

Appendix M. Simi Valley Double Track and Platform Project Traffic Impact Study

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Traffic Impact Study

*Simi Valley Double Track Improvement
Project*

March 2021



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Acronyms

CEQA	California Environmental Quality Act
CP	control point
EB	eastbound
HCM	Highway Capacity Manual
LOS	level of service
MP	mile post
NB	northbound
Project	Simi Valley Double Track and Platform Project
ROW	right-of-way
SB	southbound
SCRRA	Southern California Regional Rail Authority
UPRR	Union Pacific Railroad
VCL	Ventura County Line
VMT	vehicle miles traveled
WB	westbound

1 Introduction

At the request of the Southern California Regional Rail Authority (SCRRA), HDR conducted a traffic impact study analysis for the Simi Valley Double Track and Platform Project (Project) in the City of Simi Valley, California. The purpose of this report is to document the existing traffic conditions and potential impacts on those conditions resulting from implementation of the Project. The traffic study area includes the potentially impacted existing at-grade railroad crossings within the Project study area and adjacent roadway segments, pursuant to federal, state, and local regulatory requirements, including the City of Simi Valley's threshold of significance criteria for traffic impacts.

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2 Project Description

2.1 Project Overview

SCRRA is proposing the Simi Valley Double Track and Platform Project to improve safety at the Simi Valley Station and to increase operational capacity on Metrolink's Ventura County Line (VCL). The Project includes at-grade crossing improvements and the construction of new rail infrastructure. The Project would occur primarily within existing railroad right-of-way (ROW) owned by SCRRA and Union Pacific Railroad (UPRR) from Sequoia Avenue east to the Arroyo Simi Railroad Bridge just south of Stearns Street in the City of Simi Valley, California. The Project would add 2.20 miles of main track and increase the passenger capacity at the Simi Valley Station by adding an additional platform and pedestrian undercrossing. In addition, an existing signal at Sycamore Drive would be relocated, and a new signal would be installed approximately 2,000 feet west of Erringer Road.

The objectives of the Project are to improve safety by adding pedestrian safety features and improve reliability by allowing more efficient train operations; allow for an hourly bidirectional service, a half-hourly regional train to dispatch in the peak direction, and an hourly express train in the peak direction along Metrolink's VCL, which operates on the Ventura Subdivision between Moorpark and Los Angeles Union Station; and include at-grade crossing improvements at Sequoia Avenue, Tapo Canyon Road, Tapo Street, East Los Angeles Avenue, and Hidden Ranch Drive in support of the city's future application with the Federal Railroad Administration for quiet zone status along the alignment.

2.2 Goals and Objectives

The Project includes the following objectives:

- Objective 1: Improve safety and reliability of the existing rail system
- Objective 2: Increase operational capacity of the existing VCL passenger rail system and increase passenger capacity at the Simi Valley Station
- Objective 3: Implement infrastructural improvements that will support the city's future applications to the Federal Railroad Administration for quiet zone status along the alignment

2.3 Project Location

For the purposes of the environmental impact report, SCRRA defined a Project study area, which comprises the Project's physical footprint along the approximately 2.20-mile segment of SCRRA's Ventura Subdivision with a 500-foot buffer. The Project study area begins at its western terminus at Sequoia Avenue and ends east of Hidden Ranch Drive, just west of the Arroyo Simi Railroad Bridge, within the City of Simi Valley. Figure 2-1 shows the regional location of the Project. Figure 2-2 shows the Project's location in southern Simi Valley, the extent of the proposed improvements, and the Project study area. The Project study area is part of the Simi Land Grant on the United States Geological Survey *Simi Valley East, California* 7.5-minute series topographical quadrangle. As shown on Figure 2-2, the Project is located between Mile Post (MP) 436.20 and MP 438.40.

2.4 Project Components

As shown on Figure 2-3 (Sheet 1 through 9), the Project would include construction of a new side platform (south of the existing platform) and pedestrian underpass at the existing Simi Valley Station, the construction of a second main track along a 2.20-mile stretch of Metrolink's existing Ventura Subdivision from MP 436.20 to MP 438.40, and the implementation of two new control points (CP) at MP 436.30 (CP Sequoia) and MP 438.40 (CP Arroyo) (Figure 2-3). New intermediate signals would be installed at MP 433.96, MP 435.13, and MP 437.30. Additionally, Project improvements would include supplemental safety measures at the existing grade crossings at Sequoia Avenue, Tapo Canyon Street, Tapo Street, East Los Angeles Avenue, and Hidden Ranch Drive, which would support future applications by the city to the Federal Railroad Administration for quiet zone status along the alignment.¹ Existing wet and dry utilities (above and below grade) within the Project study area would also be protected in place or relocated pending final engineering design and final placement of the proposed infrastructure.

2.4.1 Physical Improvements

The Project would include multiple improvements to the existing Simi Valley Station, including construction of a second platform, a supporting pedestrian undercrossing (or underpass), and passenger emergency egress to enhance passenger safety. The existing platform would also be reconfigured to remove the curvature within the existing platform to the north side of the main line tracks. In conjunction with these station improvements, SCRRA proposes the installation of approximately 2.20 miles of new main track within existing rail ROW, new railroad signals and positive train control towers, and related supplemental safety measures at existing at-grade crossings. These improvements are described in more detail below.

Track and Civil

SCRRA proposes the construction of an approximately 2.20-mile segment of second mainline track, from Barnes Street in the west to Hidden Ranch Road in the east, to enhance operational capacity on Metrolink's VCL. The track improvements are described in further detail below:

- Approximately 900 feet of the main track would be reprofiled east of CP Sequoia.
- West of Tapo Street (to Barnes Street), a new second track would be placed within SCRRA ROW. The new track would be constructed north of the existing main line track and would connect to the existing track east of Tapo Street to form Main Track 1.
- Approximately 900 feet of existing track between East Los Angeles Avenue and Tapo Street would be shifted to accommodate the new tracks tying into the existing track. In addition, an existing UPRR spur track between East Los Angeles Avenue and Tapo Street, within SCRRA ROW, would be shifted to accommodate the second track on the north side.

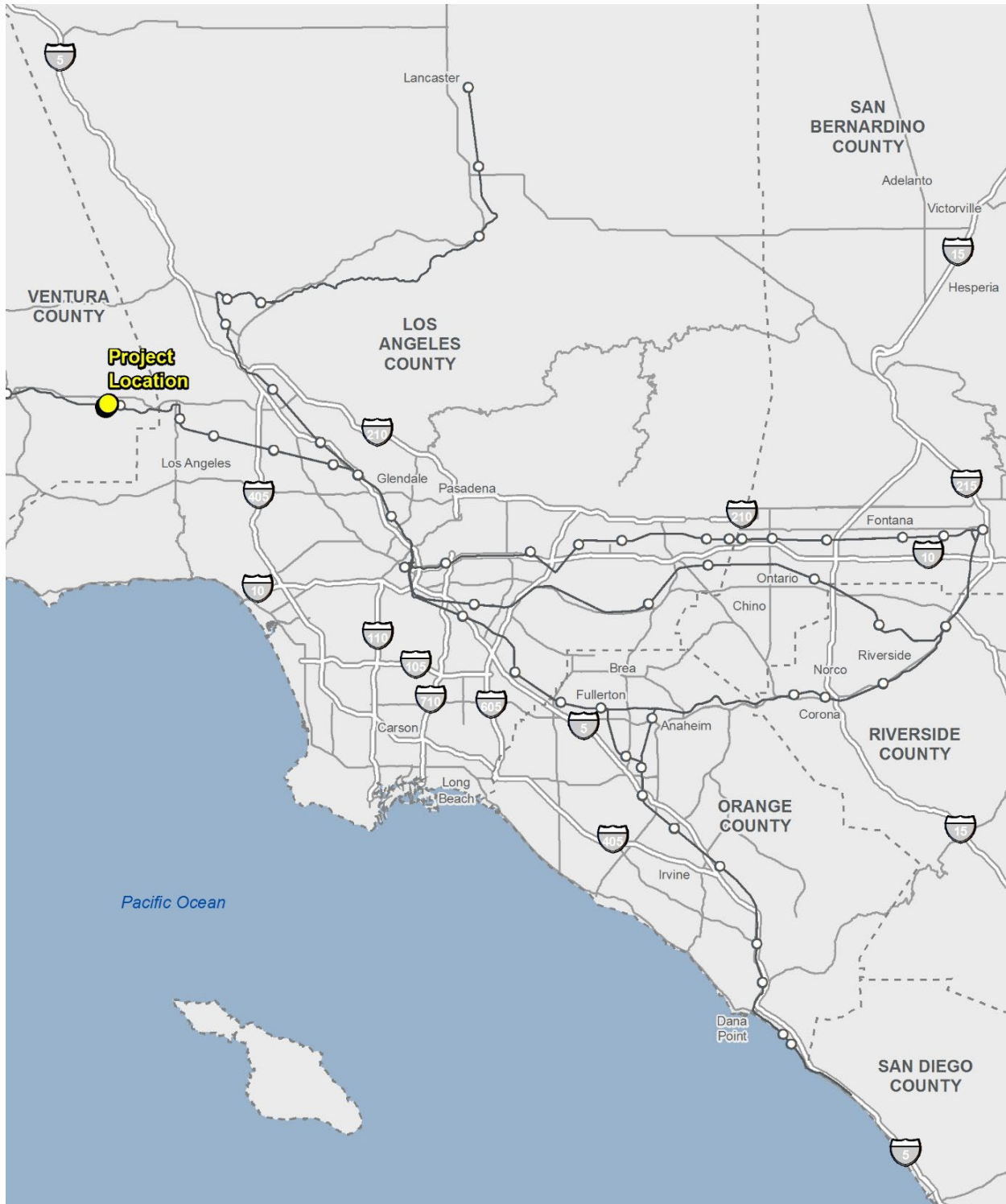
¹ Upon completion of the Project, the City of Simi Valley would be required to complete the Quiet Zone Creation Process in accordance with the regulations, policies, and procedures established by the Federal Railroad Administration in its Train Horn Final Rule, as amended on August 17, 2006 (49 Code of Federal Regulations Part 222).

- Approximately 1,400 feet of existing track would be shifted between East Los Angeles Avenue to Simi Valley Station to accommodate the installation of a second track south of the existing track, within UPRR ROW. These two main tracks are shown and labeled as MT-1 and MT-2 on Figure 2-3 (Sheets 3 through 6). The new track on the south side of the ROW would connect to the existing track just east of Tapo Street, such that the new track east of Tapo Street and existing track west of Tapo Street form Main Track 2.

At the Simi Valley Station, the existing and proposed station platforms would be shifted eastward to maintain approximately 19-foot track centers for 150 feet beyond the platforms to accommodate the inter-track fence. The 19-foot track spacing through station limits would avoid placing track curvature within Hidden Ranch Drive, avoid the need to obtain more ROW through the station, and maintain clearance from the Arroyo Simi Bike Path. The 780-foot length of the existing platform would be maintained, and the new platform would be a minimum of 680 feet. The existing track alignment would be maintained at four of the at-grade crossings (Sequoia Avenue, Tapo Canyon Street, Tapo Street, and East Los Angeles Avenue), but the track alignment would be shifted approximately 6 inches south at the Hidden Ranch Drive crossing to eliminate curvature between the platform and the crossing.

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Figure 2-1. Regional Location

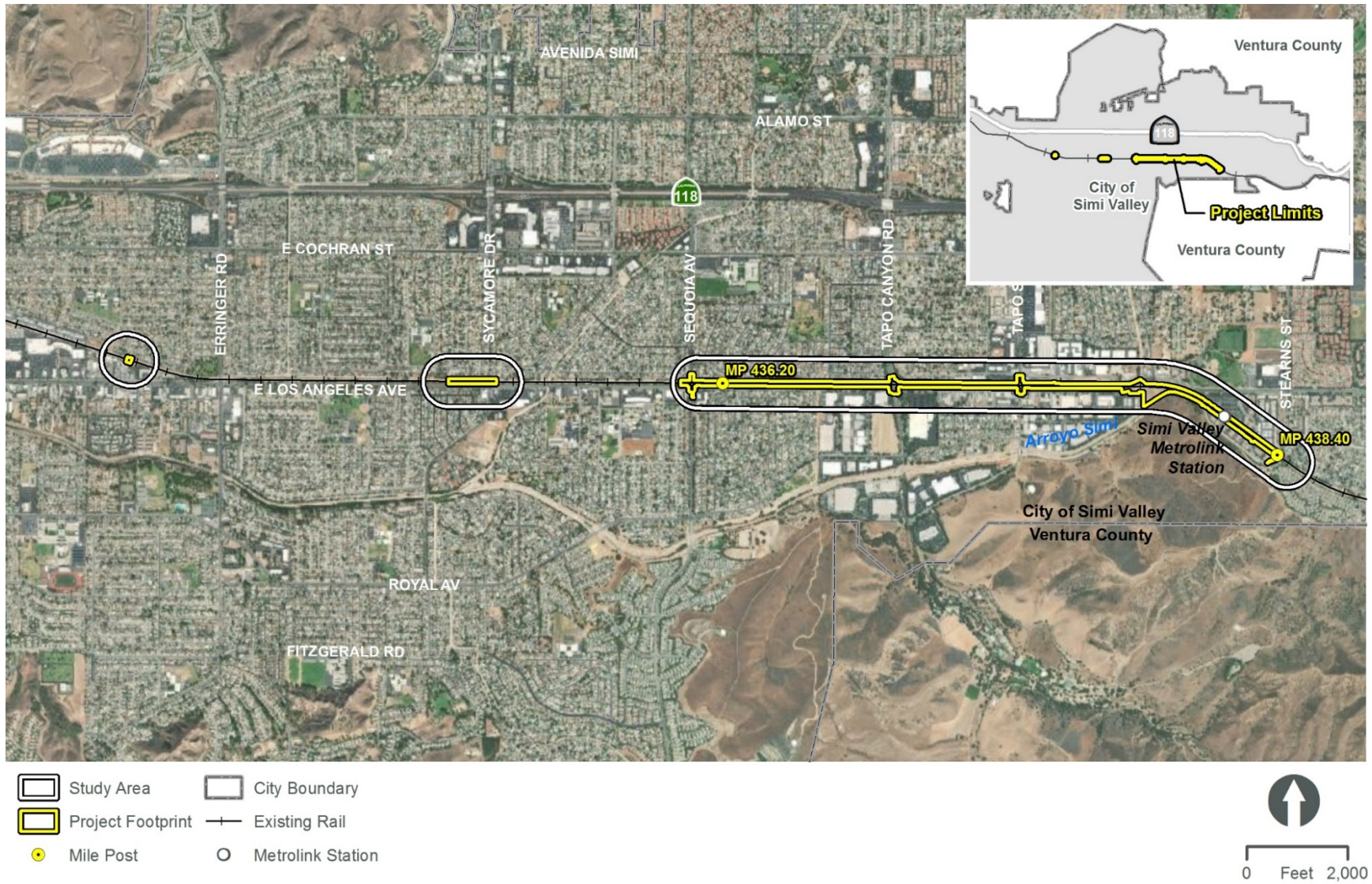


- Project Location
- County Boundary
- Metrolink Station
- Interstate
- Metrolink Line
- Highway



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Figure 2-2. Project Location



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Figure 2-3. Project Detail Map
 (Sheet 1 of 9)

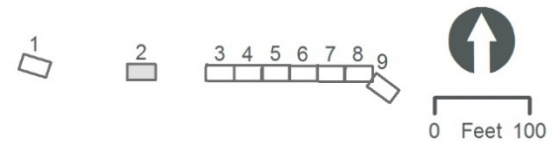


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Figure 2-3. Project Detail Map
 (Sheet 2 of 9)



-  Project Footprint
-  Existing Track
-  Mile Post
-  Grade Crossing Design
-  Rail ROW
-  Proposed Signal Equipment
-  Removal of Existing Signal Equipment



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Figure 2-3. Project Detail Map
 (Sheet 3 of 9)



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Figure 2-3. Project Detail Map
 (Sheet 4 of 9)



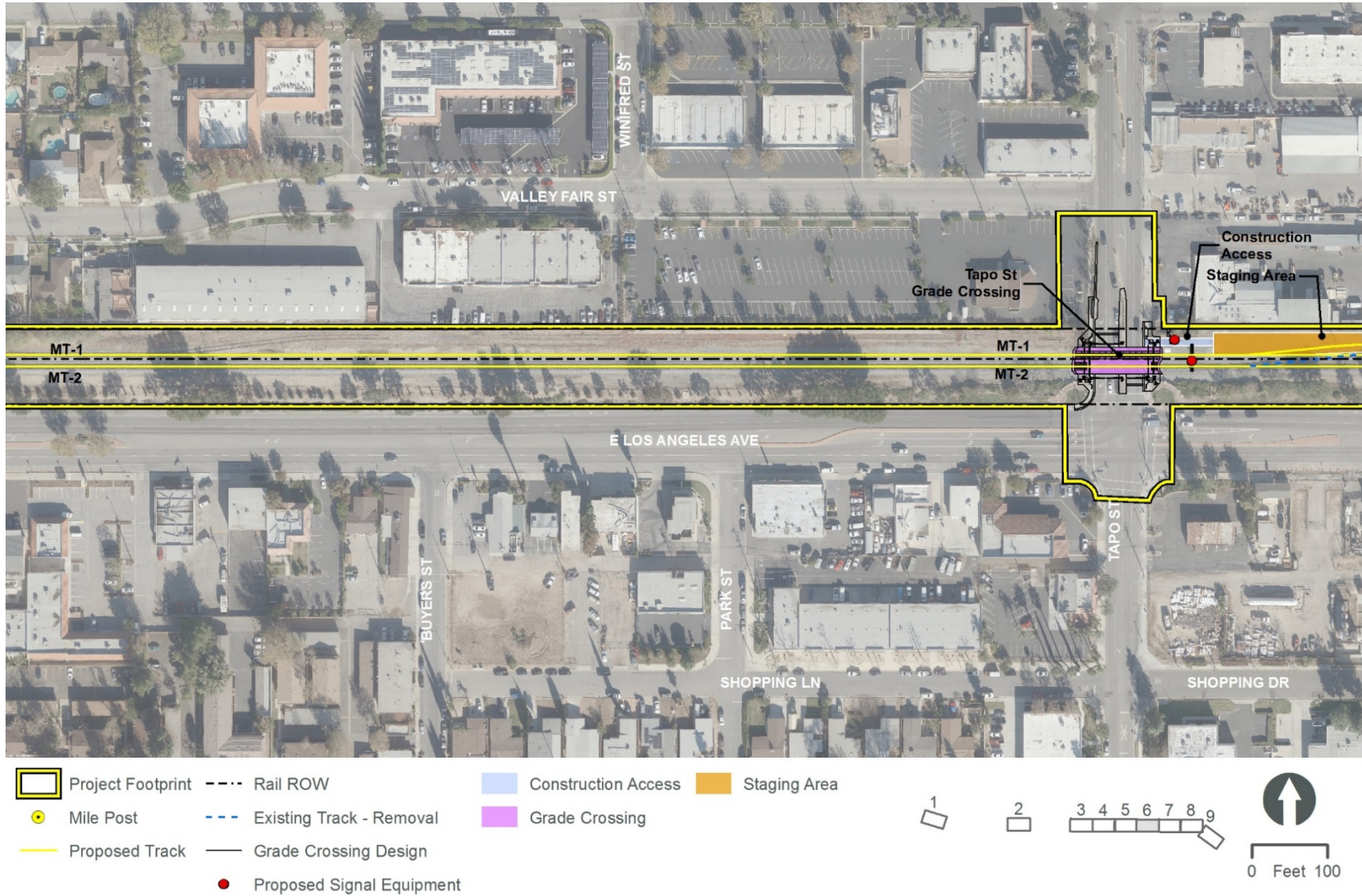
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Figure 2-3. Project Detail Map
 (Sheet 5 of 9)



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Figure 2-3. Project Detail Map
 (Sheet 6 of 9)



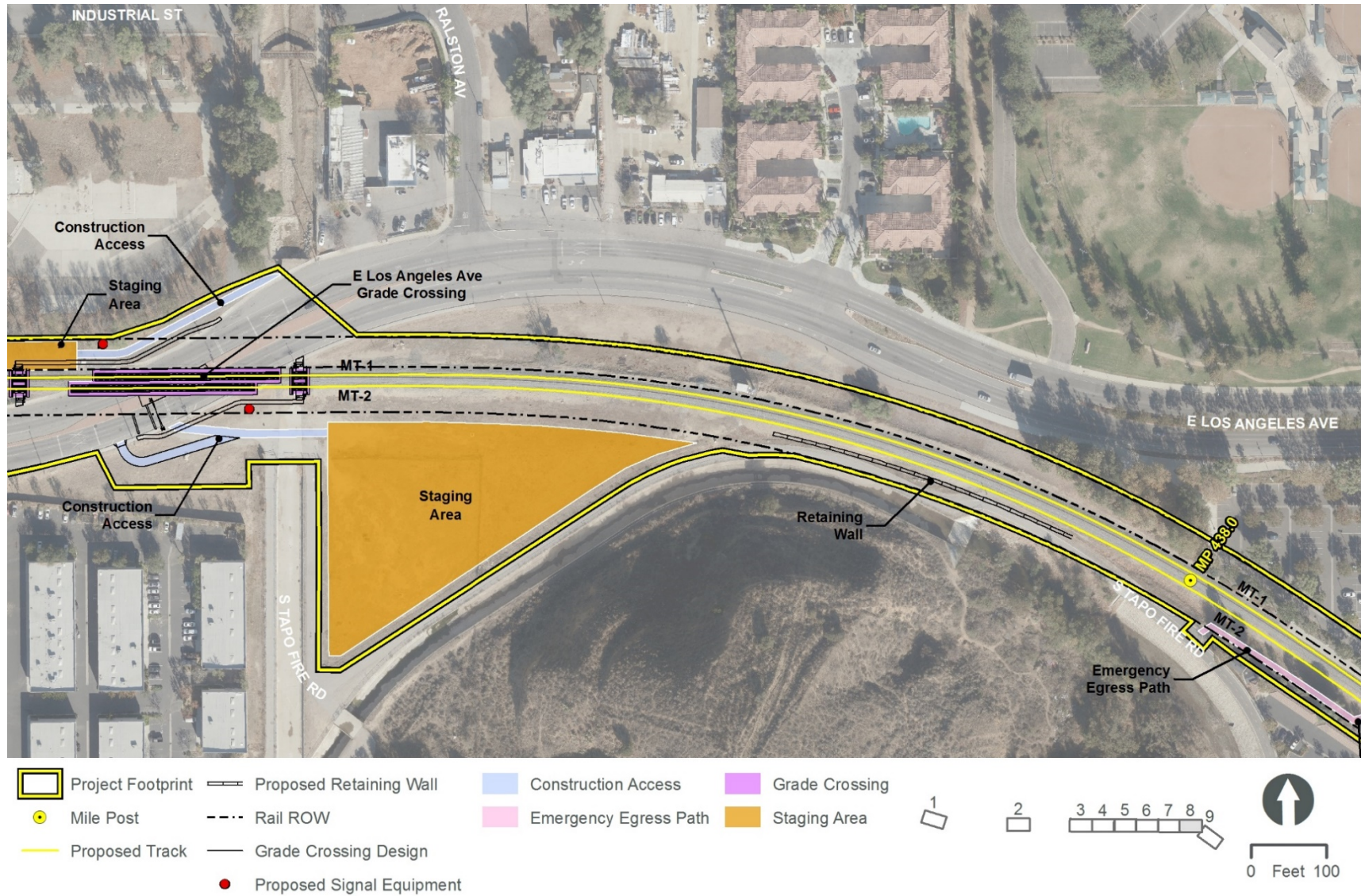
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Figure 2-3. Project Detail Map
 (Sheet 7 of 9)



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Figure 2-3. Project Detail Map
 (Sheet 8 of 9)



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Figure 2-3. Project Detail Map
 (Sheet 9 of 9)



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At-Grade Crossings

The Project would include improvements and related supplemental safety measures at existing at-grade crossings within the Project study area to facilitate future quiet zone implementation. These at-grade crossing improvements would generally include the accommodation of the second mainline track and related ancillary improvements, except for at the Sequoia at-grade crossing, where a second track would not be constructed. These improvements would include sidewalk and pavement reconstruction; installation of pedestrian gates and warning signals; roadway restriping; pedestrian channelization; construction, of or modification to, a raised roadway median; and installation/modification of the roadway gates. Each at-grade crossing is further described below.

