2.3 | 0.4 | 2.1 | 0.5 |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh 21.7 | 14.4 | 2.5 | 31.4 | 22.9 | 17.0 | 34.0 | 34.3 | 11.8 | 31.6 | 36.8 | 33.6 |
| LnGrp LOS C | B | A | C | C | B | C | C | B | C | D | C |
| Approach Vol，veh／h | 1408 |  |  | 870 |  |  | 635 |  |  | 277 |  |
| Approach Delay，s／veh | 13.1 |  |  | 23.7 |  |  | 29.6 |  |  | 36.0 |  |
| Approach LOS | B |  |  | C |  |  | C |  |  | D |  |


| Timer－Assigned Phs | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Phs Duration（ $\mathrm{G}+\mathrm{Y}+\mathrm{Rc}$ ），$\$ 3.2$ | 30.9 | 10.0 | 12.4 | 11.1 | 33.1 | 6.4 | 16.0 |
| Change Period（ $\mathrm{Y}+\mathrm{Rc}$ ），s 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting（Gmax）．${ }^{5}$ | 33.0 | 5.5 | 18.0 | 9.9 | 28.6 | 5.0 | 18.5 |
| Max Q Clear Time（g＿c＋124，©s | 20.8 | 7.5 | 6.9 | 6.8 | 15.6 | 2.9 | 9.6 |
| Green Ext Time（p＿c），s 0.1 | 5.6 | 0.0 | 1.0 | 0.1 | 3.7 | 0.0 | 1.8 |

Intersection Summary
HCM 6th Ctrl Delay 21.3

HCM 6th LOS C

## $\stackrel{\rightarrow}{\boldsymbol{*}}+4 \downarrow$

| Movement E | EBL | EBT | WBT | WBR | SBL | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | ${ }_{4}$ | 个个 | 个个 | F＇ | \％ | F＇ |
| Traffic Volume（veh／h） 1 | 190 | 900 | 745 | 15 | 15 | 55 |
| Future Volume（veh／h） 1 | 190 | 900 | 745 | 15 | 15 | 55 |
| Initial $\mathrm{Q}(\mathrm{Qb})$ ，veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped－Bike Adj（A＿pbT） 1.00 | 1.00 |  |  | 1.00 | 1.00 | 1.00 |
| Parking Bus，Adj 1.00 | 1.00 | 1.00 | 1.00 | 0.90 | 1.00 | 1.00 |
| Work Zone On Approach |  | No | No |  | No |  |
| Adj Sat Flow，veh／h／ln 190 | 1900 | 1752 | 1737 | 1218 | 1707 | 1900 |
| Adj Flow Rate，veh／h 207 | 207 | 978 | 810 | 16 | 16 | 60 |
| Peak Hour Factor 0.0 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh，\％ | 0 | 10 | 11 | 46 | 13 | 0 |
| Cap，veh／h 5 | 533 | 2084 | 1280 | 360 | 217 | 215 |
| Arrive On Green 0.12 | 0.12 | 0.63 | 0.39 | 0.39 | 0.13 | 0.13 |
| Sat Flow，veh／h 18 | 1810 | 3416 | 3387 | 929 | 1626 | 1610 |
| Grp Volume（v），veh／h 207 | 207 | 978 | 810 | 16 | 16 | 60 |
| Grp Sat Flow（s），veh／h／ln18 | 1810 | 1664 | 1650 | 929 | 1626 | 1610 |
| Q Serve（g＿s），s | 2.1 | 5.8 | 7.5 | 0.4 | 0.3 | 1.3 |
| Cycle Q Clear（g＿c），s | 2.1 | 5.8 | 7.5 | 0.4 | 0.3 | 1.3 |
| Prop In Lane 1.00 | 1.00 |  |  | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap（c），veh／h 5 | 533 | 2084 | 1280 | 360 | 217 | 215 |
| V／C Ratio（X） 0.3 | 0.39 | 0.47 | 0.63 | 0.04 | 0.07 | 0.28 |
| Avail Cap（c＿a），veh／h 924 | 924 | 4400 | 2865 | 807 | 934 | 925 |
| HCM Platoon Ratio 1.0 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter（l） 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay（d），s／veh | 5.8 | 3.7 | 9.3 | 7.1 | 14.2 | 14.6 |
| Incr Delay（d2），s／veh | 0.5 | 0.2 | 0.5 | 0.1 | 0.1 | 0.7 |
| Initial Q Delay（d3），s／veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| \％ile BackOfQ（ $50 \%$ ），veh／ln | In0． 2 | 0.0 | 1.4 | 0.0 | 0.1 | 0.0 |
| Unsig．Movement Delay，s／veh |  |  |  |  |  |  |
| LnGrp Delay（d），s／veh | 6.3 | 3.9 | 9.8 | 7.2 | 14.3 | 15.3 |
| LnGrp LOS | A | A | A | A | B | B |
| Approach Vol，veh／h |  | 1185 | 826 |  | 76 |  |
| Approach Delay，s／veh |  | 4.3 | 9.8 |  | 15.1 |  |
| Approach LOS |  | A | A |  | B |  |
| Timer－Assigned Phs |  | 2 |  | 4 | 5 | 6 |
| Phs Duration（ $G+Y+R \mathrm{c}$ ）， s |  | 27.9 |  | 9.5 | 8.9 | 19.0 |
| Change Period（ $\mathrm{Y}+\mathrm{Rc}$ ），s |  | 4.5 |  | 4.5 | 4.5 | 4.5 |
| Max Green Setting（Gmax），s |  | 49.5 |  | 21.5 | 12.5 | 32.5 |
| Max Q Clear Time（g＿c＋11），s |  | 7.8 |  | 3.3 | 4.1 | 9.5 |
| Green Ext Time（p＿c），s |  | 7.1 |  | 0.2 | 0.3 | 5.1 |