- **Sequoia Avenue.** The improvements at Sequoia Avenue include those described above, except a second mainline track crossing would not be constructed. A new railroad signal house would also be installed at this location.
- **Tapo Canyon Street.** In addition to the improvements described above, a new signal house would also be constructed at Tapo Canyon Street.
- **Tapo Street.** In addition to the improvements described above, a new signal house would also be constructed at Tapo Street.
- **East Los Angeles Avenue.** In addition to the improvements described above, a new signal house would also be constructed at East Los Angeles Avenue. Additionally, the existing access roads leading from the Arroyo Simi Bike Path would be modified to accommodate the proposed pedestrian improvements and the existing retaining wall located in the southeast quadrant would be reconstructed.
- **Hidden Ranch Drive.** In addition to the improvements described above, a new signal house would also be constructed at Hidden Ranch Drive.

Railroad Signals and Communications

The track improvements would require new track panels, signals, and warning devices at the existing at-grade crossings. At Sequoia Avenue, Tapo Canyon Road, and Tapo Street, the presignals on the southwest quadrants would be located outside of the exit gates to improve visibility for southbound (SB) traffic approaching the tracks. Additional safety improvements would include adding flashers to the warning devices for vehicles turning onto Tapo Canyon Road from East Los Angeles Avenue. Maintenance access to the new signal houses would also be added.

The Project would include two new CPs. At the western limit of the new track, CP Sequoia would be installed approximately 0.20 mile east of Sequoia Avenue. CP Arroyo would be installed directly west of Arroyo Simi. The existing signal at Tapo Street would be modified to accommodate the second track. In order to account for the proximity to the new CP Sequoia, the existing signal at Sycamore Drive would be relocated approximately 700 feet west. To reduce headway times to CP Strathern, an additional signal would be added approximately 2,000 feet west of Erringer Road.

At each new signal site, the following improvements would be installed:

- 6-foot by 8-foot signal house with a security fence
- Wayside signal
- 40-foot positive train control antenna tower

- 200-amp Southern California Edison power meter pedestal
- Underground railroad fiber optic cable with vault

Simi Valley Station Enhancements

The existing Simi Valley Station consists of one side platform on the north side of the main line track with custom passenger canopies, a ticket vending machine, and an at-grade parking lot north of the platform. The existing path of travel to the station extends south from a bus stop at the platform entrance and from the adjacent parking lot. Station access would remain unchanged under the Project.

The Project would change the existing platform configuration by demolishing approximately 250 feet of the curved portion of the platform on the west end of the station. To maintain the 780-foot length of the existing platform, the remaining platform would be extended approximately 95 feet to the west and 155 feet to the east, so that the entire length of the platform is along tangent track (i.e., where the track is not curved). At the east end of the station, a pedestrian underpass would be installed with ramp and stair access. The new underpass would provide access to a new, second platform on the south side of the main line tracks, which would be a minimum of 680 feet long.

The Project would match the existing platform amenities (canopies, seating, signage, and lighting), and would include aesthetic treatments to the ramps, stairs, and underpass walls and ceiling. The Project would implement crime prevention through environmental design principles, which would include natural surveillance, natural access control, territorial reinforcement, and maintenance. The proposed station improvements would also meet National Fire Protection Association standards by providing passengers egress capabilities to vacate the platform within 4 minutes and to reach a point of safety within 6 minutes.

Drainage Improvements

The Project would include the following drainage improvements:

- Underdrains at the at-grade crossings where ditches are infeasible, and between the tracks at the platforms with the subgrade sloping toward the underdrain;
- Trackside ditches between at-grade crossings;
- Storm drain extensions or encasements where existing drainage systems intersect the proposed track infrastructure; and
- A new pump station at the low point of the pedestrian underpass at Simi Valley Station.

The proposed drainage improvements would be coordinated with the City of Simi Valley to provide the new track infrastructure with adequate flood protection and to maintain existing drainage patterns to the extent practical throughout the Project study area.

Structures

The Project would construct a new pedestrian underpass, stairs, and ramps at the Simi Valley Station. The design of the pedestrian underpass would be in accordance with the most recent SCRRRA design criteria manual. The proposed structure type is a precast concrete box structure, composed of sections, selected to minimize construction track windows (i.e., minimize impacts on train schedules). The internal dimensions of the proposed structure would be 14 feet wide by 9 feet, 10 inches high. The depth of cover (i.e., amount of fill between the structure and the tracks) would be minimized to

facilitate construction and maintenance of the structure, as well as to reduce the length of approach ramps and the number of stairs needed to reach the station platform. The design of the approach ramp retaining wall would be in accordance with the most recent SCRRA design criteria manual.

Utilities

Utilities within the Project study area include gas lines, electrical power lines, communications/fiber optic lines, and municipal water and sewer pipes. The Project would result in multiple utility conflicts, and impacted utilities would either be protected in place, extended, or relocated. Specifically, the Project may require relocation or casing extensions for the following utilities:

- Crimson Pipeline gasoline pipeline (6- to 12-inch pipeline) at East Los Angeles Avenue and Topo Canyon Road
- Southern California Edison electrical transmission and distribution (above and below ground) lines at Sequoia Avenue, East Los Angeles Avenue, Goddard Avenue, and Hidden Ranch Drive
- City of Simi Valley sewer and potable water lines at Sequoia Avenue, East Los Angeles Avenue, Tapo Canyon Road, and Hidden Ranch Drive
- Southern California Gas natural gas lines at Sequoia Avenue, East Los Angeles Avenue, Tapo Street, Arroyo lane, and Hidden Ranch Drive
- Golden State Water Company potable water lines at Sequoia Street, Goddard Avenue, Hietter Avenue, Tapo Street, and East Los Angeles Avenue
- Fiber optic cables parallel to the ROW owned by the following communications companies:
 - Lumen Technologies (formerly CenturyLink)
 - Verizon
 - AT&T
 - Sprint
 - Wilshire Communication
 - Charter Communications

Potholing would be implemented in conjunction with final design to verify the locations of all existing utilities within the Project study area and to determine which utilities would be protected in place and which utilities would require relocation or abandonment.

Right-of-Way

The majority of proposed improvements (including the proposed pedestrian underpass at the Simi Valley Station) would be constructed within the railroad ROW Figure 2-3 (Sheet 1 through 9). The northern 40 feet of ROW are owned by SCRRA, while the southern 60 feet are owned by UPRR. The ramp and stair access from the undercrossing to the new platform would extend south of the existing UPRR ROW and require acquisition of a portion of the adjacent multifamily parcel.

Roadway improvements would generally be located outside of the railroad ROW and within the City of Simi Valley's roadway ROW. Improvements at Hidden Ranch Drive would require acquisition of portions of two adjacent multifamily parcels at the southern and western corners of the crossing. Additionally, potential sidewalk crossing improvements that would extend into unimproved areas of private properties near Hidden Ranch Drive would require temporary construction easements in order to access the proposed CP Arroyo area.

To connect with the Arroyo Simi Bike Path, the egress path from the new platform may also extend south of the ROW onto the Ventura County Flood Control District's property, or it could extend further west to connect to the bike path within UPRR ROW. Final ROW needs would be confirmed during final design.

2.4.2 Construction

Project construction would begin as early as April 2022 and would last for approximately 19 months. The work would be accomplished over four phases, beginning with construction of the pedestrian underpass and new platform at the station, and ending with reconstruction of 250 feet of the existing station platform. Construction may involve multiple crews working simultaneously and would include equipment such as track stabilizers, excavators, front-end loaders, rubber-tired dozers, cranes, haul trucks, and water trucks.

Construction would generally proceed in the following four phases over the 19-month construction schedule:

- Phase 1
 - A number of third-party utility lines would be relocated in order to make way for the improvements of the Project. These utilities include fiber optic lines that run parallel to the Project study area, as well as many crossing utilities, such as water, gas, electric, and others. The relocations are due to the addition of a second main track, added second platform, inadequate depth underneath the rail, or insufficient casing length that spans the entire railroad ROW.
- Phase 2
 - Construct structures, including the pedestrian underpass and new platform at Simi Valley Station and the retaining wall near the Arroyo Simi Bike Path
 - Construct track work, including the new main track (Main Track 1) outside of grade crossing limits and new turnouts, while maintaining service on the existing track
 - Construct signal houses, signal foundations, grade crossing warning devices and associated conduits
- Phase 3
 - Construct track and roadway improvements at the at-grade crossings
 - Transfer rail service onto the newly constructed Main Track 1; take the existing track out of service for the second main track (Main Track 2) improvements
 - Finish installing signals at new CP Sequoia and CP Arroyo
- Phase 4
 - Construct Main Track 2 track and upgrade existing from timber to concrete ties

- Activate Main Track 2 track into service
- Remove and reconstruct 250 feet of the existing Simi Valley Station platform and finish upgrading any remaining timber ties to concrete ties

Material and equipment imports and construction personnel would access the Project study area via walking points from the nearest fence access or staging area. Potential construction access points and staging areas have been identified within the ROW and are shown on Figure 2-3 (Sheets 3, 6, 7, 8, and 9). An additional staging area outside the ROW was identified between East Los Angeles Avenue and Arroyo Simi, as shown on Figure 2-3. The final construction staging area locations would be confirmed during design development.

Construction activities would be scheduled during time frames that allow for exclusive track occupancy by construction crews to minimize effects on Metrolink operations. To the greatest extent possible, construction activities would be scheduled during the daytime; however, nighttime work would be required to maximize construction work windows. The Project would also include weekend work when Metrolink service is reduced.

Prior to construction, coordination would be needed with regard to the bike trail and potential temporary construction closures. Dewatering is expected to be necessary during construction of the pedestrian underpass at the station and would be completed in accordance with applicable regulations.

2.4.3 Operations

The Project would improve safety and reliability on the VCL and at the Simi Valley Station and adds capacity to accommodate growth of Metrolink commuter train operations through the Project study area. The Project would install safety improvements at four grade crossings and create a new 2.20-mile double track segment through southern Simi Valley, which would reduce the distance of single-track territory through the Project study area. Passenger trains running along the Ventura Subdivision on the Metrolink VCL would be able to use this double track segment to pass uninterrupted through the Project study area rather than idling at the nearest location with two tracks, waiting for trains in the opposite direction to cross the single-track segment.

Project operation are projected to start in 2025. The Project would also provide faster, more frequent, and more reliable service by increasing on-time performance. As the population of Southern California increases, it is likely that additional passenger rail service would be added to the Metrolink VCL in the future to ease traffic congestion on freeways and local streets.

With Project implementation, as well as completion of the other VCL projects, Metrolink service would increase, providing up to 48 revenue trains per day on the VCL (Table 2-1).

Table 2-1. 2019 Schedules and Proposed Service Schedules: Ventura County Line

Schedule	Existing Service (2019)			Proposed Service (2025)		
	To Los Angeles ^a	From Los Angeles ^a	All	To Los Angeles ^a	From Los Angeles ^a	All
Weekday (total VCL)	16	17	33	24	24	48
Weekday (extending through Project study area) ^b	7	7	14	19	19	38
Saturday	0	0	0	1 ^c	1 ^c	2 ^c
Sunday	0	0	0	0	0	0

Notes:

^a VCL trains to or from Los Angeles originate or terminate in Ventura, Moorpark, Chatsworth, or Burbank. Future service includes trains originating and terminating in Van Nuys.

^b Existing and proposed VCL train counts for the Project only consider train service extending to Moorpark and Ventura (i.e., traversing the Project study area).

^c VCL Saturday service would operate between April and October only.

2.5 Purpose of the Traffic Study

The purpose of the traffic study is to:

- Document the methodologies used to complete the analysis and thresholds applied to determine significance;
- Identify and report potential traffic impact and temporary improvements/mitigations during construction associated with various construction phases;
- Identify potential detour routes to reroute the traffic at railroad crossings during construction;
- Document the Project-related traffic impacts and benefits on the existing roadway system, traffic volumes, and truck movements within the study area based on the proposed improvements as part of this Project; and
- Identify potential traffic safety issues, traffic impacts and mitigations (if needed) associated with the long-term operations of the build alternative.

2.6 Project Analysis Conditions

The traffic impact analysis was conducted for the following scenarios:

- Existing conditions (2020)
- Construction year (2022) conditions
- Opening year (2024) – no build conditions
- Opening year (2024) – build conditions
- Future year (2045) – no build conditions
- Future year (2045) – build conditions

2.6.1 Existing Conditions (2020)

Under the existing conditions, the Project study area intersections are analyzed based on existing roadway geometries. The railroad crossings are analyzed based on the existing train crossing timings and frequency. For the purposes of analysis, traffic data from 2019 was selected to characterize existing conditions.

2.6.2 Construction Year (2022) Conditions

The construction of the Project would be conducted in three phases.

Construction Phase 1

Under the construction year (2022) Phase 1 condition, the proposed Project improvements would be constructed at the Tapo Canyon Road crossing. To facilitate construction, the railroad crossing would be temporarily closed to vehicular traffic along Tapo Canyon Road, and traffic would be detoured to Sycamore Drive, Sequoia Avenue, and Tapo Street via East Los Angeles Avenue.

Construction Phase 2

Under the construction year (2022) Phase 2 condition, the proposed Project improvements would be constructed at the Tapo Street and Hidden Ranch Drive crossings. At the Tapo Street crossing, temporary closures to vehicular traffic would be required to facilitate construction. Traffic would be temporarily detoured to Tapo Canyon Road, Sequoia Avenue, and Stearns Street via East Los Angeles Avenue.

The railroad crossing at Hidden Ranch Drive would be constructed in phases to maintain one lane of traffic at the crossing, including emergency vehicle access. Emergency access could also be provided by a gated alley way/fire lane between Oak Knolls Road east of Hidden Ranch Drive.

Construction Phase 3

Under the construction year (2022) Phase 3 condition, the proposed Project improvements would be constructed at the East Los Angeles Avenue crossing. Construction would require the temporary closure of the railroad crossing at East Los Angeles Avenue to vehicular traffic. Traffic along East Los Angeles Avenue would be temporarily detoured to State Route 118 via Sequoia Avenue, Tapo Canyon Road, Tapo Street, and Stearns Street.

2.6.3 Opening Year (2024) Conditions

Opening Year (2024) – No Build Condition

Under the opening year (2024) no build conditions, the Project improvements would not be implemented; however, the ambient growth is applied to the existing volumes to develop volumes for the opening year 2024 to analyze the intersections. This condition includes all the improvements at the Project study area intersections, which are planned to be completed by the year 2024.

Opening Year (2024) – Build Condition

Under the opening year (2024) build conditions, the proposed Project improvements would be implemented. There would be no changes in the traffic volumes at all study intersections when compared to the opening year (2024) no build conditions; however, due to double-tracking, the

frequency of trains would increase, resulting in more frequent gate closures at the crossings during peak periods.

2.6.4 Future Year (2045) Conditions

Future Year (2045) – No Build Conditions

Under the future year (2045) no build conditions, the proposed Project improvements would not be implemented; however, the ambient growth is applied to the existing volumes to develop volumes for the future year 2045 to analyze the intersections. This condition includes all the improvements at the Project study area intersections, which are planned to be completed by the year 2030, according to City of Simi Valley General Plan Mobility and Infrastructure Element (City of Simi Valley 2012b).

Future Year (2045) – Build Conditions

Under the future year (2045) build conditions, the proposed Project improvements would be implemented. There would be no changes in the traffic volumes at all study intersections when compared to the future year (2045) no build conditions; however, due to double-tracking, the frequency of trains would increase, resulting in more frequent gate closures at the crossings during peak periods.

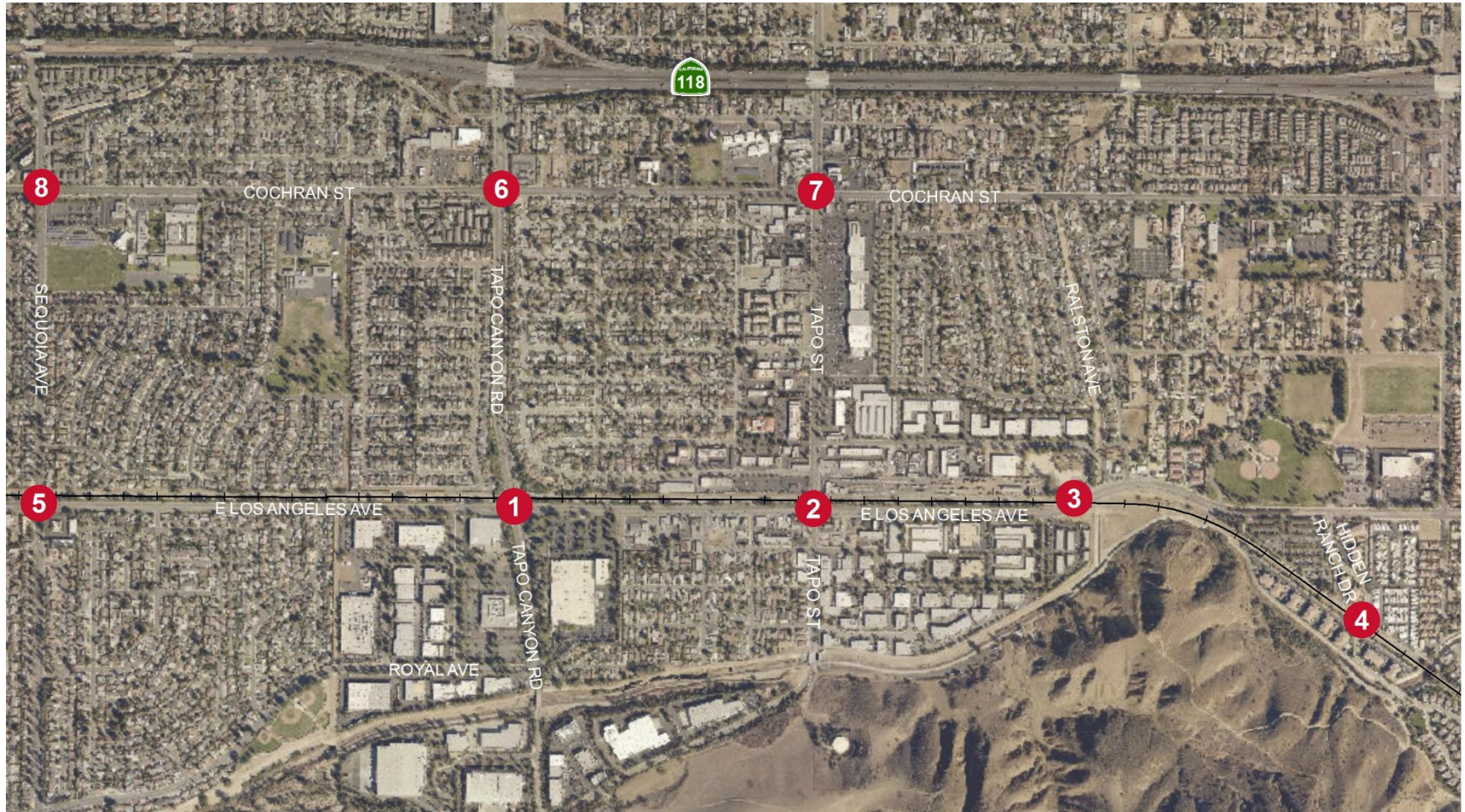
2.7 Study Intersections

The immediate vicinity of the Project is defined as the area which extends from east of Tapo Canyon Road to west of the crossing at East Los Angeles Avenue and the north-south limits of the Hidden Ranch Drive crossing.


The traffic study analyzes eight study intersections which represent key locations throughout the study area that were identified for the analysis and are presented on Figure 2-4.

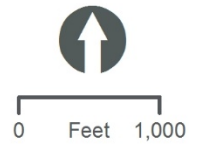
1. Tapo Canyon Road and East Los Angeles Avenue
2. Tapo Street and East Los Angeles Avenue
3. East Los Angeles Avenue and Railway Crossing
4. Hidden Ranch Drive and Railway Crossing
5. Sequoia Avenue and East Los Angeles Avenue
6. Tapo Canyon Road and Cochran Street
7. Tapo Street and Cochran Street
8. Sequoia Avenue and Cochran Street

Figure 2-4. Study Intersections in Traffic Study Area



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 Study Intersections



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2.8 Report Organization

This report was organized into the following sections:

- **Analysis methodology** – This section describes the methodologies and thresholds utilized to analyze roadway and intersection traffic conditions.
- **Existing conditions** – This section describes the existing traffic network within the Project study area and provides analysis results for existing traffic conditions.
- **Construction year (2022) traffic conditions** – This section describes the future network within the area, forecasts opening year volumes, and provides an analysis of construction impacts of the Project.
- **Opening year (2024) traffic conditions** – This section forecasts 2024 volumes and provides analysis results for both no build and build conditions.
- **Future year (2045) Project design year traffic conditions** – This section forecasts future volumes and provides analysis results for both no build and build conditions.
- **Senate Bill 743 – Vehicle Miles Traveled (VMT)** – This section describes the details of Senate Bill 743, evaluation of traffic impact under VMT, and the city’s approach to adopting Senate Bill 743.
- **Significant Impact Evaluation and Conclusions** – This section identifies the criteria for significant impact and summarizes the results.

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3 Analysis Methodology

The traffic analysis was performed in accordance with the City of Simi Valley Traffic Impact Analysis guidelines published in the City of Simi Valley General Plan Environmental Impact Report, Chapter 4.16 (City of Simi Valley 2012b). Detailed information on the roadway segment, as well as intersection analysis methodologies, standards, and thresholds are discussed in this section.

3.1 Highway and Intersection Capacity Standards

The following sections present the level of service (LOS) standards and thresholds used in the analysis of transportation network performance. Per the City of Simi Valley guidelines for intersections, an LOS C or better is considered satisfactory. The intersections operating at LOS D, LOS E, and LOS F are considered unsatisfactory. The definitions for the range of levels of service for signalized and stop sign-controlled intersections under the *Highway Capacity Manual, 6th Edition* (HCM) are listed in Table 3-1 and Table 3-2, respectively (Transportation Research Board 2020).

For this study, HCM delay-based methodology utilizing Synchro 10 software was used for calculating the intersection LOS. Since the Project would be considered an infrastructure-related project, such as transit, rail, bicycle, and roadway improvements, HCM delay-based methodology was utilized. Per city guidelines, HCM delay-based methodology is acceptable for infrastructure improvement projects.

3.2 Intersection Level of Service Standards and Thresholds

This section presents the methodologies used to perform peak hour intersection capacity analyses for signalized and unsignalized intersections.

3.2.1 Signalized Intersection Analysis

The analysis of signalized intersections utilized the operational analysis procedure as outlined in the HCM. This method defines LOS in terms of delay, or more specifically, average stopped delay per vehicle. Delay is a measure of the driver and/or passenger discomfort, frustration, fuel consumption, and lost travel time. This methodology uses 1,900 vehicles per hour per lane as the maximum saturation flow rate at an intersection. This saturation volume is adjusted to account for lane width, on-street parking, pedestrians, traffic composition (i.e., percentage trucks), and shared-lane movements (i.e., through and right-turn movements originating from the same lane). The LOS criteria used for this technique are described in Table 3-1.

Table 3-1. Signalized Intersection Level of Service

Average Stopped Delay Per Vehicle (seconds)	LOS Characteristics
<10.0	LOS A describes operations with very low delay. This occurs when progression is extremely favorable, and most vehicles do not stop at all. Short cycle lengths may also contribute to the low delay.
>10 – 20.0	LOS B describes operations with generally good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.

Table 3-1. Signalized Intersection Level of Service

Average Stopped Delay Per Vehicle (seconds)	LOS Characteristics
>20 – 35.0	<i>LOS C</i> describes operations with higher delays, which may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
>35 – 55.0	<i>LOS D</i> describes operations with high delay, resulting from some combination of unfavorable progression, long cycle lengths, or high volumes. The influence of congestion becomes more noticeable, and individual cycle failures are noticeable.
>55 – 80.0	<i>LOS E</i> is considered the limit of an acceptable delay. Individual cycle failures are frequent occurrences.
>80.0	<i>LOS F</i> describes a condition of excessively high delay, considered unacceptable to most drivers. This condition often occurs when arrival flow rates exceed the <i>LOS D</i> capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes to such delay.

Source: Transportation Research Board 2020

Notes:

LOS=level of service

3.2.2 Unsignalized Intersection Analysis

Unsignalized intersections, including two-way and all-way stop-controlled intersections, were analyzed using the HCM (Section 10) unsignalized intersection analysis methodology. The LOS for a two-way, stop-controlled intersection is determined by the computed or measured control delay and is defined for each minor movement. Table 3-2 summarizes the LOS criteria utilized for unsignalized intersection analyses.

Table 3-2. Unsignalized Intersection Level of Service

Average Control Delay (seconds/vehicle)	LOS
≤10	A
>10 and ≤15	B
>15 and ≤25	C
>25 and ≤35	D
>35 and ≤50	E
>50	F

Source: Transportation Research Board 2020

Notes:

LOS=level of service

3.2.3 City of Simi Valley's Threshold of Significance Criteria

The City of Simi Valley's adopted policy for minimum vehicular operating condition standards for intersections aims to achieve a LOS C or better during peak hour periods. LOS C was used as the threshold criteria for this study; however, if the intersection is an LOS C or better, other significant traffic impacts may cause the threshold criteria to be breached.

3.2.4 Queuing Methodology

Due to the close spacing of intersections near grade crossings, vehicular queues potentially back up and spill over to adjacent intersections. In addition, insufficient storage lengths result in the blockage of through movements for some approaches. In both of these situations, operating conditions at intersection or adjacent grade crossing locations would be negatively impacted. For these critical movements, 95th percentile queue length was reported and compared with the available storage length to determine the adequacy of available storage in accommodating traffic volumes. The 95th percentile queue length identifies the movements with insufficient storage and other safety issues due to back up at grade crossing. These issues are identified and addressed during the development of the Project.

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4 Existing Conditions

This section describes the existing roadway network, explains the existing traffic counts collected, and presents an analysis of the eight study intersections within the study area. For the purposes of analysis, a combination of traffic data collected from 2018 and 2019 was used to characterize existing conditions (2020) and LOS.

4.1 Traffic Counts

The weekday intersection peak period counts were collected in March 2018 and November 2019. Peak hour counts for each intersection were determined as the highest four consecutive 15-minute interval volumes derived from peak period counts. Traffic count worksheets are provided in Appendix A. Figure 4-1 represents the existing AM and PM peak hour intersection turning movement volumes and Figure 4-2 displays the existing intersections lane configurations.

4.2 Existing Roadway Network

This section describes key roadway segments and existing facilities in the vicinity of the Project.

4.2.1 Tapo Canyon Road

Tapo Canyon Road is a major north-south primary arterial roadway per the City of Simi Valley General Plan Mobility and Infrastructure Element (City of Simi Valley 2012b). It has two through lanes in each direction and a posted speed limit of 45 miles per hour. Tapo Canyon Road intersects with the major streets such as East Los Angeles Avenue, Cochran Street, and Alamo Street. Tapo Canyon Road crosses the railroad track at a distance of 90 feet north of the intersection of Tapo Canyon Road and East Los Angeles Avenue. On-street parking is permitted at a few locations along the street.

4.2.2 East Los Angeles Avenue

East Los Angeles Avenue is identified as an east-west primary arterial roadway with two through lanes in each direction per the City of Simi Valley General Plan Mobility and Infrastructure Element (City of Simi Valley 2012b). It has a posted speed limit of 45 miles per hour. It intersects major connecting roadways such as Tapo Canyon Road, Tapo Street, and Sycamore Drive. East Los Angeles Avenue crosses the railroad track at a distance of 2300 feet east of the Tapo Street and East Los Angeles Avenue intersection. Class II bicycle lanes are provided on both sides of the roadway.

4.2.3 Tapo Street

Tapo Street is identified as a north-south secondary arterial per the City of Simi Valley General Plan Mobility and Infrastructure Element (City of Simi Valley 2012b). It consists of two through lanes in each direction between East Los Angeles Avenue and the northern city limits and one through lane in each direction south of East Los Angeles Avenue. It intersects major roadways such as East Los Angeles Avenue, Alamo Street, and Cochran Street. Tapo Street crosses the railroad track at a distance of 92 feet north of the intersection of Tapo Street and East Los Angeles Avenue. It has a posted speed limit of 40 miles per hour. There are no bicycle lanes along Tapo Street. On-street parking is permitted at a few locations along the street.

4.2.4 Sequoia Avenue

Sequoia Avenue is identified as a north-south secondary arterial per the City of Simi Valley General Plan Mobility and Infrastructure Element (City of Simi Valley 2012b). It consists of two through lanes in each direction between southern City limits and northern city limits. It intersects major roadways such as East Los Angeles Avenue, Alamo Street, and Cochrane Street. Sequoia Avenue crosses the railroad track at a distance of 92 feet north of the intersection of Sequoia Avenue and East Los Angeles Avenue. It has a posted speed limit of 45 miles per hour. There are no bicycle lanes along Sequoia Avenue. On-street parking is permitted at a few locations along the street.

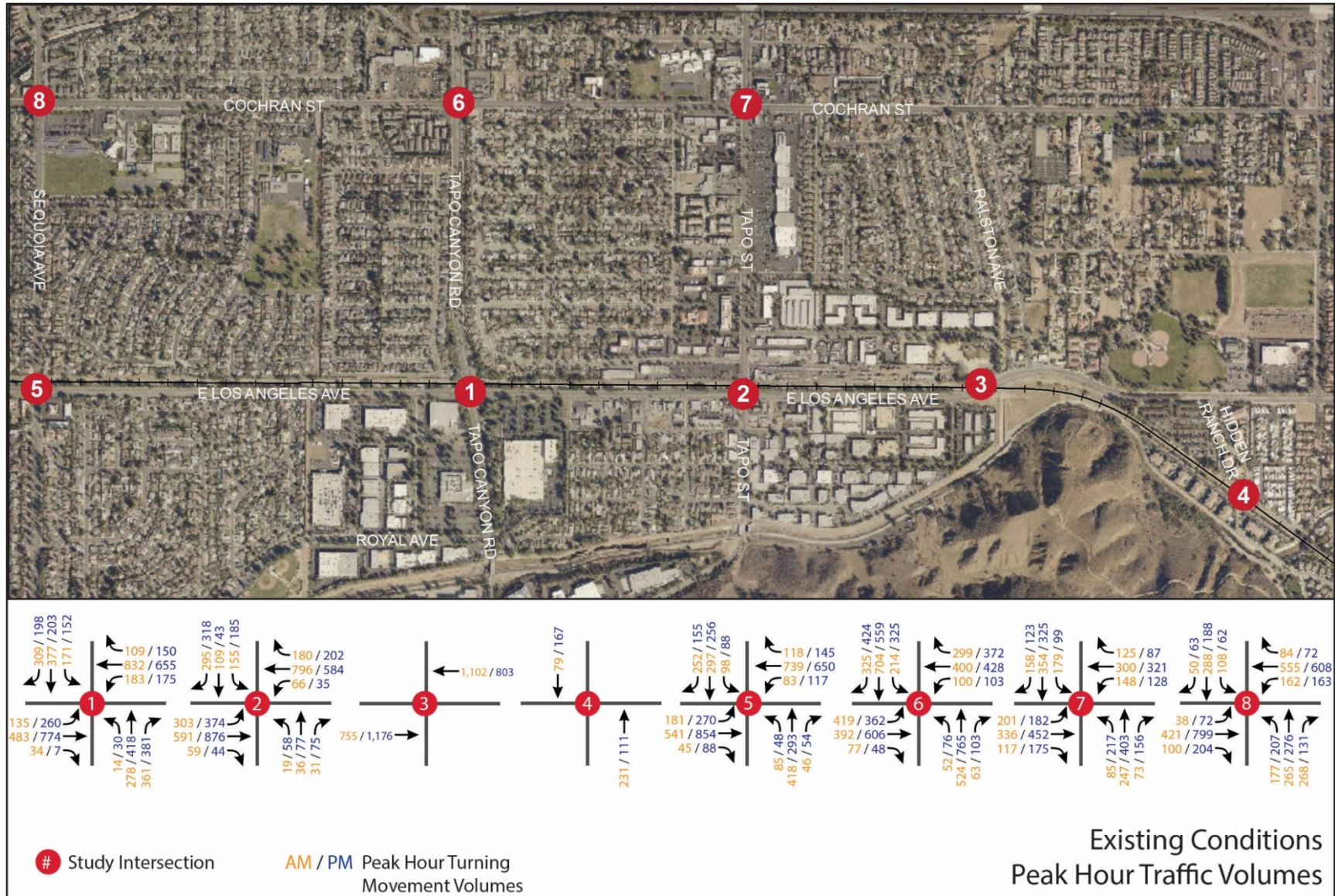
4.2.5 Cochran Street

Cochran Street is identified as an east-west secondary arterial per the City of Simi Valley General Plan Mobility and Infrastructure Element (City of Simi Valley 2012b). It consists of two through lanes in each direction between Los Alamos Canyon Road and Yosemite Avenue. It intersects major roadways such as Tapo Canyon Road, Sequoia Road, Tapo Street, and Sycamore Drive. It has a posted speed limit of 40 miles per hour. There are bicycle lanes along some parts of Cochran Street. On-street parking is permitted at a few locations along the street.

4.2.6 Hidden Ranch Drive

Hidden Ranch Drive is identified as a local roadway with one lane in each direction per the City of Simi Valley General Plan Mobility and Infrastructure Element (City of Simi Valley 2012b). It has a posted speed limit of 30 miles per hour. There are no bicycle lanes along the Hidden Ranch Drive, and on-street parking is not permitted.

Figure 4-1. Existing Peak Hour Turning Movements



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Figure 4-2. Existing Intersection Lane Configuration



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4.3 Intersection Level of Service Analysis

Existing LOS analysis was conducted using the methodologies presented HCM 6th Edition in Chapter 39. The intersection LOS results are summarized below. The LOS worksheets for the existing conditions analysis are presented in Appendix B. Table 4-1 displays intersection LOS and average vehicle delay results for study area intersections under existing conditions. As shown in Table 4-1, all study area intersections operate at LOS C or better under existing conditions.

Table 4-1. Existing Peak Hour Level of Service Results

ID	Primary Street	Secondary Street/Crossing	Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Tapo Canyon Road	East Los Angeles Avenue	Signalized	26.7	C	33.5	C
2	Tapo Street	East Los Angeles Avenue	Signalized	28.3	C	22.7	C
3	East Los Angeles Avenue	Railway Crossing	Signalized	11.7	B	11.5	B
4	Hidden Ranch Drive	Railway Crossing	Signalized	10.9	B	9.5	A
5	Sequoia Avenue	East Los Angeles Avenue	Signalized	22.5	C	22.0	C
6	Tapo Canyon Road	Cochran Street	Signalized	32.7	C	30.3	C
7	Tapo Street	Cochran Street	Signalized	21.9	C	21.6	C
8	Sequoia Ave	Cochran Street	Signalized	26.7	C	22.8	C

Notes:

Bold indicates LOS D, E, or F

ID=Identification; LOS=level of service

4.3.1 Queuing Analysis

Under existing conditions, due to the close spacing of the at-grade crossings on Tapo Canyon Road and Tapo Street to the adjacent intersections on East Los Angeles Avenue south of the at-grade crossings, a potential exists for vehicular queues to back up and spill over to the adjacent intersection. In addition, insufficient northbound (NB) through storage lengths at the grade crossing could also result in the blockage of other intersection movements. For this critical movement, the 95th percentile queue length for existing peak hour conditions are reported in Table 4-2. There are no SB queuing issues identified at the grade crossings due to insufficient storage. However, due to a close limit line between intersection and the grade crossings for the SB lanes, safety issues are identified. The vehicles arriving at the intersection from the SB direction stop on the track due to closely spaced limit lines at the at-grade crossing; however, the existing preemption at the adjacent intersection would be able to clear the traffic on the track before closing the gates.

Table 4-2. Existing Condition Intersection Peak Hour Queuing Analysis

ID	Primary Street	Secondary Street	Control	95th Percentile Queue (feet)	
				AM	PM
1	Tapo Canyon Road	Railway Crossing	NB through lane	529	933
2	Tapo Street	Railway Crossing	NB through lane	524	704

Notes:

At-grade crossings are located close to intersections, hence storage is not reported for NB through lane direction.
 ID=Identification; NB=northbound

5 Construction Year (2022) Traffic Conditions

The future forecast was based on the Southern California Association of Government's Transportation Analysis Model that was modified specifically for the City of Simi Valley. Therefore, the land use and traffic circulation network for the no build conditions included all the model assumptions in the annual growth rate that was applied to the intersections to develop the construction year (2022) volumes. No new land use or traffic circulation network changes were assumed.

5.1 Forecasting Methodology

A key component of the future forecast within the Project study area is the incorporation of post-processing, which refines future year (2045) forecast volumes for study intersections. The volumes developed for this study used existing count data (2019), which was updated using 2.33 percent per year ambient growth for construction year (2022), opening year (2024), and future year (2045). The post-processing methodology applied the annual growth rate between the existing year and future year model to the existing count volume in order to develop the future year forecast volumes. Intersection peak hour turning movement volumes were estimated based on the difference between existing and future year intersection peak hour link volumes from the model and compared those to existing turning movement count volumes.

The growth factor of 2.33 percent per year was derived from the City of Simi Valley General Plan Environmental Impact Report (City of Simi Valley 2012a).

5.2 Construction Year (2022) Condition

The Project would be constructed in three phases in the year 2022. The first phase involves the construction of a railroad crossing at Tapo Canyon Road, relocation of the existing railroad signal at Sycamore Drive (at MP 435.13), and installation of a new signal approximately 2,000 feet west of Erringer Road (at MP 433.96). Phase 2 involves the construction of railroad crossings at Tapo Street and Hidden Ranch Drive, and Phase 3 involves the construction of a railroad crossing at East Los Angeles Avenue. Based on the phasing of the construction, the three separate detour routes were developed and analyzed to evaluate the traffic impact at the study area intersections. There is no detour for Hidden Ranch Drive, and as such, improvements to the grade crossing would be done in phases.

5.2.1 Phase 1

The key components of this phase are the construction of an additional railroad track adjacent to the existing railroad track, relocation of an existing railroad signal at Sycamore Drive (at MP 435.13), and installation of a new railroad signal approximately 2,000 feet west of Erringer Road (at MP 433.96). Upon contractor's notice of construction, the railroad crossing would be closed to vehicular traffic along Tapo Canyon Road and the traffic along this street would be detoured to Sequoia Avenue and Tapo Street via East Los Angeles Avenue. The relocation of the existing signal at Sycamore Drive would not require any roadway closures during construction. Figure 5-1 shows the details of the detour plan for this condition.

Phase 1 Construction Year (2022) Intersection Volume Forecast

The traffic volumes were redistributed based on the detours explained previously for Phase 1. Detailed redistribution of traffic caused by the construction year (2022) for Phase 1 is presented in Appendix C. The post-processed intersection peak hour forecast was balanced to preserve conservation of flow between adjacent intersections. Figure 5-2 presents intersection turning movements under construction year (2022) Phase 1 for AM and PM peak periods.

Phase 1 Intersection Level of Service Analysis

The LOS analysis was conducted using the methodologies described in Section 3. The intersections LOS results are discussed below. The LOS worksheets for this scenario are presented in Appendix D. Table 5-1 displays intersection LOS and average vehicle delay results for study area intersections under construction year (2022) Phase 1 condition. As shown in Table 5-1, all study intersections operate at LOS C or better with the exception of Tapo Canyon Road at Cochran Street during AM and PM peak hours.

Table 5-1. Construction Year (2022) Phase 1 Peak Hour Level of Service Results

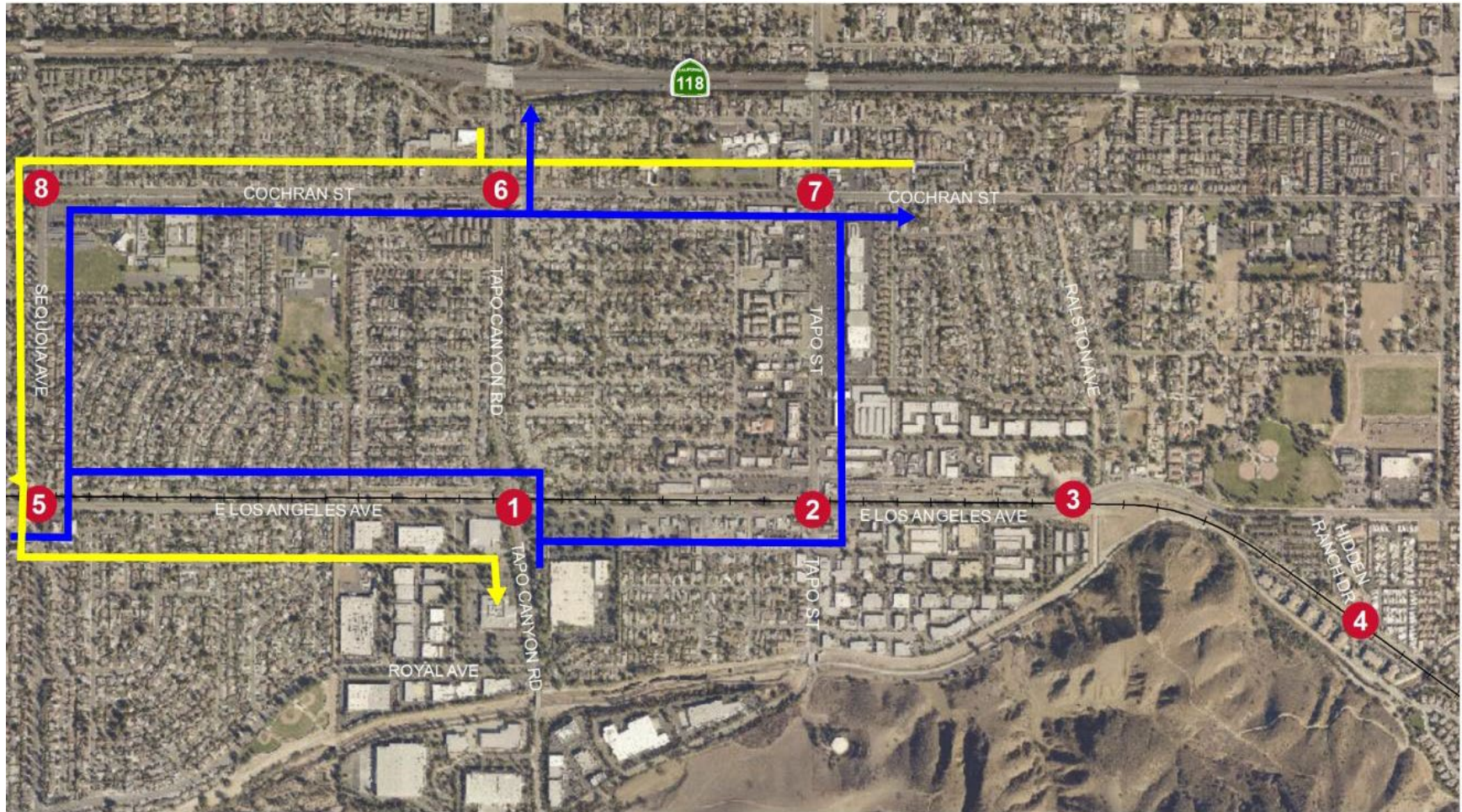
ID	Primary Street	Secondary Street/Crossing	Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Tapo Canyon Road	East Los Angeles Avenue	Signalized	34.4	C	29.5	C
2	Tapo Street	East Los Angeles Avenue	Signalized	30.1	C	26.0	C
3	East Los Angeles Avenue	Railway Crossing	Signalized	12.1	B	12.4	B
4	Hidden Ranch Drive	Railway Crossing	Signalized	12.5	B	9.6	A
5	Sequoia Avenue	East Los Angeles Avenue	Signalized	22.5	C	25.9	C
6	Tapo Canyon Road	Cochran Street	Signalized	45.8	D	51.4	D
7	Tapo Street	Cochran Street	Signalized	28.0	C	30.6	C
8	Sequoia Ave	Cochran Street	Signalized	24.9	C	29.4	C

Notes:

Bold indicates LOS D, E, or F

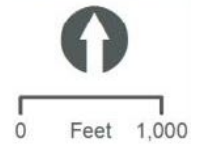
ID=identification; LOS=level of service

Figure 5-1. Tapo Canyon Road Crossing Full Closure – Vehicular Traffic Detour Plan for Construction Year (2022) Phase 1



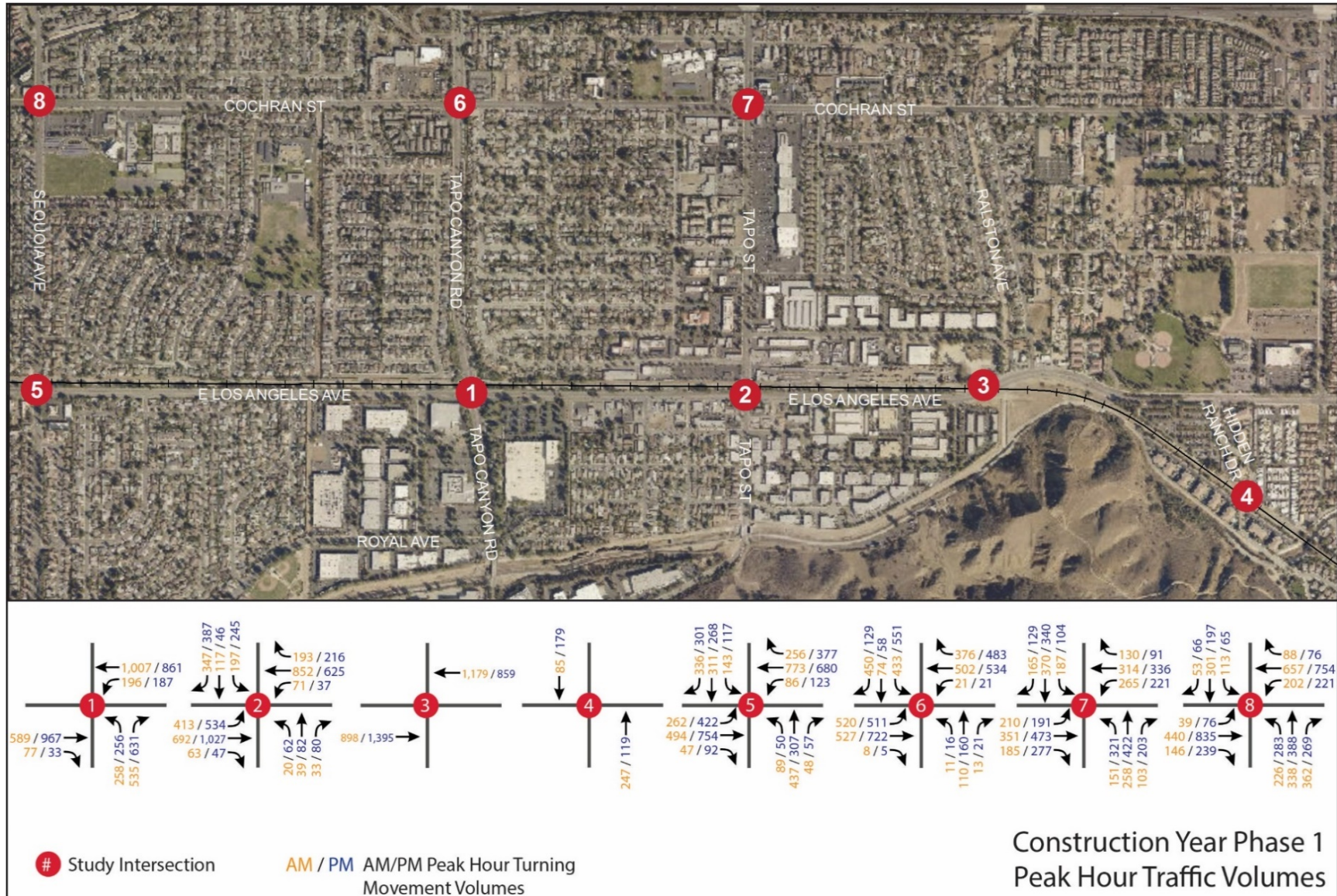
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-  Outbound Detour
-  Inbound Detour



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Figure 5-2. Construction Year (2022) Phase 1 Condition Turning Movement Volumes



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5.2.2 Phase 2

The key component of this phase is the construction of an additional track at the Tapo Street railroad crossing and the Hidden Ranch Drive railroad crossing. Upon contractor's notice of construction, the railroad crossing along Tapo Street would be fully closed for vehicular traffic. The traffic along the Tapo Street railroad crossing would be detoured to Tapo Canyon Road, Sequoia Avenue, and Stearns Street via East Los Angeles Avenue. The railroad crossing at Hidden Ranch Drive would be constructed in phases to maintain one lane of traffic to maintain local residential and emergency vehicle access. In addition, emergency access to this area could be provided by a gated alley way/fire lane between Oak Knolls Road east of Hidden Ranch Drive. Figure 5-3, shows the concept detour plan for Phase 2 conditions. Detailed redistribution of traffic caused by the construction year (2022) during Phase 2 is presented in Appendix C.