## Intersection Summary

| HCM 6th Ctrl Delay | 6.9 |
| :--- | ---: |
| HCM 6th LOS | A |

## Notes

User approved pedestrian interval to be less than phase max green．


|  |  | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | SBR

Unsig. Movement Delay, s/veh

| LnGrp Delay(d),s/veh | 8.8 | 12.6 | 9.6 | 8.9 | 10.4 | 8.0 | 16.8 | 0.0 | 19.5 | 18.0 | 0.0 | 19.6 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| LnGrp LOS | A | B | A | A | B | A | B | A | B | B | A | B |
| Approach Vol, veh/h | 903 |  |  | 766 |  |  | 218 |  |  | 49 |  |  |
| Approach Delay, s/veh | 12.3 |  |  | 10.3 |  |  | 18.7 |  |  | 19.4 |  |  |
| Approach LOS |  | B |  |  | B |  |  | B |  | B |  |  |


| Timer - Assigned Phs | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Phs Duration ( $\mathrm{G}+\mathrm{Y}+\mathrm{Rc}$ ), s 7.5 | 21.5 | 7.3 | 9.5 | 5.7 | 23.2 | 4.8 | 12.0 |
| Change Period ( $\mathrm{Y}+\mathrm{Rc}$ ), s 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax ${ }_{\text {¢ }}$. 5 | 39.5 | 7.5 | 18.5 | 5.5 | 40.5 | 5.5 | 20.5 |
| Max Q Clear Time (g_c $+1313,1$ b | 11.4 | 3.8 | 3.2 | 2.3 | 9.2 | 2.1 | 5.9 |
| Green Ext Time (p_c), s 0.0 | 5.6 | 0.0 | 0.1 | 0.0 | 4.4 | 0.0 | 0.6 |

Intersection Summary

| HCM 6th Ctrl Delay | 12.4 |
| :--- | ---: |
| HCM 6th LOS | B |


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