Phase 2 Construction Year (2022) Intersection Volume Forecast

The post-processed intersection peak hour forecast was balanced to preserve the conservation of flow between adjacent intersections. Figure 5-4 presents intersection turning movements under construction year (2022) Phase 2 condition for AM and PM peak periods.

Phase 2 Intersection Level of Service Analysis

The LOS analysis was conducted using the methodologies described in Section 3. The intersections LOS results are discussed below. The LOS worksheets for this scenario are presented in Appendix D. Table 5-2 displays intersection LOS and average vehicle delay results for Project study area intersections under construction year (2022) Phase 2 conditions. As shown in Table 5-2, all study intersections operate at LOS C or better, with the exception of the following:

- Tapo Canyon Road at East Los Angeles Avenue in AM and PM peak hours
- Tapo Canyon Road at Cochran Street in AM and PM peak hours

Table 5-2. Construction Year (2022) Phase 2 Level of Service Results

ID	Primary Street	Secondary Street/Crossing	Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Tapo Canyon Road	East Los Angeles Avenue	Signalized	<u>50.4</u>	<u>D</u>	<u>49.5</u>	<u>D</u>
2	Tapo Street	East Los Angeles Avenue	Signalized	31.2	C	28.2	C
3	East Los Angeles Avenue	Railway crossing	Signalized	12.1	B	12.6	B
4	Hidden Ranch Drive	Railway crossing	Signalized	12.5	B	9.6	A
5	Sequoia Avenue	East Los Angeles Avenue	Signalized	33.6	C	27.3	C
6	Tapo Canyon Road	Cochran Street	Signalized	<u>51.0</u>	<u>D</u>	<u>52.7</u>	<u>D</u>
7	Tapo Street	Cochran Street	Signalized	26.5	C	22.8	C

Table 5-2. Construction Year (2022) Phase 2 Level of Service Results

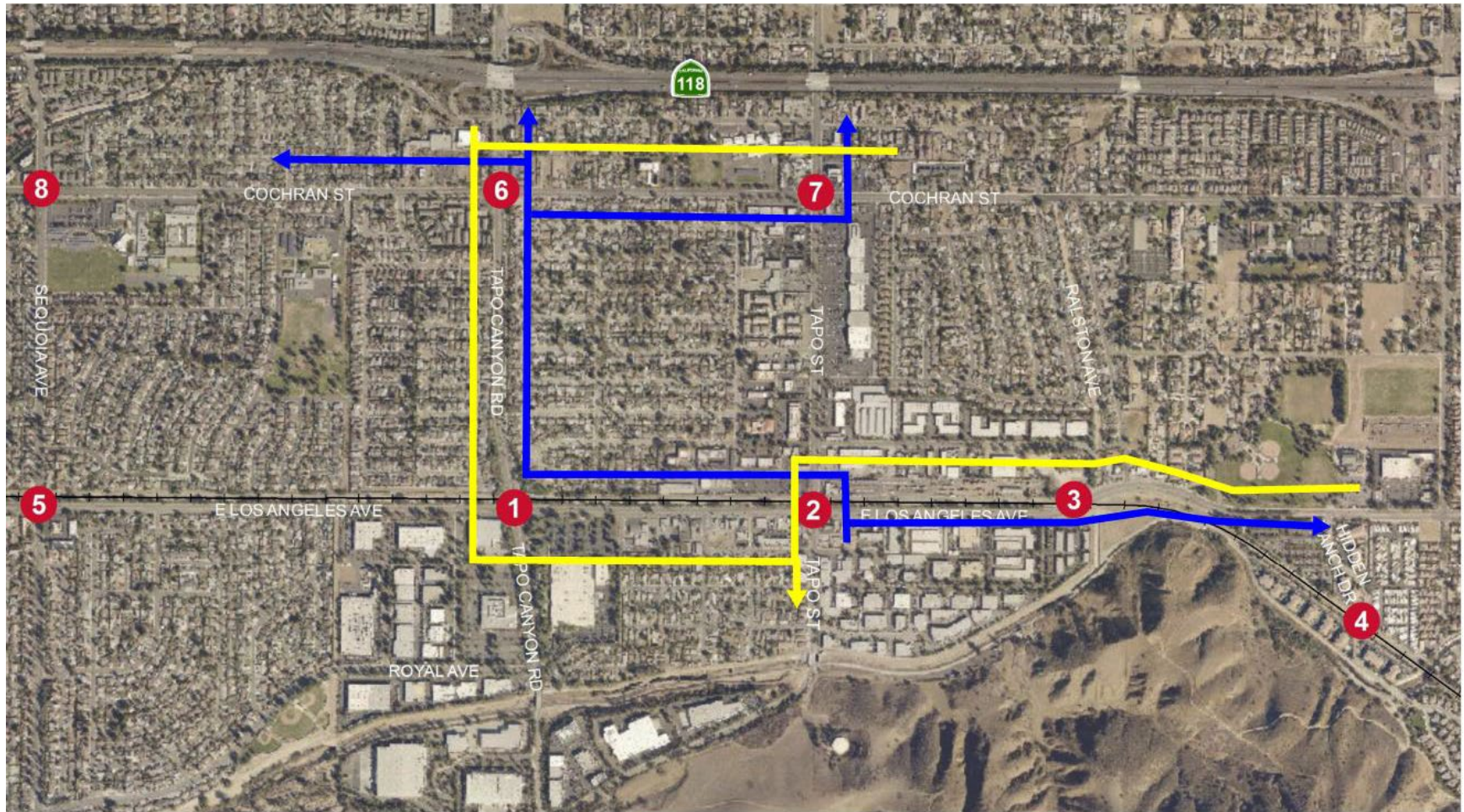
ID	Primary Street	Secondary Street/Crossing	Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
8	Sequoia Ave	Cochran Street	Signalized	17.4	B	31.8	C

Notes:

Bold indicates LOS D, E, or F

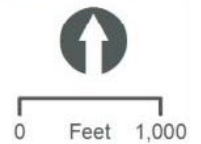
ID=identification; LOS=level of service

Figure 5-3. Tapo Street Crossing Full Closure – Vehicular Traffic Detour Plan for Construction Year (2022) Phase 2



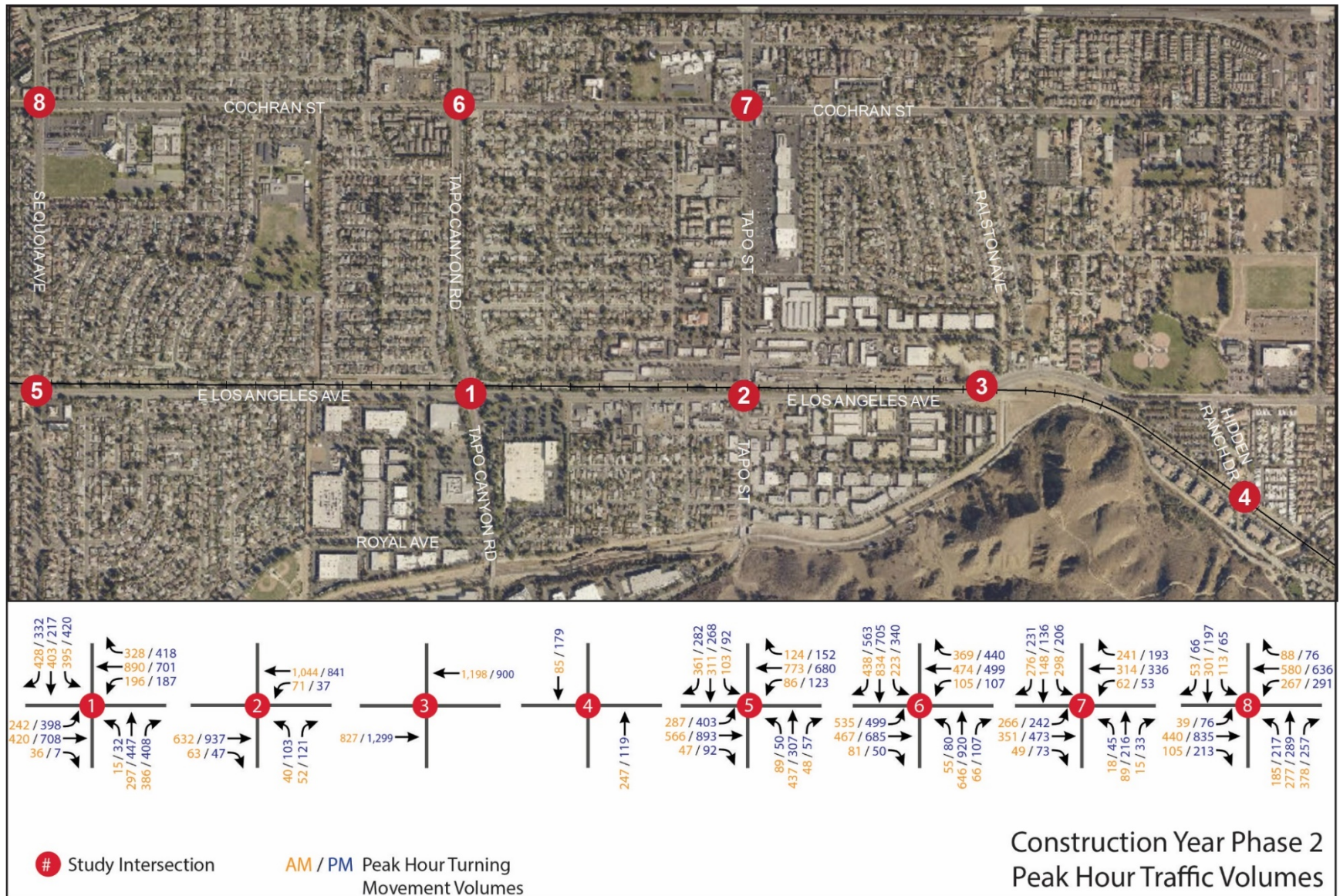
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-  Outbound Detour
-  Inbound Detour



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Figure 5-4. Construction Year (2022) Phase 2 Condition Turning Movement Volumes



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5.2.3 Phase 3

The key component of this phase is the construction of an additional track at the East Los Angeles Avenue railroad crossing. Upon the contractor's notice of construction, the railroad track would be closed to traffic. The vehicular traffic along East Los Angeles Avenue would be detoured to Cochran Street and State Route 118 via Sequoia Avenue, Tapo Canyon Road, Tapo Street, and Stearns Street. Figure 5-5 shows the concept of detour plans for Phase 3 of construction conditions. Detailed redistribution of traffic caused by the construction year (2022) is presented in Appendix C.

Phase 3 Construction Year (2022) Intersection Volume Forecast

The post-processed intersection peak hour forecast was balanced to preserve the conservation of flow between adjacent intersections. Figure 5-6 presents intersection turning movements under construction year (2022) Phase 3 condition for AM and PM periods.

Phase 3 Intersection Level of Service Analysis

The LOS analysis was conducted using the methodologies described in Section 3. The intersections LOS results are discussed below. The LOS worksheets for this scenario are presented in Appendix D. Table 5-3 displays intersection LOS and average vehicle delay results for study area intersections under construction year (2022) Phase 3 conditions. As shown in Table 5-3, all study intersections operate at LOS C or better with the exception of the following:

- Tapo Canyon Road at East Los Angeles Avenue in AM and PM peak hours
- Tapo Canyon Road at Cochran Street in AM and PM peak hours

Table 5-3. Construction Year (2022) Phase 3 Level of Service Results

ID	Primary Street	Secondary Street/Crossing	Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Tapo Canyon Road	East Los Angeles Avenue	Signalized	74.1	E	68.9	E
2	Tapo Street	East Los Angeles Avenue	Signalized	22.9	C	32.4	C
3	East Los Angeles Avenue	Railway crossing	—	—	—	—	—
4	Hidden Ranch Drive	Railway crossing	Signalized	12.5	B	9.6	A
5	Sequoia Avenue	East Los Angeles Avenue	Signalized	28.6	C	21.3	C
6	Tapo Canyon Road	Cochran Street	Signalized	50.5	D	53.7	D

Table 5-3. Construction Year (2022) Phase 3 Level of Service Results

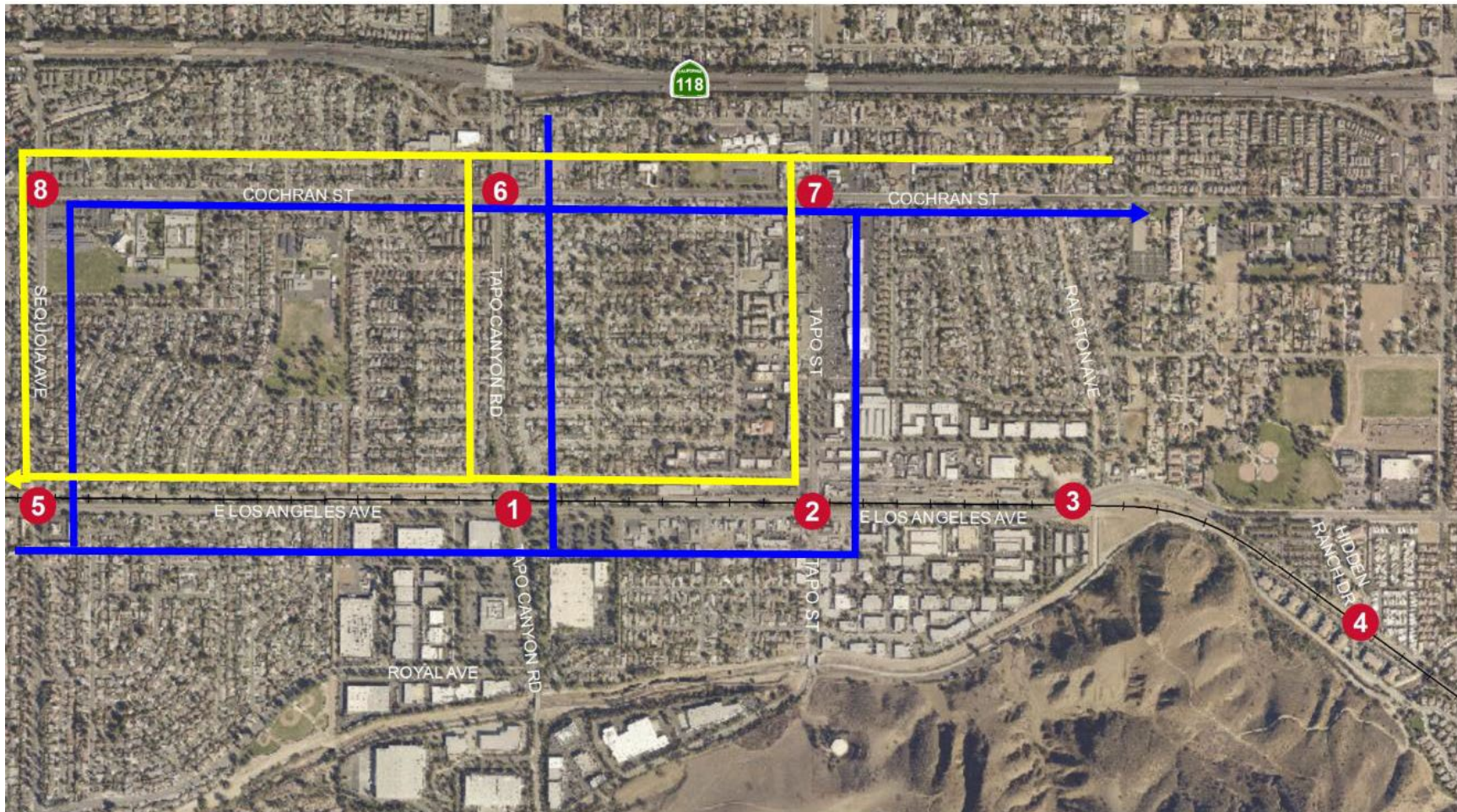
ID	Primary Street	Secondary Street/Crossing	Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
7	Tapo Street	Cochran Street	Signalized	28.3	C	28.4	C
8	Sequoia Ave	Cochran Street	Signalized	30.0	C	27.0	C

Notes:


Bold indicates LOS D, E, or F

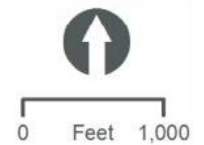
ID=identification; LOS=level of service

Figure 5-5. East Los Angeles Avenue Crossing Full Closure – Vehicular Traffic Detour Plan for Construction Year (2022) Phase 3



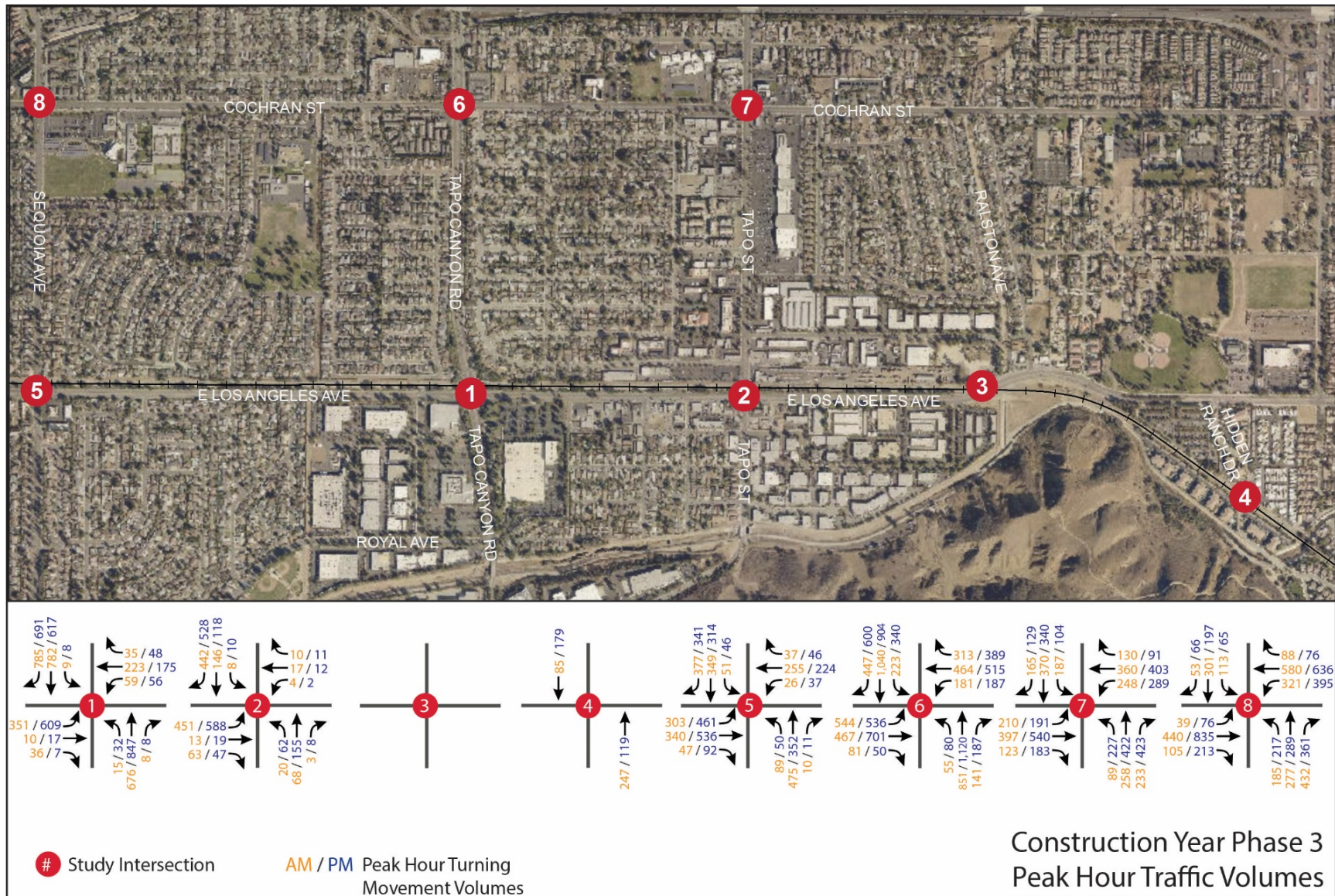
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-  Outbound Detour
-  Inbound Detour



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Figure 5-6. Construction Year (2022) Phase 3 Condition Turning Movement Volumes



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6 Opening Year (2024) Traffic Conditions

The traffic volumes for the opening year (2024) were forecast based on the methodology previously described in Section 5.1.

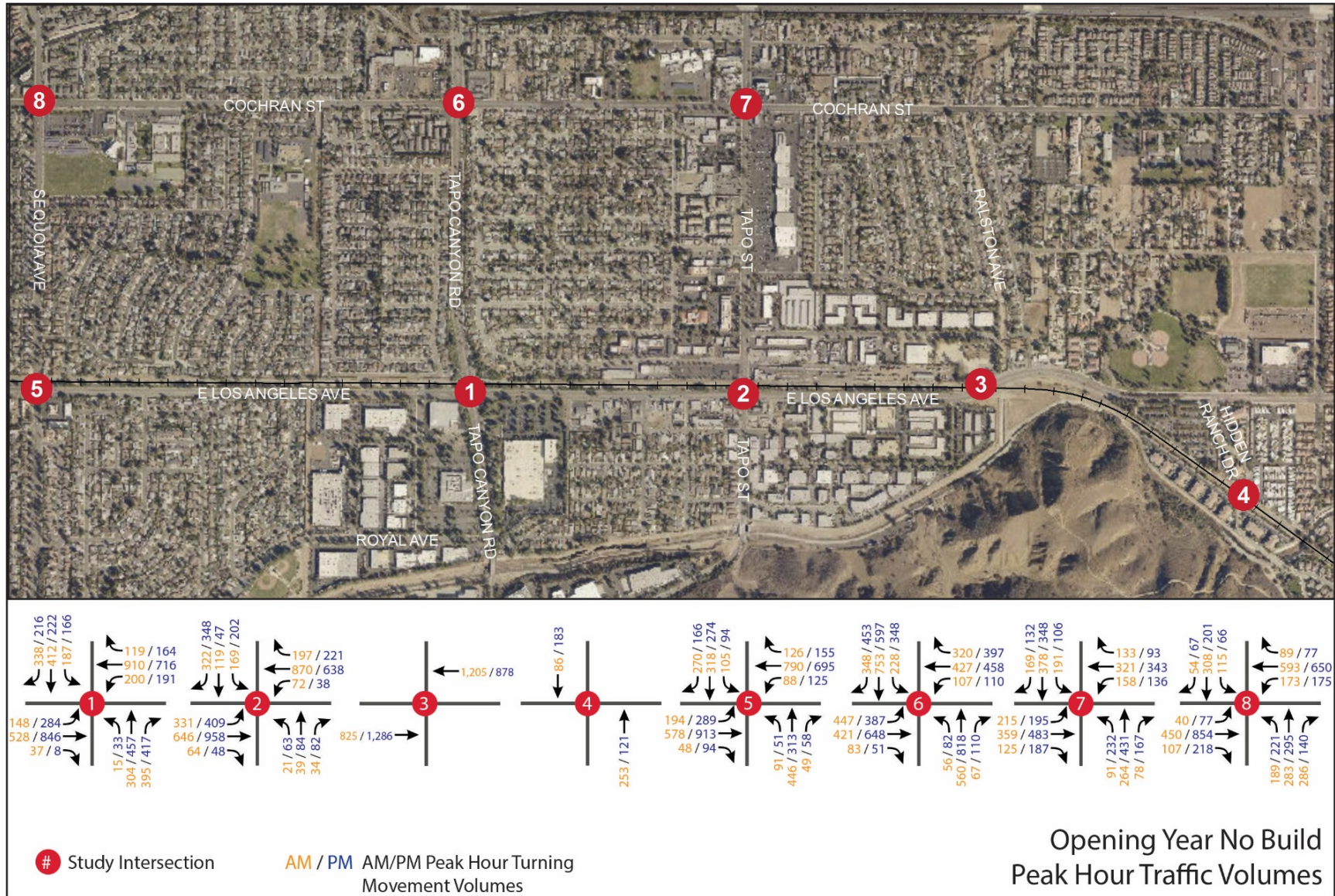
6.1 Opening Year No Build (2024) – Condition

6.1.1 Opening Year No Build (2024) Intersection Forecast

Post-processed intersection peak hour forecast volumes are used to derive the results for the opening year (2024) no build condition. The growth rate of 2.33 percent per year was derived based on the methodology described in Section 5.1. Table 6-1 presents the intersection turning movements under the opening year (2024) no build conditions.

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Figure 6-1. Opening Year (2024) No Build Peak Hour Turning Movements



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6.1.2 Intersection Level of Service Analysis

Table 6-1 displays intersection LOS and average vehicle delay results for Project study area intersections under opening year (2024) no build condition. The LOS worksheets for opening year (2024) no build condition analysis are presented in Appendix E. All study intersections would operate at an acceptable LOS C or better, except for the intersection of Tapo Canyon Road at Cochran Street in AM and PM peak hours.

Table 6-1. Opening Year (2024) No Build Peak Hour Level of Service Results

ID	Primary Street	Secondary Street/Crossing	Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Tapo Canyon Road	East Los Angeles Avenue	Signalized	33.6	C	34.7	C
2	Tapo Street	East Los Angeles Avenue	Signalized	33.7	C	27.1	C
3	East Los Angeles Avenue	Railway crossing	Signalized	12.4	B	11.4	B
4	Hidden Ranch Drive	Railway crossing	Signalized	12.6	B	7.7	A
5	Sequoia Avenue	East Los Angeles Avenue	Signalized	26.1	C	23.4	C
6	Tapo Canyon Road	Cochran Street	Signalized	50.6	D	45.0	D
7	Tapo Street	Cochran Street	Signalized	26.3	C	23.3	C
8	Sequoia Ave	Cochran Street	Signalized	28.7	C	28.1	C

Notes:

Bold indicates LOS D, E, or F

ID=identification; LOS=level of service

6.1.3 Queuing Analysis

In the opening year, and based on the existing close proximity of the at-grade crossings on Tapo Canyon Road and Tapo Street to the intersections to the south on East Los Angeles Avenue, the vehicular queues have the potential to back up and spill over to the adjacent intersection. In addition, insufficient NB through storage lengths at the at-grade crossing could also result in the blockage of other intersection movements. For this critical movement, the 95th percentile queue length for the opening year no build condition are reported in Table 6-2. There are no SB queuing issues identified at the grade crossings due to insufficient storage. However, due to close limit line between the intersection and the grade crossings for the SB lanes, safety issues are identified. The vehicles arriving at the intersection from a SB direction stop on the track due to closely spaced limit lines at the grade crossing. The existing preemption at the adjacent intersection would be able to clear the traffic on the existing track before closing the gates.

Table 6-2. Opening Year (2024) No Build Condition Intersection Peak Hour Queuing Analysis

ID	Primary Street	Secondary Street	Control	95th Percentile Queue (feet)	
				AM	PM
1	Tapo Canyon Road	Railway Crossing	NB through lane	576	1,054
2	Tapo Street	Railway Crossing	NB through lane	600	802

Notes:

At-grade crossings are located close to intersections; therefore, storage is not reported for NB through lane direction.

ID=identification; NB=northbound

6.2 Opening Year (2024) Build Condition

Opening year (2024) build condition results are based on the proposed reconfigurations and improvements due to the construction of an additional railroad track and the improvements mentioned in the City of Simi Valley General Plan.

6.2.1 Opening (2024) Build Intersection Forecast

For the opening year (2024) build condition, the Project is completed, and the general plan roadway and intersection improvements are in place. Due to additional track; train volume at the railroad crossing would increase along with vehicular volume. There would be no changes in the traffic volumes at all study intersections when compared to the opening year (2024) no build conditions; however, due to double-tracking, the frequency of trains would increase, resulting in more frequent gate closures at the crossing during peak periods.

6.2.2 Intersection Level of Service Analysis

Opening year (2024) build LOS analysis was conducted using the methodologies described in Section 2. The intersections LOS results are summarized below. The LOS worksheets for the opening year (2024) build analysis are presented in Appendix E. Table 6-3 presents intersection LOS and average vehicle delay results for the Project study area intersections under opening year (2024) build conditions. As shown in Table 6-3, all Project study area intersections would operate at an acceptable LOS C or better with the exception of the intersection of Tapo Canyon Road at Cochran Street in AM and PM peak hours.

Table 6-3. Opening Year (2024) Build Peak Hour Level of Service Results

ID	Primary Street	Secondary Street/Crossing	Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Tapo Canyon Road	East Los Angeles Avenue	Signalized	33.6	C	34.7	C

Table 6-3. Opening Year (2024) Build Peak Hour Level of Service Results

ID	Primary Street	Secondary Street/Crossing	Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
2	Tapo Street	East Los Angeles Avenue	Signalized	33.7	C	27.1	C
3	East Los Angeles Avenue	Railway crossing	Signalized	12.8	B	12.0	B
4	Hidden Ranch Drive	Railway crossing	Signalized	12.9	B	8.0	A
5	Sequoia Avenue	East Los Angeles Avenue	Signalized	26.1	C	23.4	C
6	Tapo Canyon Road	Cochran Street	Signalized	50.6	D	45.0	D
7	Tapo Street	Cochran Street	Signalized	26.3	C	23.3	C
8	Sequoia Ave	Cochran Street	Signalized	28.7	C	28.1	C

Notes:

Bold indicates LOS D, E, or F

ID=identification; LOS=level of service

6.2.3 Queuing Analysis

Due to the close spacing of the grade crossing and the intersections near the grade crossing, the vehicular queues have the potential to back up and spill over to the adjacent intersection. In addition, insufficient NB through storage lengths at the grade crossing can result in the blockage of other intersection movements. For NB through critical movement, the 95th percentile queue length for the opening year build condition are reported in Table 6-4. Movements with insufficient storage were identified to be addressed during the development of future improvements. There are no SB queuing issues identified at the grade crossings due to storage length; however, due to close limit line between the intersection and the grade crossings for the SB lanes, safety issues are identified. The vehicles arriving at the intersection from SB direction stops on the track due to closely spaced limit lines at grade crossing. However, the proposed pre-signal modifications with preemption at the adjacent intersection would be able to clear any additional traffic on the additional track before closing the gates. The relocation of existing railroad signal at Sycamore Drive (at MP 435.13) and installation of railroad signal west of Erringer Road (at MP 433.96) would not require any street closures. Therefore, no queuing issues are expected at these locations during opening year (2024) build condition.

Table 6-4. Opening Year (2024) Build Condition Intersection Peak Hour Queuing Analysis

ID	Primary Street	Secondary Street	Control	95th Percentile Queue (feet)	
				AM	PM
1	Tapo Canyon Road	Railway Crossing	NB through lane	601	1,095
2	Tapo Street	Railway Crossing	NB through lane	600	802

Notes:

At-grade crossings are located close to intersections; therefore, storage is not reported for NB through lane direction.

ID=identification; NB=northbound

7 Future Year (2045) Traffic Conditions

The volumes for the future year (2045) were forecast based on the methodology previously described in Section 5.1.

7.1 Future Year No Build (2045) – Condition

7.1.1 Future Year No Build (2045) Intersection Forecast

Post-processed intersection peak hour forecast volumes are used to derive the results for the future year (2045) no build condition. The growth rate of 2.33 percent per year for the 26 year period was derived based on the methodology described in Section 5.1. Figure 7-1 presents the intersection turning movements under future (2045) no build conditions.

7.1.2 Intersection Level of Service Analysis

Table 7-1 displays intersection LOS and average vehicle delay results for study area intersections under future year (2045) no build condition. The LOS worksheets for future year (2045) no build condition analysis are presented in Appendix F. All study intersections would operate at an acceptable LOS C or better, except for the following intersections:

- Tapo Canyon Road at East Los Angeles Avenue in AM and PM peak hours
- Sequoia Avenue at East Los Angeles Avenue in AM and PM peak hours
- Tapo Canyon Road at Cochran Street in AM and PM peak hours
- Sequoia Avenue at Cochran Street in AM and PM peak hours

Table 7-1. Future Year (2045) No Build Peak Hour Level of Service Results

ID	Primary Street	Secondary Street/Crossing	Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Tapo Canyon Road	East Los Angeles Avenue	Signalized	<u>103.2</u>	<u>F</u>	<u>108.9</u>	<u>F</u>
2	Tapo Street	East Los Angeles Avenue	Signalized	28.9	C	29.7	C
3	East Los Angeles Avenue	Railway crossing	Signalized	16.8	B	17.9	B
4	Hidden Ranch Drive	Railway crossing	Signalized	16.0	B	12.4	B
5	Sequoia Avenue	East Los Angeles Avenue	Signalized	<u>96.8</u>	<u>F</u>	<u>43.6</u>	<u>D</u>
6	Tapo Canyon Road	Cochran Street	Signalized	<u>93.7</u>	<u>F</u>	<u>114.2</u>	<u>F</u>

Table 7-1. Future Year (2045) No Build Peak Hour Level of Service Results

ID	Primary Street	Secondary Street/Crossing	Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
7	Tapo Street	Cochran Street	Signalized	28.7	C	30.7	C
8	Sequoia Ave	Cochran Street	Signalized	<u>76.1</u>	<u>E</u>	<u>65.2</u>	<u>E</u>

Notes:

Bold indicates LOS D, E, or F

ID=identification; LOS=level of service

7.1.3 Queuing Analysis

Due to the close spacing of the grade crossing and the intersections near the grade crossing, the vehicular queues potentially back up and spill over to the adjacent intersection. In addition, insufficient NB through storage lengths at the grade crossing can result in the blockage other intersection movements. For this critical movement, the 95th percentile queue length for the future year no build condition are reported in Table 7-2.

Table 7-2. Future Year (2045) No Build Condition Intersection Peak Hour Queuing Analysis

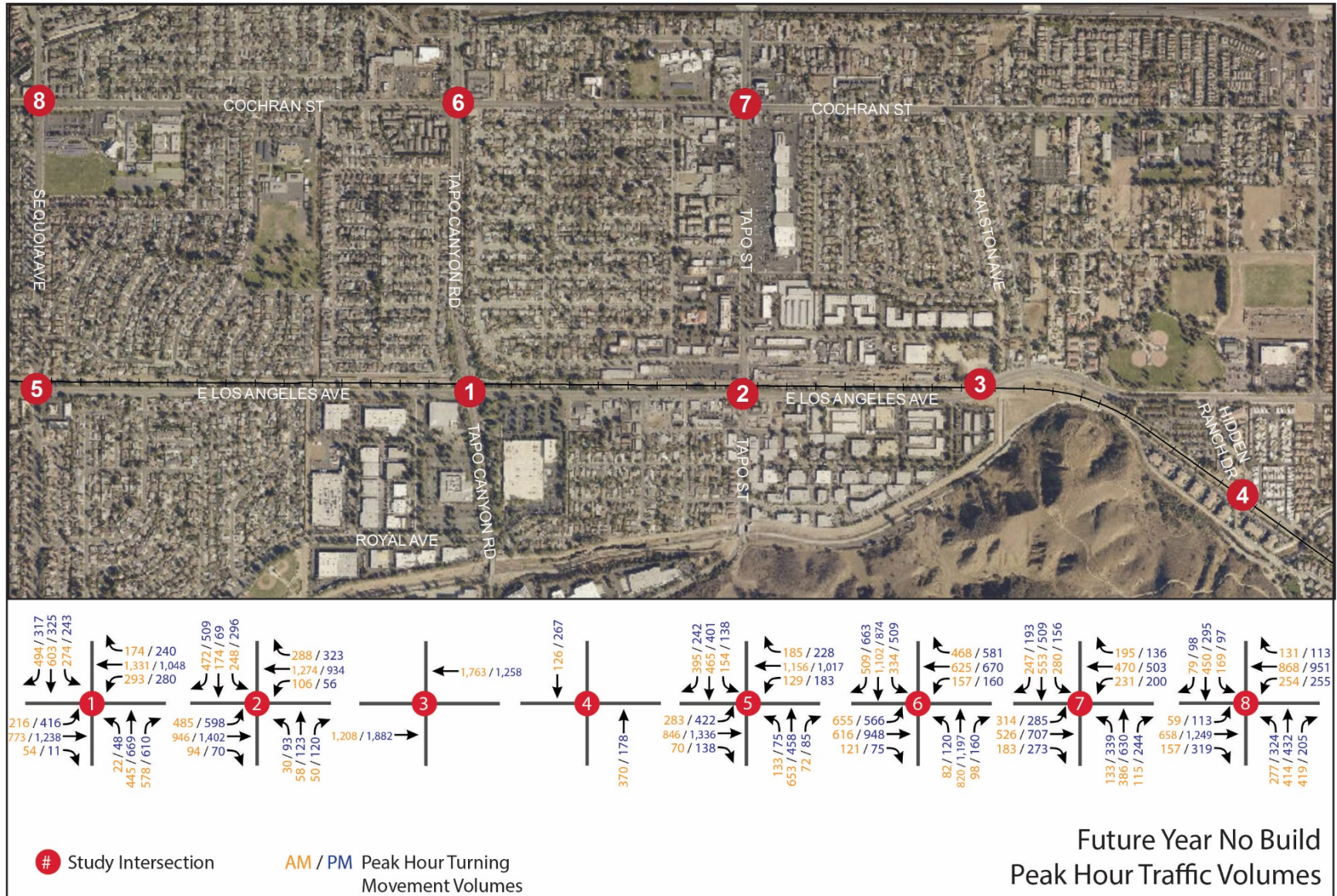
ID	Primary Street	Secondary Street	Control	95th Percentile Queue (feet)	
				AM	PM
1	Tapo Canyon Road	Railway Crossing	NB through lane	942	1,567
2	Tapo Street	Railway Crossing	NB through lane	936	1,212

Notes:

At grade crossings are located close to intersections; therefore, storage is not reported for NB through lane direction.

ID=identification; NB=northbound

Figure 7-1. Future Year (2045) No Build Peak Hour Turning Movements



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7.2 Future Year (2045) Build Condition

Future year (2045) build condition results are based on the proposed reconfigurations and improvements due to the construction of an additional railroad track and the improvements mentioned in the City of Simi Valley General Plan.

7.2.1 Future Year (2045) Build Intersection Forecast

For the future year (2045) build condition, the Project is completed and the general plan roadway and intersection improvements are in place. Due to additional track, train volume at the railroad crossing would increase along with vehicular volume. There would be no changes in the traffic volumes at all study intersections when compared to the future year (2045) no build conditions; however, due to double-tracking, the frequency of trains would increase, resulting in more frequent gate closures at the crossing during peak periods.

7.2.2 Intersection Level of Service Analysis

Future year (2045) build LOS analysis was conducted using the methodologies described in Section 2. The intersections LOS results are summarized below. The LOS worksheets for the future year (2045) build analysis are presented in Appendix F. Table 7-3 presents intersection LOS and average vehicle delay results for study area intersections under future year (2045) build conditions. As shown in Table 7-3, all Project study area intersections would operate at an acceptable LOS C or better with the exception of the following:

- Tapo Canyon Road at East Los Angeles Avenue in AM and PM peak hours
- Sequoia Avenue at East Los Angeles Avenue in AM and PM peak hours
- Tapo Canyon Road at Cochran Street in AM and PM peak hours
- Sequoia Avenue at Cochran Street in AM and PM peak hours

Table 7-3. Future Year (2045) Build Peak Hour Level of Service Results

ID	Primary Street	Secondary Street	Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Tapo Canyon Road	East Los Angeles Avenue	Signalized	<u>103.2</u>	<u>F</u>	<u>108.9</u>	<u>F</u>
2	Tapo Street	East Los Angeles Avenue	Signalized	28.9	C	29.7	C
3	East Los Angeles Avenue	Railway crossing	Signalized	17.1	B	18.4	B
4	Hidden Ranch Drive	Railway crossing	Signalized	16.7	B	13.0	B
5	Sequoia Avenue	East Los Angeles Avenue	Signalized	<u>96.8</u>	<u>F</u>	<u>43.6</u>	<u>D</u>
6	Tapo Canyon Road	Cochran Street	Signalized	<u>93.7</u>	<u>F</u>	<u>114.2</u>	<u>F</u>
7	Tapo Street	Cochran Street	Signalized	28.7	C	30.7	C

Table 7-3. Future Year (2045) Build Peak Hour Level of Service Results

ID	Primary Street	Secondary Street	Control	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
8	Sequoia Ave	Cochran Street	Signalized	76.1	E	65.2	E

Notes:

Bold indicates LOS D, E, or F
 ID=identification; LOS=level of service

7.2.3 Queuing Analysis

Due to the close spacing of the grade crossing and the intersections near the grade crossing, the vehicular queues potentially back up and spill over to the adjacent intersection. In addition, insufficient NB through storage lengths at the grade crossing can result in the blockage other intersection movements. For this critical movement, the 95th percentile queue length for future year build condition are reported in Table 7-4. The relocation of existing railroad signal at Sycamore Drive (at MP 435.13) and installation of railroad signal west of Erringer Road (at MP 433.96) would not require any street closures. Therefore, no queuing issues are expected at these locations during the future year (2045) build condition.

Table 7-4. Future Year (2045) Build Condition Intersection Peak Hour Queuing Analysis

ID	Primary Street	Secondary Street	Control	95th Percentile Queue (feet)	
				AM	PM
1	Tapo Canyon Road	Railway Crossing	NB through lane	942	1,567
2	Tapo Street	Railway Crossing	NB through lane	936	1,212

Notes:

At-grade crossings are located close to intersections; therefore, storage is not reported for NB through lane direction.

ID=identification; NB=northbound

8 Senate Bill 743 – Vehicle Miles Traveled

Senate Bill 743 was approved in 2013 and changes the evaluation of traffic impacts under the California Environmental Quality Act (CEQA). The bill required the Office of Planning and Research to modify the CEQA Guidelines to replace existing approaches for studying transportation impacts. These previously existing approaches focused on auto delay and congestion, which are typically measured using LOS. These metrics would no longer be considered an environmental impact under CEQA upon certification of revised CEQA Guidelines. Rather, Senate Bill 743 requires the Office of Planning and Research to establish criteria for determining the significance of transportation impacts that promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. In response, the Office of Planning and Research published a document titled *Updating Transportation Impacts Analysis in the CEQA Guidelines: Preliminary Discussion Draft of Updates to the CEQA Guidelines Implementing Senate Bill 743*. These preliminary updates identify VMT as the primary metric for evaluating transportation impacts. The Office of Planning and Research published a revised Technical Advisory in April 2018. The revised Technical Advisory identifies VMT (per capita, per employee, or other appropriate efficiency measure) as new metrics for evaluating transportation impacts.

Senate Bill 743 preserves local government authority to make planning decisions. Therefore, LOS and congestion can still be measured for planning purposes; however, studies based on these metrics would no longer be required as part of the CEQA process.

The City of Simi Valley is in the process of developing methodologies and criteria for implementing VMT analyses as they apply to new development projects. In the meantime and for the purposes of analysis, it is possible to compare the proposed Simi Valley Double Track Improvement Project to the goals of Senate Bill 743. Given the Project predominantly involves existing passenger rail infrastructure improvements and generates no new vehicle trips over the long term, no permanent impact on the regional traffic would result, as shown in Section 7. Additionally, since the Project would support increased ridership on Metrolink's VCL at opening day and over the long term, including a corresponding decrease in regional VMT, further analysis of VMT is not required for this Project.

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9 Impact Evaluation, Improvements, and Conclusion

The City of Simi Valley's adopted policy for minimum vehicular operating condition standards for intersections aims to achieve a LOS C or better during peak hour periods. LOS C was used as the threshold criteria for this study; however, if the intersection is a LOS C or better, other significant traffic impacts may cause the threshold criteria to be breached.

9.1 Summary of Intersection Level of Service Analysis

Table 9-1 provides a summary comparison of the intersection analysis at each of the study intersections for the existing conditions (2019), construction year conditions (2022), opening year conditions (2024), and future year conditions (2045).

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Table 9-1. Intersection Peak Hour Level of Service Results Summary

ID	North-South Street	East-West Street	Existing Condition				2022 Construction Year Phase 1 Condition Analysis				2022 Construction Year Phase 2 Condition Analysis				2022 Construction Year Phase 3 Condition Analysis				2024 Opening Year No Build Condition Analysis				2024 Opening Year Build Condition Analysis				2045 No Build Condition Analysis				2045 Build Condition Analysis				Adverse Project Impact?
			AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak						
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS					
1	Tapo Canyon Road	East Los Angeles Avenue	26.7	C	33.5	C	34.4	C	29.5	C	50.4	D	49.5	D	74.1	E	68.9	E	33.6	C	34.7	C	33.6	C	34.7	C	103.2	F	108.9	F	103.2	F	108.9	F	Yes
2	Tapo Street	East Los Angeles Avenue	28.3	C	22.7	C	30.1	C	26.0	C	31.2	C	28.2	C	22.9	C	32.4	C	33.7	C	27.1	C	33.7	C	27.1	C	28.9	C	29.7	C	28.9	C	29.7	C	No
3	East Los Angeles Avenue	Railway crossing	11.7	B	11.5	B	12.1	B	12.4	B	12.1	B	12.6	B	-	-	-	-	12.4	B	11.4	B	12.8	B	12.0	B	16.8	B	17.9	B	17.1	B	18.4	B	No
4	Hidden Ranch Drive	Railway crossing	10.9	B	9.5	A	12.5	B	9.6	A	12.5	B	9.6	A	12.5	B	9.6	A	12.6	B	7.7	A	12.9	B	8.0	A	16.0	B	12.4	B	16.7	B	13.0	B	No
5	Sequoia Avenue	East Los Angeles Avenue	22.5	C	22.0	C	22.5	C	25.9	C	33.6	C	27.3	C	28.6	C	21.3	C	26.1	C	23.4	C	26.1	C	23.4	C	96.8	F	43.6	D	96.8	F	43.6	D	No
6	Tapo Canyon Road	Cochran Street	32.7	C	30.3	C	45.8	D	51.4	D	51.0	D	52.7	D	50.5	D	53.7	D	50.6	D	45.0	D	50.6	D	45	D	93.7	F	114.2	F	93.7	F	114.2	F	Yes
7	Tapo Street	Cochran Street	21.9	C	21.6	C	28.0	C	30.6	C	26.5	C	22.8	C	28.3	C	28.4	C	26.3	C	23.3	C	26.3	C	23.3	C	28.7	C	30.7	C	28.7	C	30.7	C	No
8	Sequoia Ave	Cochran Street	26.7	C	22.8	C	24.9	C	29.4	C	17.4	B	31.8	C	30.0	C	27.0	C	28.7	C	28.1	C	28.7	C	28.1	C	76.1	E	65.2	E	76.1	E	65.2	E	No

Notes:
Bold indicates LOS D, E, or F
 ID=identification; LOS=level of service

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9.2 Summary of Mitigations and Improvements

9.2.1 Construction Year (2022) Condition – Mitigation

The intersections shown in Table 9-2 would operate at an unacceptable LOS during the construction period. The congestion at these intersections would be a result of detoured traffic through these intersections; therefore, temporary mitigations are proposed to maintain an acceptable LOS at these intersections. With implementation of the proposed mitigation, the intersections are expected to operate at an acceptable LOS. The LOS results for construction year (2022) for the intersections with improvements are provided in Table 9-2, and LOS sheets are provided in Appendix D. The proposed improvements to reduce the level of congestion at these intersections are as shown in Table 9-5.

Table 9-2. Summary of Level of Service – Construction Year (2022) Condition with Mitigations

ID	Primary Street	Secondary Street/ Crossing	Control	Without Mitigations				With Mitigation			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Construction Year Phase 1											
6	Tapo Canyon Street	Cochran Street	Signalized	45.8	D	51.4	D	25.6	C	32.4	C
Construction Year Phase 2											
1	Tapo Canyon Road	East Los Angeles Avenue	Signalized	50.4	D	49.5	D	33.7	C	34.4	C
6	Tapo Canyon Road	Cochran Street	Signalized	51.0	D	52.7	D	34.1	C	34.9	C
Construction Year Phase 3											
1	Tapo Canyon Road	East Los Angeles Avenue	Signalized	74.1	E	68.9	E	32.9	C	33.6	C
6	Tapo Canyon Road	Cochran Street	Signalized	50.5	D	53.7	D	32.9	C	29.5	C

Notes:

Bold indicates LOS D, E, or F

ID=identification; LOS=level of service

9.2.2 Opening Year (2024) Condition – Improvements

The Tapo Canyon Road at Cochran Street intersection is expected to operate at an unacceptable LOS in the opening year (2024) condition. The increased congestion at this intersection is attributed to the increased vehicular traffic, as opposed to the Project. To operate at an acceptable LOS, multiple improvements are recommended. With implementation of the recommended improvements, the

intersection is expected to operate at an acceptable LOS. The LOS results for Opening Year (2024) for the intersections with improvements are provided in Table 9-3, and the LOS sheets are provided in Appendix E. The proposed improvements to reduce the level of congestion at these intersections are shown in Table 9-5.

Table 9-3. Summary of Level of Service – Opening Year (2024) Condition with Improvements

ID	Primary Street	Secondary Street/ Crossing	Control	Without Improvements				With Improvements			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
6	Tapo Canyon Road	Cochran Street	Signalized	50.6	D	45.0	D	34.8	C	34.7	C

Notes:

Bold indicates LOS D, E, or F

ID=identification; LOS=level of service

9.2.3 Future Year (2045) Condition – Improvements

The intersections shown in Table 9-4 are expected to operate at an unacceptable LOS in the future year (2045) condition. The congestion at these intersections is a result of increased vehicular traffic at these intersections and not the Project improvements. To operate at an acceptable LOS, multiple improvements are recommended. With implementation of the recommended improvements, the intersections are expected to operate at an acceptable LOS. The LOS results for the future year (2045) for the intersections with improvements are provided in Table 9-4, and the LOS sheets are provided in Appendix F. The proposed improvements to reduce the level of congestion at these intersections are shown in Table 9-5.

Table 9-4. Summary of Level of Service – Future Year (2045) Condition with Improvements

ID	Primary Street	Secondary Street/Crossing	Control	Without Improvements				With Improvements			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	Tapo Canyon Road	East Los Angeles Avenue	Signalized	103.2	F	108.9	F	33.6	C	32.1	C
5	Sequoia Avenue	East Los Angeles Avenue	Signalized	96.8	F	43.6	D	29.3	C	26.1	C
6	Tapo Canyon Road	Cochran Street	Signalized	93.7	F	114.2	F	26.9	C	33.6	C
8	Sequoia Avenue	Cochran Street	Signalized	76.1	E	65.2	E	31.6	C	26.6	C

Notes:

Bold indicates LOS D, E, or F

ID=identification; LOS=level of service

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Table 9-5. Summary of Intersection Mitigations and Improvements

ID	Primary Street	Secondary Street/Crossing	Control	Construction Year (2022) Phase 1 – Temporary Mitigations	Construction Year (2022) Phase 2 – Temporary Mitigations	Construction Year (2022) Phase 3 – Temporary Mitigations	Opening Year (2024) No Build Condition – Recommended Improvements	Opening Year (2024) Build Condition – Recommended Improvements	Future Year (2045) No Build Condition – Recommended Improvements	Future Year (2045) Build Condition – Recommended Improvements
1	Tapo Canyon Road	East Los Angeles Avenue	Signalized	—	1. Provide EB left turn lane	1. Provide one EB left turn lane	—	—	1. Provide one WB through lane 2. Provide one EB through lane 3. Provide one NB right turn lane 4. Provide one SB right turn lane	No change in ROW. Improvements are same as future year (2045) no build condition
2	Tapo Street	East Los Angeles Avenue	Signalized	—	—	—	—	—	—	—
4	Hidden Ranch Drive	Railway crossing	—	—	1. Provide temporary one lane in each direction in phased construction sequence after coordinating with SCRRA, the city, and the contractor.	—	—	—	—	—
5	Sequoia Avenue	East Los Angeles Avenue	Signalized	—	—	—	—	—	1. Provide one EB through lane 2. Provide one WB through lane	No change in ROW. Improvements are same as future year (2045) no build condition
6	Tapo Canyon Road	Cochran Street	Signalized	1. Convert EB through lane to EB left turn lane 2. Convert EB right turn lane to EB through right lane 3. Convert SB right turn through lane to SB right turn lane	1. Provide WB right turn overlap	1. Convert EB through lane to EB left turn lane 2. Convert EB right turn lane to EB through right lane	1. Provide WB right turn overlap	1. Provide WB right turn overlap	1. Provide one EB through lane 2. Provide one WB through lane 3. Provide one NB through lane 4. Provide one SB through lane 5. Provide one SB right turn lane 6. Provide one EB left turn lane	No change in ROW. Improvements are same as future year (2045) no build condition
8	Sequoia Ave	Cochran Street	Signalized	—	—	—	—	—	1. Provide EB through lane 2. Provide WB through Lane	No change in ROW. Improvements are same as future year (2045) no build condition

Notes:
 EB=eastbound; ROW=right-of-way; NB=northbound; SB=southbound; WB=westbound

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9.3 Conclusion and Recommendations

Based on the preceding analysis, it is expected that the study area intersections would operate at an acceptable LOS with proposed improvements under the construction year conditions, the opening year conditions, and in the future year conditions with and without the Project. The major findings of the analysis in this report are summarized below:

Forecasted Traffic Conditions

Increased congestion at the adjacent intersections during opening year (2024) and future year (2045) conditions is a result of an increase vehicular traffic added due to ambient growth of 2.33 percent per year. The increase in train volumes contribute minimally to the delay at the study intersections. The improvements proposed in Table 9-5 are identical at each intersection under opening year (2024) and future year (2045) conditions with or without the Project. Therefore, no permanent significant traffic impacts on the adjacent intersections would result from the Project.

Construction Year (2022) Build Conditions

The traffic analysis identified additional congestion during construction year (2022) conditions as a result of Project construction. These impacts are attributed to temporary detoured traffic from the construction area. The following intersections are expected to operate below LOS C during Construction Year (2022) build conditions:

- Tapo Canyon Road at East Los Angeles Avenue during Phase 2 and Phase 3
- Tapo Canyon Road at Cochran Street during Phase 1, Phase 2, and Phase 3

These traffic impacts resulting from Project construction are identified as significant in the absence of mitigation. The following measures are recommended to mitigate these temporary impacts.

TR-1 **Maintain pedestrian and bicycle access during construction.** Pedestrian and bicycle access at the Tapo Canyon Road, Tapo Street, and East Los Angeles Avenue railroad crossings will be maintained during construction for most of the construction period. However, bicycle lanes accessing Hidden Ranch Drive crossing from the west direction will be fully closed during construction.

TR-2 **Traffic Management Plan.** It is recommended to prepare a traffic management plan for the Project prior to the start of construction. In addition to complying with local requirements, the traffic management plan should condition the contractor to utilize the following roadways as detour routes to mitigate the temporary impacts during construction and to maintain LOS at the adjacent intersections to the railroad crossing:

- Phase 1
 - Traffic should be detoured to Sequoia Avenue, Tapo Street, and Stearns Street via East Los Angeles Avenue.
- Phase 2
 - Traffic should be detoured to Sequoia Avenue, Tapo Canyon Road, and Stearns Street via East Los Angeles Avenue during full closure at Tapo Street railroad crossing.

- For Hidden Ranch Drive it is recommended once a contractor is chosen, the design and staging of construction sequence will be coordinated and reviewed between the contractor, the city, and SCRRA.
- Phase 3
 - Traffic should be detoured to State Route 118 and Cochran Street via Sequoia Avenue, Tapo Canyon Road, Tapo Street, and Stearns Street.

Opening Year (2024) Build and No Build Condition

The following intersection is expected to operate below LOS C with and without the Project in opening year (2024) conditions:

- Tapo Canyon Road at Cochran Street.

The intersection operating condition is attributed to increased vehicular traffic as a result of ambient growth. Based on the traffic analysis, no significant traffic impact is attributed to the Project in opening year (2024) condition. However, the following improvements are recommended to improve LOS under opening year (2024) conditions with or without the Project improvements.

TR-3 **Signal modifications.** Add a westbound (WB) right turn lane overlap phase at Tapo Canyon Road at Cochran Street intersection.

- **Future Year (2045):** The following intersection is expected to operate below LOS C with and without Project in future year (2045) conditions:
 - Tapo Canyon Road at East Los Angeles Avenue
 - Sequoia Avenue at East Los Angeles Avenue
 - Tapo Canyon Road at Cochran Street
 - Sequoia Avenue at Cochran Street

The intersection operating condition is attributed to increased vehicular traffic as a result of ambient growth. Based on the traffic analysis, no significant traffic impact is attributed to the Project in the future year (2045) condition. However, the following improvements are recommended to improve LOS under future year (2045) conditions with or without the Project improvements:

- Tapo Canyon Road at East Los Angeles Avenue
 - Provide one WB through lane
 - Provide one eastbound (EB) through lane
 - Provide one NB right turn lane
 - Provide one SB right turn lane
- Sequoia Avenue at East Los Angeles Avenue
 - Provide one EB through lane
 - Provide one WB through lane

- Tapo Canyon Road at Cochran Street
 - Provide one EB through lane
 - Provide one WB through lane
 - Provide one NB through lane
 - Provide one SB through lane
 - Provide one SB right turn lane
 - Provide one EB left turn lane
- Sequoia Avenue at Cochran Street
 - Provide EB through lane
 - Provide WB through lane

At-Grade Crossing Analysis

As a result of NB traffic queuing during opening year (2024) and future year (2045) conditions at the at-grade crossing adjacent to Tapo Canyon Road and Tapo Street, potential spillover impacts are identified as a result of insufficient storage for vehicles. This NB queuing at the existing at-grade crossing is a result of NB through, WB right, and EB left turning movements at the adjacent intersections. In the absence of mitigation, this traffic impact would be significant. The following measure is recommended to avoid this impact.

TR-4 Implement pre-signals or Comparable Measure(s). Implement pre-signals, or comparable measure(s), as part of the Project at Tapo Canyon Road at East Los Angeles Avenue and Tapo Street at East Los Angeles Avenue. The pre-signal or comparable measure(s), along with signal preemption will result in reduction of queue and increase safety for the at-grade crossings. To implement this measure, SCRRA's contractor would be required to provide the traffic signal timing plans and preemptions calculations for city, California Public Utilities Commission, and Federal Railroad Administration approval to upgrade the signal.

Vehicle Miles Traveled Analysis

The Project would include an additional boarding platform at the existing Simi Valley Station. The Project predominantly involves existing passenger rail infrastructure improvements and generates no new vehicle trips over the long term; no permanent impact on the regional traffic would result, as shown in Section 6.

This Project feature combined with the increase in operational frequency on Metrolink's VCL would support increased ridership at opening day and over the long term. This increase in ridership would result in a corresponding decrease in regional VMT, and no impact would result.

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10 References

City of Simi Valley. 2012a. City of Simi Valley General Plan Environmental Impact Report, Section 4.16 – Transportation/Traffic. Accessed November 2, 2020. <https://www.simivalley.org/home/showdocument?id=6893>.

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Southern California Regional Rail Authority (SCRRA). 2014. *SCRRA Design Criteria Manual*. https://metrolinktrains.com/globalassets/about/engineering/scrra_design_criteria_manual.pdf.

Transportation Research Board. 2020. Highway Capacity Manual, Special Edition 209, Sixth Edition.

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Appendix A. Traffic Counts

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National Data & Surveying Services

Intersection Turning Movement Count

Location: Tapo Canyon Rd & E Los Angeles Ave
 City: Simi Valley
 Control: Signalized

Project ID: 19-05665-001
 Date: 11/5/2019

Total

NS/EW Streets:	Tapo Canyon Rd				Tapo Canyon Rd				E Los Angeles Ave				E Los Angeles Ave				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1	2	1	0	1	2	1	0	1	2	0	0	1	3	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	2	74	43	0	32	72	40	0	39	70	3	0	28	112	23	0	538
7:15 AM	2	78	61	0	38	59	36	0	26	60	3	0	36	130	16	0	545
7:30 AM	4	55	72	0	43	93	59	0	30	129	7	0	56	247	26	0	821
7:45 AM	5	98	114	0	54	125	99	0	40	107	9	0	54	241	37	0	983
8:00 AM	3	79	91	0	38	93	80	0	40	143	12	0	33	189	29	0	830
8:15 AM	2	46	84	0	36	66	71	0	25	104	6	0	40	155	17	0	652
8:30 AM	1	37	54	0	29	53	46	0	31	93	6	0	32	140	27	0	549
8:45 AM	1	42	48	0	29	74	54	0	23	110	5	0	16	140	22	0	564
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	1.82%	46.44%	51.73%	0.00%	21.07%	44.75%	34.18%	0.00%	22.66%	72.79%	4.55%	0.00%	15.98%	73.35%	10.67%	0.00%	5482
PEAK HR:	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL:	14	278	361	0	171	377	309	0	135	483	34	0	183	832	109	0	3286
PEAK HR FACTOR:	0.700	0.709	0.792	0.000	0.792	0.754	0.780	0.000	0.844	0.844	0.708	0.000	0.817	0.842	0.736	0.000	0.836
			0.752				0.771				0.836				0.846		
PM	1	2	1	0	1	2	1	0	1	2	0	0	1	3	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	11	99	67	2	28	52	55	0	50	159	2	0	40	154	32	0	751
4:15 PM	0	78	80	0	29	70	43	0	56	163	2	0	43	133	27	0	724
4:30 PM	6	146	84	0	39	49	46	0	87	178	4	0	48	159	37	0	883
4:45 PM	6	75	102	0	37	38	38	0	52	206	3	0	37	163	38	0	795
5:00 PM	9	106	105	0	36	65	60	0	74	200	0	0	51	150	38	1	895
5:15 PM	9	91	90	2	40	51	54	0	47	190	0	0	39	183	37	0	833
5:30 PM	6	66	80	0	29	54	44	0	82	217	4	0	37	193	33	0	845
5:45 PM	7	82	86	0	22	70	49	0	53	176	0	1	39	165	34	1	785
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	3.61%	49.70%	46.42%	0.27%	23.68%	40.89%	35.43%	0.00%	24.98%	74.23%	0.75%	0.05%	17.47%	67.99%	14.44%	0.10%	6511
PEAK HR:	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL:	30	418	381	2	152	203	198	0	260	774	7	0	175	655	150	1	3406
PEAK HR FACTOR:	0.833	0.716	0.907	0.250	0.950	0.781	0.825	0.000	0.747	0.939	0.438	0.000	0.858	0.895	0.987	0.250	0.951
			0.880				0.859				0.950				0.947		

National Data & Surveying Services

Intersection Turning Movement Count

Location: Tapo St & E Los Angeles Ave
City: Simi Valley
Control: Signalized

Project ID: 19-05665-002
Date: 11/5/2019

Total

NS/EW Streets:	Tapo St				Tapo St				E Los Angeles Ave				E Los Angeles Ave				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1	2	0	0	1	1	1	0	2	3	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	5	6	4	0	13	14	48	0	47	84	6	0	7	100	17	0	351
7:15 AM	3	9	8	0	18	12	40	0	35	99	6	0	7	137	34	0	408
7:30 AM	6	7	6	0	40	18	95	0	67	137	19	0	15	233	27	0	670
7:45 AM	6	9	9	0	44	37	65	0	70	165	21	0	22	230	57	0	735
8:00 AM	2	12	7	0	34	29	67	0	91	172	17	0	15	190	57	0	693
8:15 AM	5	8	9	0	37	25	68	0	75	117	12	0	14	143	39	0	552
8:30 AM	8	10	6	0	33	12	50	0	63	96	11	0	20	121	37	2	469
8:45 AM	5	11	6	0	26	21	52	0	51	108	9	0	9	124	39	0	461
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	23.95%	43.11%	32.93%	0.00%	27.28%	18.71%	54.01%	0.00%	31.62%	61.98%	6.40%	0.00%	6.43%	75.35%	18.10%	0.12%	4339
PEAK HR:	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL:	19	36	31	0	155	109	295	0	303	591	69	0	66	796	180	0	2650
PEAK HR FACTOR:	0.792	0.750	0.861	0.000	0.881	0.736	0.776	0.000	0.832	0.859	0.821	0.000	0.750	0.854	0.789	0.000	0.901
			0.896				0.913				0.860				0.843		
PM	1	2	0	0	1	1	1	0	2	3	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	17	13	17	0	50	17	89	0	87	172	7	0	7	107	31	0	614
4:15 PM	13	17	12	0	43	6	72	0	77	176	9	0	5	113	42	0	585
4:30 PM	26	35	21	0	40	16	67	0	73	202	8	0	10	153	44	0	695
4:45 PM	10	20	21	0	35	17	69	0	80	237	17	0	12	134	44	0	696
5:00 PM	21	34	25	0	46	11	85	0	93	244	9	0	9	139	56	0	772
5:15 PM	15	10	17	0	50	7	83	0	105	205	9	0	7	140	47	1	696
5:30 PM	12	13	12	0	54	8	81	0	96	190	9	0	7	171	55	0	708
5:45 PM	14	17	14	0	53	10	79	0	97	180	6	0	5	135	34	0	644
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	30.05%	37.32%	32.63%	0.00%	34.10%	8.46%	57.44%	0.00%	29.65%	67.25%	3.10%	0.00%	4.11%	72.41%	23.41%	0.07%	5410
PEAK HR:	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL:	58	77	75	0	185	43	318	0	374	876	44	0	35	584	202	1	2872
PEAK HR FACTOR:	0.690	0.566	0.750	0.000	0.856	0.632	0.935	0.000	0.890	0.898	0.647	0.000	0.729	0.854	0.902	0.250	0.930
			0.656				0.955				0.935				0.882		

National Data & Surveying Services

Intersection Turning Movement Count

Location: The Rail Crossing & E Los Angeles Ave
 City: Simi Valley
 Control: No Control

Project ID: 19-05665-003
 Date: 11/5/2019

Total

NS/EW Streets:	The Rail Crossing				The Rail Crossing				E Los Angeles Ave				E Los Angeles Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	234
7:15 AM	0	0	0	0	0	0	0	0	0	127	0	0	0	178	0	0	305
7:30 AM	0	0	0	0	0	0	0	0	0	175	0	0	0	332	0	0	507
7:45 AM	0	0	0	0	0	0	0	0	0	217	0	0	0	307	0	0	524
8:00 AM	0	0	0	0	0	0	0	0	0	204	0	0	0	257	0	0	461
8:15 AM	0	0	0	0	0	0	0	0	0	159	0	0	0	206	0	0	365
8:30 AM	0	0	0	0	0	0	0	0	0	133	0	0	0	176	0	0	309
8:45 AM	0	0	0	0	0	0	0	0	0	148	0	0	0	184	0	0	332
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	0	0	0	0	0	0	0	0	1265	0	0	0	1772	0	0	3037
	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR:	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL:	0	0	0	0	0	0	0	0	0	755	0	0	0	1102	0	0	1857
PEAK HR FACTOR:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.870	0.000	0.000	0.000	0.830	0.000	0.000	0.886
									0.870				0.830				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	0	0	0	0	0	0	0	0	236	0	0	0	136	0	0	372
4:15 PM	0	0	0	0	0	0	0	0	0	230	0	0	0	169	0	0	399
4:30 PM	0	0	0	0	0	0	0	0	0	272	0	0	0	178	0	0	450
4:45 PM	0	0	0	0	0	0	0	0	0	304	0	0	0	204	0	0	508
5:00 PM	0	0	0	0	0	0	0	0	0	341	0	0	0	190	0	0	531
5:15 PM	0	0	0	0	0	0	0	0	0	267	0	0	0	181	0	0	448
5:30 PM	0	0	0	0	0	0	0	0	0	264	0	0	0	228	0	0	492
5:45 PM	0	0	0	0	0	0	0	0	0	245	0	0	0	163	0	0	408
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	0	0	0	0	0	0	0	0	2159	0	0	0	1449	0	0	3608
	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR:	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL:	0	0	0	0	0	0	0	0	0	1176	0	0	0	803	0	0	1979
PEAK HR FACTOR:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.862	0.000	0.000	0.000	0.880	0.000	0.000	0.932
									0.862				0.880				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Hidden Ranch Dr & The Rail Crossing
 City: Simi Valley
 Control: No Control

Project ID: 19-05665-004
 Date: 11/5/2019

Total

NS/EW Streets:	Hidden Ranch Dr				Hidden Ranch Dr				The Rail Crossing				The Rail Crossing				TOTAL				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND								
AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU					
7:00 AM	0	51	0	0	0	10	0	0	0	0	0	0	0	0	0	0					61
7:15 AM	0	51	0	0	0	13	0	0	0	0	0	0	0	0	0	0					64
7:30 AM	0	79	0	0	0	11	0	0	0	0	0	0	0	0	0	0					90
7:45 AM	0	53	0	0	0	32	0	0	0	0	0	0	0	0	0	0					85
8:00 AM	0	48	0	0	0	23	0	0	0	0	0	0	0	0	0	0					71
8:15 AM	0	39	0	0	0	23	0	0	0	0	0	0	0	0	0	0					62
8:30 AM	0	34	0	0	0	18	0	0	0	0	0	0	0	0	0	0					52
8:45 AM	0	25	0	0	0	14	0	0	0	0	0	0	0	0	0	0					39
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU					TOTAL
APPROACH %'s:	0	380	0	0	0	144	0	0	0	0	0	0	0	0	0	0					524
	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%					
PEAK HR:	07:15 AM - 08:15 AM																				TOTAL
PEAK HR VOL:	0	231	0	0	0	79	0	0	0	0	0	0	0	0	0	0					310
PEAK HR FACTOR:	0.000	0.731	0.000	0.000	0.000	0.617	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000					0.861
				0.731				0.617													
PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU					
4:00 PM	0	18	0	0	0	24	0	0	0	0	0	0	0	0	0	0					42
4:15 PM	0	27	0	0	0	34	0	0	0	0	0	0	0	0	0	0					61
4:30 PM	0	22	0	0	0	42	0	0	0	0	0	0	0	0	0	0					64
4:45 PM	0	26	0	0	0	43	0	0	0	0	0	0	0	0	0	0					69
5:00 PM	0	30	0	0	0	44	0	0	0	0	0	0	0	0	0	0					74
5:15 PM	0	33	0	0	0	38	0	0	0	0	0	0	0	0	0	0					71
5:30 PM	0	21	0	0	0	39	0	0	0	0	0	0	0	0	0	0					60
5:45 PM	0	23	0	0	0	43	0	0	0	0	0	0	0	0	0	0					66
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU					TOTAL
APPROACH %'s:	0	200	0	0	0	307	0	0	0	0	0	0	0	0	0	0					507
	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%					
PEAK HR:	04:30 PM - 05:30 PM																				TOTAL
PEAK HR VOL:	0	111	0	0	0	167	0	0	0	0	0	0	0	0	0	0					278
PEAK HR FACTOR:	0.000	0.841	0.000	0.000	0.000	0.949	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000					0.939
				0.841				0.949													

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 (951) 268-6268

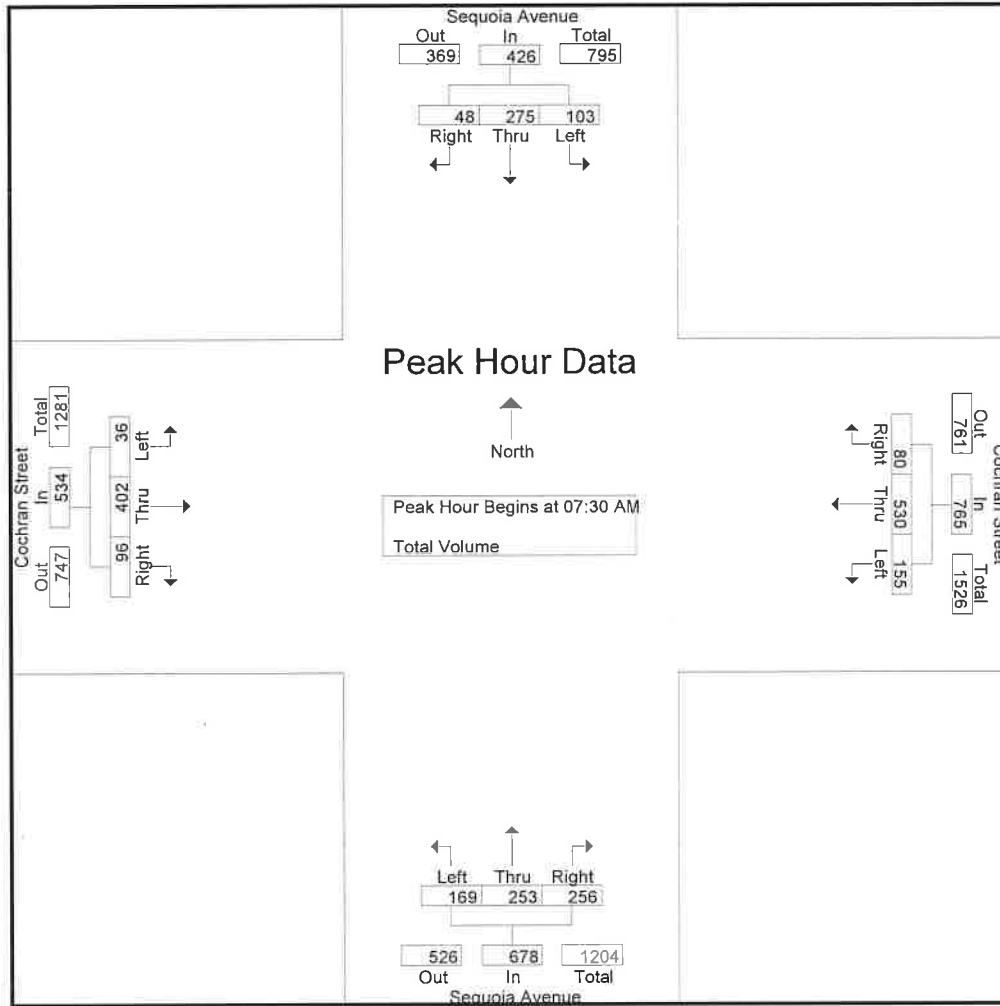
City of Simi Valley
 N/S: Sequoia Avenue
 E/W: Cochran Street
 Weather: Clear

File Name : 09_SMV_Sequoia_Cochran AM
 Site Code : 05718915
 Start Date : 12/4/2018
 Page No : 1

Groups Printed- Total Volume

Start Time	Sequoia Avenue Southbound				Cochran Street Westbound				Sequoia Avenue Northbound				Cochran Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	16	26	4	46	13	55	5	73	24	22	39	85	6	43	11	60	264
07:15 AM	18	36	6	60	15	66	6	87	27	35	40	102	6	45	15	66	315
07:30 AM	23	90	13	126	34	101	14	149	37	76	72	185	13	97	17	127	587
07:45 AM	39	90	13	142	68	174	28	270	55	89	118	262	10	137	27	174	848
Total	96	242	36	374	130	396	53	579	143	222	269	634	35	322	70	427	2014
08:00 AM	21	55	10	86	37	151	22	210	39	52	41	132	9	100	26	135	563
08:15 AM	20	40	12	72	16	104	16	136	38	36	25	99	4	68	26	98	405
08:30 AM	17	23	6	46	14	92	14	120	37	27	20	84	8	69	23	100	350
08:45 AM	19	24	7	50	20	98	12	130	34	39	23	96	10	91	21	122	398
Total	77	142	35	254	87	445	64	596	148	154	109	411	31	328	96	455	1716
Grand Total	173	384	71	628	217	841	117	1175	291	376	378	1045	66	650	166	882	3730
Apprch %	27.5	61.1	11.3		18.5	71.6	10		27.8	36	36.2		7.5	73.7	18.8		
Total %	4.6	10.3	1.9	16.8	5.8	22.5	3.1	31.5	7.8	10.1	10.1	28	1.8	17.4	4.5	23.6	

Start Time	Sequoia Avenue Southbound				Cochran Street Westbound				Sequoia Avenue Northbound				Cochran Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	23	90	13	126	34	101	14	149	37	76	72	185	13	97	17	127	587
07:45 AM	39	90	13	142	68	174	28	270	55	89	118	262	10	137	27	174	848
08:00 AM	21	55	10	86	37	151	22	210	39	52	41	132	9	100	26	135	563
08:15 AM	20	40	12	72	16	104	16	136	38	36	25	99	4	68	26	98	405
Total Volume	103	275	48	426	155	530	80	765	169	253	256	678	36	402	96	534	2403
% App. Total	24.2	64.6	11.3		20.3	69.3	10.5		24.9	37.3	37.8		6.7	75.3	18		
PHF	.660	.764	.923	.750	.570	.761	.714	.708	.768	.711	.542	.647	.692	.734	.889	.767	.708



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:15 AM				07:30 AM			
+0 mins.	23	90	13	126	34	101	14	149	27	35	40	102	13	97	17	127
+15 mins.	39	90	13	142	68	174	28	270	37	76	72	185	10	137	27	174
+30 mins.	21	55	10	86	37	151	22	210	55	89	118	262	9	100	26	135
+45 mins.	20	40	12	72	16	104	16	136	39	52	41	132	4	68	26	98
Total Volume	103	275	48	426	155	530	80	765	158	252	271	681	36	402	96	534
% App. Total	24.2	64.6	11.3		20.3	69.3	10.5		23.2	37	39.8		6.7	75.3	18	
PHF	.660	.764	.923	.750	.570	.761	.714	.708	.718	.708	.574	.650	.692	.734	.889	.767

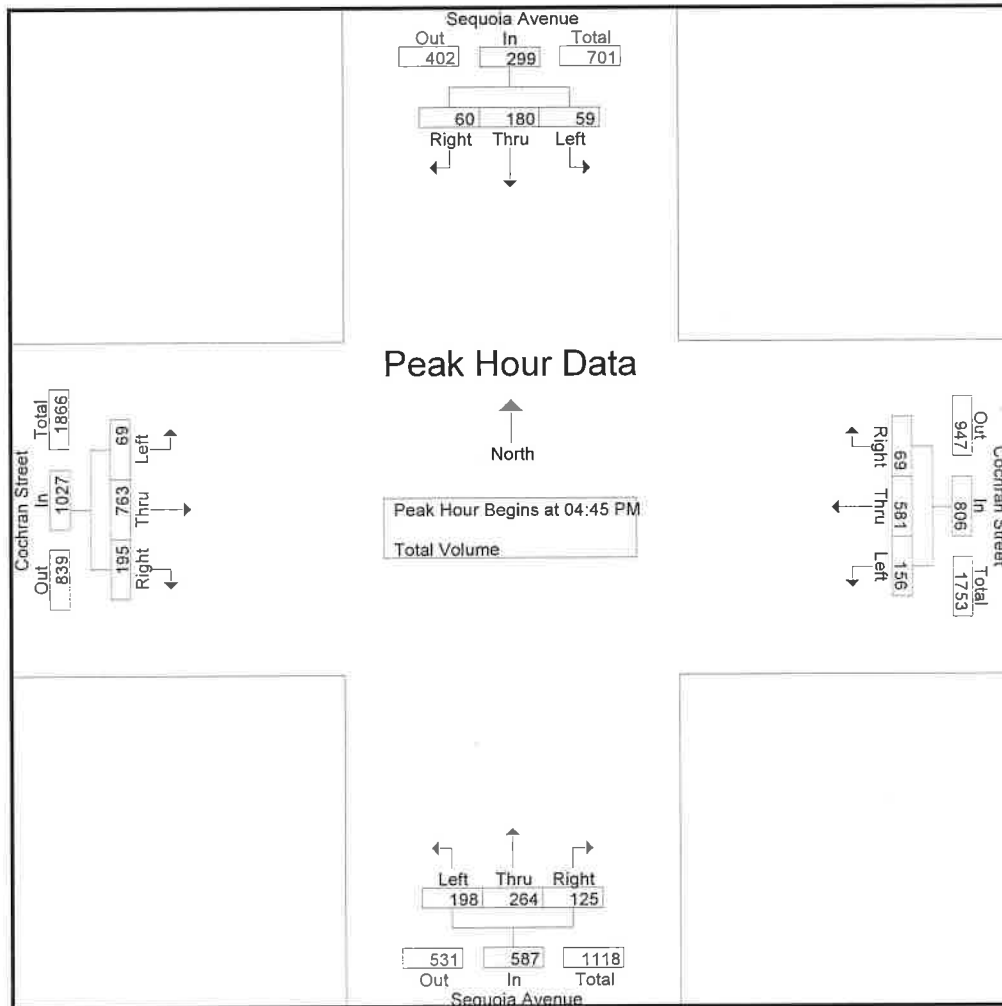
City of Simi Valley
 N/S: Sequoia Avenue
 E/W: Cochran Street
 Weather: Clear

File Name : 09_SMV_Sequoia_Cochran PM
 Site Code : 05718915
 Start Date : 12/4/2018
 Page No : 1

Groups Printed- Total Volume

Start Time	Sequoia Avenue Southbound				Cochran Street Westbound				Sequoia Avenue Northbound				Cochran Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	11	34	11	56	30	145	15	190	33	50	34	117	21	145	41	207	570
04:15 PM	12	45	15	72	37	141	13	191	28	55	37	120	17	182	51	250	633
04:30 PM	9	34	10	53	39	145	17	201	34	53	25	112	14	178	55	247	613
04:45 PM	14	43	15	72	32	144	7	183	53	62	23	138	13	192	40	245	638
Total	46	156	51	253	138	575	52	765	148	220	119	487	65	697	187	949	2454
05:00 PM	19	45	14	78	36	163	27	226	46	58	37	141	15	195	53	263	708
05:15 PM	11	49	17	77	49	142	18	209	63	69	39	171	17	182	47	246	703
05:30 PM	15	43	14	72	39	132	17	188	36	75	26	137	24	194	55	273	670
05:45 PM	10	49	11	70	26	115	13	154	37	60	32	129	15	163	55	233	586
Total	55	186	56	297	150	552	75	777	182	262	134	578	71	734	210	1015	2667
Grand Total	101	342	107	550	288	1127	127	1542	330	482	253	1065	136	1431	397	1964	5121
Apprch %	18.4	62.2	19.5		18.7	73.1	8.2		31	45.3	23.8		6.9	72.9	20.2		
Total %	2	6.7	2.1	10.7	5.6	22	2.5	30.1	6.4	9.4	4.9	20.8	2.7	27.9	7.8	38.4	

Start Time	Sequoia Avenue Southbound				Cochran Street Westbound				Sequoia Avenue Northbound				Cochran Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	14	43	15	72	32	144	7	183	53	62	23	138	13	192	40	245	638
05:00 PM	19	45	14	78	36	163	27	226	46	58	37	141	15	195	53	263	708
05:15 PM	11	49	17	77	49	142	18	209	63	69	39	171	17	182	47	246	703
05:30 PM	15	43	14	72	39	132	17	188	36	75	26	137	24	194	55	273	670
Total Volume	59	180	60	299	156	581	69	806	198	264	125	587	69	763	195	1027	2719
% App. Total	19.7	60.2	20.1		19.4	72.1	8.6		33.7	45	21.3		6.7	74.3	19		
PHF	.776	.918	.882	.958	.796	.891	.639	.892	.786	.880	.801	.858	.719	.978	.886	.940	.960



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:45 PM				04:30 PM				04:45 PM				04:45 PM			
+0 mins.	14	43	15	72	39	145	17	201	53	62	23	138	13	192	40	245
+15 mins.	19	45	14	78	32	144	7	183	46	58	37	141	15	195	53	263
+30 mins.	11	49	17	77	36	163	27	226	63	69	39	171	17	182	47	246
+45 mins.	15	43	14	72	49	142	18	209	36	75	26	137	24	194	55	273
Total Volume	59	180	60	299	156	594	69	819	198	264	125	587	69	763	195	1027
% App. Total	19.7	60.2	20.1		19	72.5	8.4		33.7	45	21.3		6.7	74.3	19	
PHF	.776	.918	.882	.958	.796	.911	.639	.906	.786	.880	.801	.858	.719	.978	.886	.940

City of Simi Valley
 N/S: Sequoia Avenue
 E/W: Los Angeles Avenue
 Weather: Clear

File Name : 10_SMV_Sequoia_Los Angeles AM
 Site Code : 05718915
 Start Date : 12/4/2018
 Page No : 1

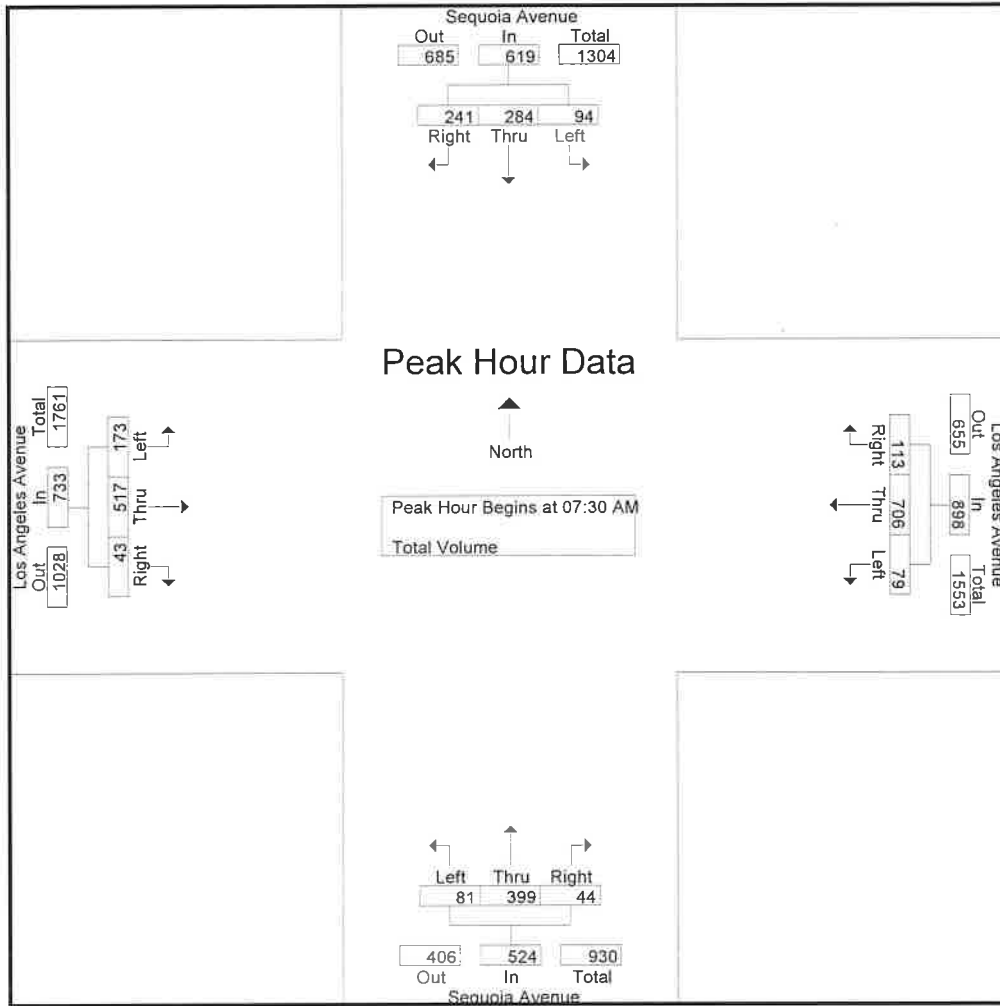
Groups Printed- Total Volume

Start Time	Sequoia Avenue Southbound				Los Angeles Avenue Westbound				Sequoia Avenue Northbound				Los Angeles Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	15	24	25	64	9	89	6	104	10	33	8	51	17	63	1	81	300
07:15 AM	12	45	45	102	24	103	6	133	15	41	10	66	25	81	11	117	418
07:30 AM	17	97	53	167	27	178	30	235	21	106	12	139	47	106	9	162	703
07:45 AM	31	101	89	221	31	200	51	282	28	166	9	203	67	173	13	253	959
Total	75	267	212	554	91	570	93	754	74	346	39	459	156	423	34	613	2380
08:00 AM	25	54	55	134	7	184	16	207	18	91	16	125	28	140	14	182	648
08:15 AM	21	32	44	97	14	144	16	174	14	36	7	57	31	98	7	136	464
08:30 AM	16	21	39	76	11	140	16	167	8	26	9	43	27	95	7	129	415
08:45 AM	14	19	53	86	6	128	16	150	11	37	8	56	35	109	13	157	449
Total	76	126	191	393	38	596	64	698	51	190	40	281	121	442	41	604	1976
Grand Total	151	393	403	947	129	1166	157	1452	125	536	79	740	277	865	75	1217	4356
Apprch %	15.9	41.5	42.6		8.9	80.3	10.8		16.9	72.4	10.7		22.8	71.1	6.2		
Total %	3.5	9	9.3	21.7	3	26.8	3.6	33.3	2.9	12.3	1.8	17	6.4	19.9	1.7	27.9	

Start Time	Sequoia Avenue Southbound				Los Angeles Avenue Westbound				Sequoia Avenue Northbound				Los Angeles Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	17	97	53	167	27	178	30	235	21	106	12	139	47	106	9	162	703
07:45 AM	31	101	89	221	31	200	51	282	28	166	9	203	67	173	13	253	959
08:00 AM	25	54	55	134	7	184	16	207	18	91	16	125	28	140	14	182	648
08:15 AM	21	32	44	97	14	144	16	174	14	36	7	57	31	98	7	136	464
Total Volume	94	284	241	619	79	706	113	898	81	399	44	524	173	517	43	733	2774
% App. Total	15.2	45.9	38.9		8.8	78.6	12.6		15.5	76.1	8.4		23.6	70.5	5.9		
PHF	.758	.703	.677	.700	.637	.883	.554	.796	.723	.601	.688	.645	.646	.747	.768	.724	.723

City of Simi Valley
 N/S: Sequoia Avenue
 E/W: Los Angeles Avenue
 Weather: Clear

File Name : 10_SMV_Sequoia_Los Angeles AM
 Site Code : 05718915
 Start Date : 12/4/2018
 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:30 AM				07:15 AM				07:30 AM			
+0 mins.	12	45	45	102	27	178	30	235	15	41	10	66	47	106	9	162
+15 mins.	17	97	53	167	31	200	51	282	21	106	12	139	67	173	13	253
+30 mins.	31	101	89	221	7	184	16	207	28	166	9	203	28	140	14	182
+45 mins.	25	54	55	134	14	144	16	174	18	91	16	125	31	98	7	136
Total Volume	85	297	242	624	79	706	113	898	82	404	47	533	173	517	43	733
% App. Total	13.6	47.6	38.8		8.8	78.6	12.6		15.4	75.8	8.8		23.6	70.5	5.9	
PHF	.685	.735	.680	.706	.637	.883	.554	.796	.732	.608	.734	.656	.646	.747	.768	.724

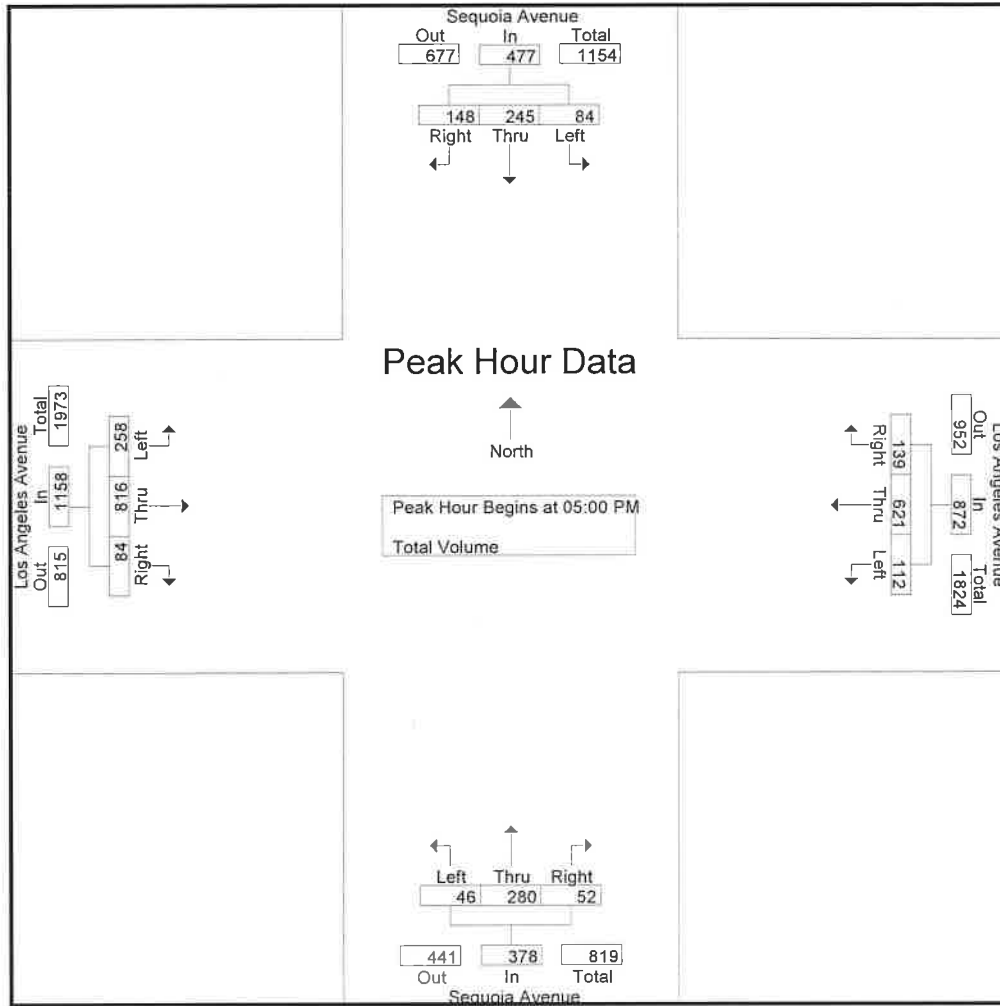
City of Simi Valley
 N/S: Sequoia Avenue
 E/W: Los Angeles Avenue
 Weather: Clear

File Name : 10_SMV_Sequoia_Los Angeles PM
 Site Code : 05718915
 Start Date : 12/4/2018
 Page No : 1

Groups Printed- Total Volume

Start Time	Sequoia Avenue Southbound				Los Angeles Avenue Westbound				Sequoia Avenue Northbound				Los Angeles Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	17	65	38	120	19	132	20	171	15	59	6	80	47	154	28	229	600
04:15 PM	20	61	52	133	18	119	25	162	14	65	9	88	53	157	18	228	611
04:30 PM	19	56	37	112	21	152	28	201	15	54	18	87	48	164	22	234	634
04:45 PM	19	57	37	113	27	159	39	225	19	61	11	91	61	194	16	271	700
Total	75	239	164	478	85	562	112	759	63	239	44	346	209	669	84	962	2545
05:00 PM	23	67	34	124	29	193	36	258	11	64	10	85	70	207	21	298	765
05:15 PM	21	68	36	125	36	151	39	226	16	74	15	105	63	185	23	271	727
05:30 PM	15	60	40	115	21	136	35	192	10	68	14	92	66	187	20	273	672
05:45 PM	25	50	38	113	26	141	29	196	9	74	13	96	59	237	20	316	721
Total	84	245	148	477	112	621	139	872	46	280	52	378	258	816	84	1158	2885
Grand Total	159	484	312	955	197	1183	251	1631	109	519	96	724	467	1485	168	2120	5430
Apprch %	16.6	50.7	32.7		12.1	72.5	15.4		15.1	71.7	13.3		22	70	7.9		
Total %	2.9	8.9	5.7	17.6	3.6	21.8	4.6	30	2	9.6	1.8	13.3	8.6	27.3	3.1	39	

Start Time	Sequoia Avenue Southbound				Los Angeles Avenue Westbound				Sequoia Avenue Northbound				Los Angeles Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	23	67	34	124	29	193	36	258	11	64	10	85	70	207	21	298	765
05:15 PM	21	68	36	125	36	151	39	226	16	74	15	105	63	185	23	271	727
05:30 PM	15	60	40	115	21	136	35	192	10	68	14	92	66	187	20	273	672
05:45 PM	25	50	38	113	26	141	29	196	9	74	13	96	59	237	20	316	721
Total Volume	84	245	148	477	112	621	139	872	46	280	52	378	258	816	84	1158	2885
% App. Total	17.6	51.4	31		12.8	71.2	15.9		12.2	74.1	13.8		22.3	70.5	7.3		
PHF	.840	.901	.925	.954	.778	.804	.891	.845	.719	.946	.867	.900	.921	.861	.913	.916	.943



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:15 PM				04:30 PM				05:00 PM				05:00 PM			
+0 mins.	20	61	52	133	21	152	28	201	11	64	10	85	70	207	21	298
+15 mins.	19	56	37	112	27	159	39	225	16	74	15	105	63	185	23	271
+30 mins.	19	57	37	113	29	193	36	258	10	68	14	92	66	187	20	273
+45 mins.	23	67	34	124	36	151	39	226	9	74	13	96	59	237	20	316
Total Volume	81	241	160	482	113	655	142	910	46	280	52	378	258	816	84	1158
% App. Total	16.8	50	33.2		12.4	72	15.6		12.2	74.1	13.8		22.3	70.5	7.3	
PHF	.880	.899	.769	.906	.785	.848	.910	.882	.719	.946	.867	.900	.921	.861	.913	.916

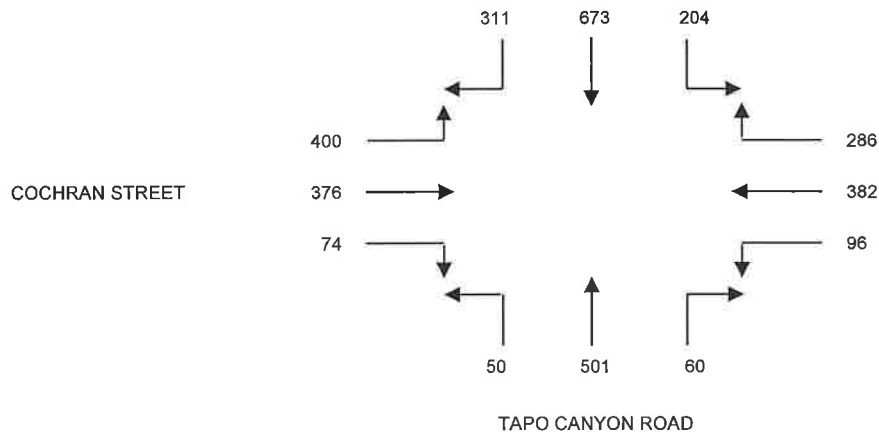
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: LLG - PASADENA
 PROJECT: HACIENDA PEPPERTREE PROJECT - SIMI VALLEY
 DATE: WEDNESDAY, MARCH 08, 2018
 PERIOD: 07:00 AM TO 09:00 AM
 INTERSECTION: N/S TAPO CANYON ROAD
 E/W COCHRAN STREET
 FILE NUMBER: 1-AM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0700-0715	26	105	38	70	38	10	7	112	4	5	56	85
0715-0730	34	100	29	78	50	9	5	107	3	8	40	99
0730-0745	47	122	29	84	60	14	9	112	5	10	62	83
0745-0800	76	171	38	77	94	23	16	140	11	15	110	93
0800-0815	101	180	45	71	116	37	20	149	19	29	120	118
0815-0830	81	169	66	70	98	24	15	121	13	20	96	119
0830-0845	53	153	55	68	74	12	9	91	7	10	50	70
0845-0900	51	110	50	61	72	9	7	79	7	5	62	69

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
0700-0800	183	498	134	309	242	56	37	471	23	38	268	360	2619
0715-0815	258	573	141	310	320	83	50	508	38	62	332	393	3068
0730-0830	305	642	178	302	368	98	60	522	48	74	388	413	3398
0745-0845	311	673	204	286	382	96	60	501	50	74	376	400	3413
0800-0900	286	612	216	270	360	82	51	440	46	64	328	376	3131

A.M. PEAK HOUR
0745-0845



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
 329 DIAMOND STREET
 ARCADIA, CALIFORNIA 91005
 PH: 626-446-7978
 FAX: 626-446-2877

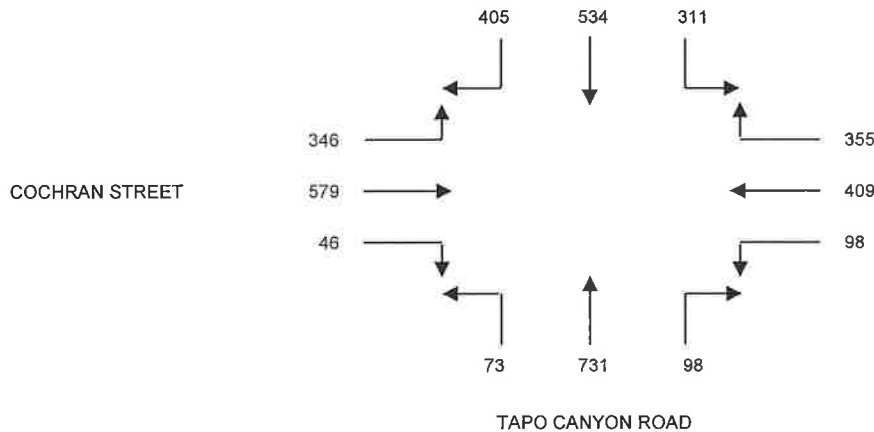
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: LLG - PASADENA
 PROJECT: HACIENDA PEPPERTREE PROJECT - SIMI VALLEY
 DATE: WEDNESDAY, MARCH 08, 2018
 PERIOD: 04:00 PM TO 06:00 PM
 INTERSECTION: N/S TAPO CANYON ROAD
 E/W COCHRAN STREET
 FILE NUMBER: 1-PM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0400-0415	88	126	68	76	98	15	12	175	14	13	129	74
0415-0430	78	137	50	69	82	29	14	180	20	10	127	65
0430-0445	95	140	59	75	90	33	23	191	19	11	127	87
0445-0500	95	131	77	77	100	24	21	183	17	6	130	84
0500-0515	107	133	91	96	118	20	33	196	16	10	177	85
0515-0530	108	130	84	107	101	21	21	161	21	19	145	90
0530-0545	97	121	72	95	91	19	16	152	13	18	135	94
0545-0600	88	108	62	85	108	15	18	135	12	15	130	80

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
0400-0500	356	534	254	297	370	101	70	729	70	40	513	310	3644
0415-0515	375	541	277	317	390	106	91	750	72	37	561	321	3838
0430-0530	405	534	311	355	409	98	98	731	73	46	579	346	3985
0445-0545	407	515	324	375	410	84	91	692	67	53	587	353	3958
0500-0600	400	492	309	383	418	75	88	644	62	62	587	349	3869

P.M. PEAK HOUR
0430-0530



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
 329 DIAMOND STREET
 ARCADIA, CALIFORNIA 91005
 PH: 626-446-7978
 FAX: 626-446-2877

City of Simi Valley
 N/S: Tapo Street
 E/W: Cochran Street
 Weather: Clear

File Name : 01_SMV_Tapo_Cochran AM
 Site Code : 16618419
 Start Date : 5/22/2018
 Page No : 1

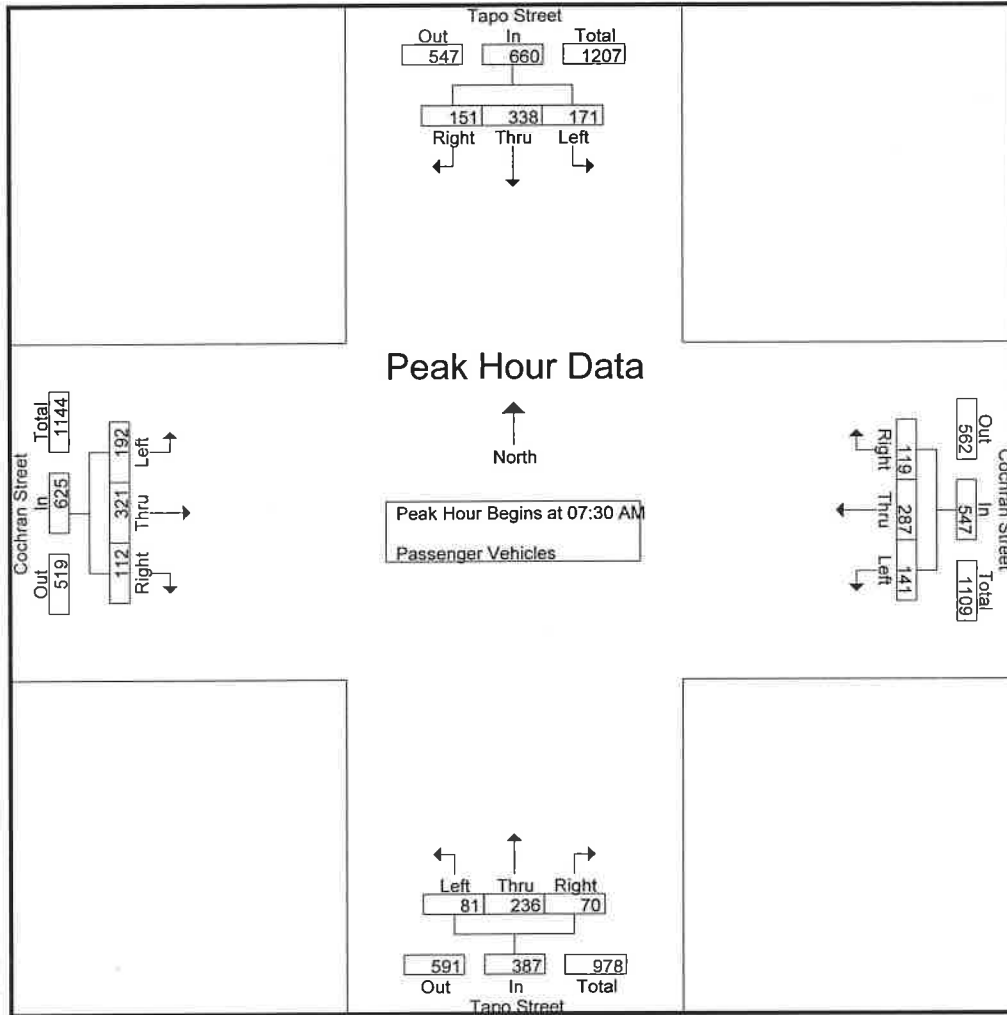
Groups Printed- Passenger Vehicles

Start Time	Tapo Street Southbound				Cochran Street Westbound				Tapo Street Northbound				Cochran Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	16	36	12	64	22	51	8	81	14	23	16	53	13	36	7	56	254
07:15 AM	21	40	27	88	18	53	17	88	18	35	13	66	19	55	17	91	333
07:30 AM	72	77	37	186	27	84	29	140	19	69	20	108	46	97	22	165	599
07:45 AM	42	114	48	204	46	82	33	161	27	50	17	94	60	106	34	200	659
Total	151	267	124	542	113	270	87	470	78	177	66	321	138	294	80	512	1845
08:00 AM	36	86	39	161	38	62	34	134	20	60	16	96	56	73	31	160	551
08:15 AM	21	61	27	109	30	59	23	112	15	57	17	89	30	45	25	100	410
08:30 AM	24	60	21	105	25	47	15	87	24	47	21	92	19	57	21	97	381
08:45 AM	15	49	19	83	34	40	11	85	32	44	23	99	20	48	33	101	368
Total	96	256	106	458	127	208	83	418	91	208	77	376	125	223	110	458	1710
09:00 AM	15	44	12	71	30	70	7	107	20	39	15	74	21	51	20	92	344
09:15 AM	21	38	17	76	30	42	10	82	32	35	22	89	12	46	20	78	325
09:30 AM	10	40	22	72	21	36	12	69	29	33	17	79	16	28	26	70	290
09:45 AM	15	61	12	88	19	51	15	85	30	43	19	92	16	37	43	96	361
Total	61	183	63	307	100	199	44	343	111	150	73	334	65	162	109	336	1320
Grand Total	308	706	293	1307	340	677	214	1231	280	535	216	1031	328	679	299	1306	4875
Apprch %	23.6	54	22.4		27.6	55	17.4		27.2	51.9	21		25.1	52	22.9		
Total %	6.3	14.5	6	26.8	7	13.9	4.4	25.3	5.7	11	4.4	21.1	6.7	13.9	6.1	26.8	

Start Time	Tapo Street Southbound				Cochran Street Westbound				Tapo Street Northbound				Cochran Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	72	77	37	186	27	84	29	140	19	69	20	108	46	97	22	165	599
07:45 AM	42	114	48	204	46	82	33	161	27	50	17	94	60	106	34	200	659
08:00 AM	36	86	39	161	38	62	34	134	20	60	16	96	56	73	31	160	551
08:15 AM	21	61	27	109	30	59	23	112	15	57	17	89	30	45	25	100	410
Total Volume	171	338	151	660	141	287	119	547	81	236	70	387	192	321	112	625	2219
% App. Total	25.9	51.2	22.9		25.8	52.5	21.8		20.9	61	18.1		30.7	51.4	17.9		
PHF	.594	.741	.786	.809	.766	.854	.875	.849	.750	.855	.875	.896	.800	.757	.824	.781	.842

City of Simi Valley
 N/S: Tapo Street
 E/W: Cochran Street
 Weather: Clear

File Name : 01_SMV_Tapo_Cochran AM
 Site Code : 16618419
 Start Date : 5/22/2018
 Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	72	77	37	186	27	84	29	140	19	69	20	108	46	97	22	165
+15 mins.	42	114	48	204	46	82	33	161	27	50	17	94	60	106	34	200
+30 mins.	36	86	39	161	38	62	34	134	20	60	16	96	56	73	31	160
+45 mins.	21	61	27	109	30	59	23	112	15	57	17	89	30	45	25	100
Total Volume	171	338	151	660	141	287	119	547	81	236	70	387	192	321	112	625
% App. Total	25.9	51.2	22.9		25.8	52.5	21.8		20.9	61	18.1		30.7	51.4	17.9	
PHF	.594	.741	.786	.809	.766	.854	.875	.849	.750	.855	.875	.896	.800	.757	.824	.781

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 (951) 268-6268

City of Simi Valley
 N/S: Tapo Street
 E/W: Cochran Street
 Weather: Clear

File Name : 01_SMV_Tapo_Cochran PM
 Site Code : 16618419
 Start Date : 5/22/2018
 Page No : 1

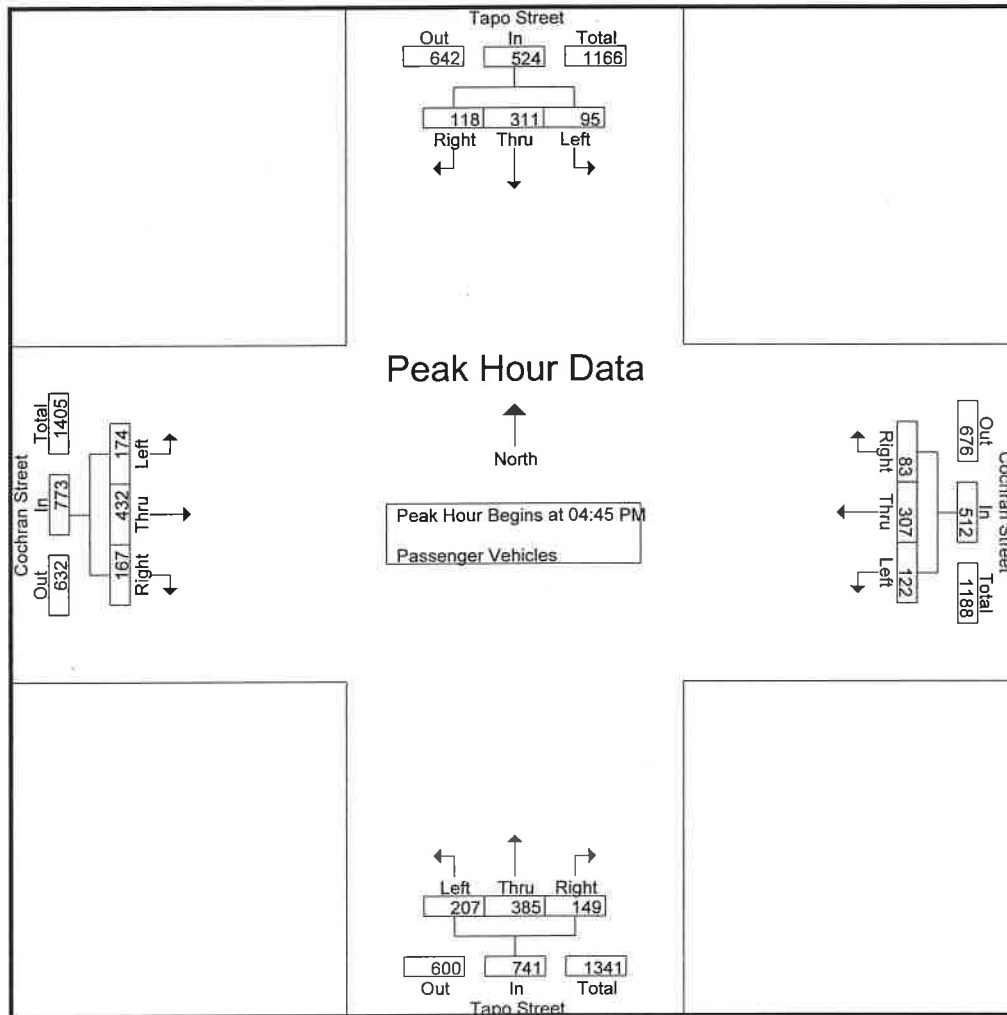
Groups Printed- Passenger Vehicles

Start Time	Tapo Street Southbound				Cochran Street Westbound				Tapo Street Northbound				Cochran Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
03:00 PM	34	90	46	170	33	87	21	141	39	90	23	152	34	104	43	181	644
03:15 PM	20	83	33	136	39	71	21	131	46	62	20	128	43	114	40	197	592
03:30 PM	12	49	33	94	30	63	10	103	46	85	26	157	36	94	47	177	531
03:45 PM	17	58	33	108	23	58	17	98	38	76	22	136	28	84	39	151	493
Total	83	280	145	508	125	279	69	473	169	313	91	573	141	396	169	706	2260
04:00 PM	31	80	40	151	29	60	18	107	43	86	33	162	39	105	33	177	597
04:15 PM	19	62	25	106	30	61	19	110	48	64	28	140	28	94	46	168	524
04:30 PM	23	62	25	110	24	73	15	112	66	99	44	209	31	89	40	160	591
04:45 PM	16	73	20	109	28	66	23	117	46	79	28	153	47	111	43	201	580
Total	89	277	110	476	111	260	75	446	203	328	133	664	145	399	162	706	2292
05:00 PM	26	96	32	154	38	85	23	146	57	96	42	195	44	97	43	184	679
05:15 PM	22	63	34	119	30	87	15	132	46	91	40	177	43	116	35	194	622
05:30 PM	31	79	32	142	26	69	22	117	58	119	39	216	40	108	46	194	669
05:45 PM	22	58	23	103	20	73	22	115	46	83	22	151	38	122	39	199	568
Total	101	296	121	518	114	314	82	510	207	389	143	739	165	443	163	771	2538
Grand Total	273	853	376	1502	350	853	226	1429	579	1030	367	1976	451	1238	494	2183	7090
Apprch %	18.2	56.8	25		24.5	59.7	15.8		29.3	52.1	18.6		20.7	56.7	22.6		
Total %	3.9	12	5.3	21.2	4.9	12	3.2	20.2	8.2	14.5	5.2	27.9	6.4	17.5	7	30.8	

Start Time	Tapo Street Southbound				Cochran Street Westbound				Tapo Street Northbound				Cochran Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	16	73	20	109	28	66	23	117	46	79	28	153	47	111	43	201	580
05:00 PM	26	96	32	154	38	85	23	146	57	96	42	195	44	97	43	184	679
05:15 PM	22	63	34	119	30	87	15	132	46	91	40	177	43	116	35	194	622
05:30 PM	31	79	32	142	26	69	22	117	58	119	39	216	40	108	46	194	669
Total Volume	95	311	118	524	122	307	83	512	207	385	149	741	174	432	167	773	2550
% App. Total	18.1	59.4	22.5		23.8	60	16.2		27.9	52	20.1		22.5	55.9	21.6		
PHF	.766	.810	.868	.851	.803	.882	.902	.877	.892	.809	.887	.858	.926	.931	.908	.961	.939

City of Simi Valley
 N/S: Tapo Street
 E/W: Cochran Street
 Weather: Clear

File Name : 01_SMV_Tapo_Cochran PM
 Site Code : 16618419
 Start Date : 5/22/2018
 Page No : 2



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:45 PM				04:45 PM			
+0 mins.	16	73	20	109	28	66	23	117	46	79	28	153	47	111	43	201
+15 mins.	26	96	32	154	38	85	23	146	57	96	42	195	44	97	43	184
+30 mins.	22	63	34	119	30	87	15	132	46	91	40	177	43	116	35	194
+45 mins.	31	79	32	142	26	69	22	117	58	119	39	216	40	108	46	194
Total Volume	95	311	118	524	122	307	83	512	207	385	149	741	174	432	167	773
% App. Total	18.1	59.4	22.5		23.8	60	16.2		27.9	52	20.1		22.5	55.9	21.6	
PHF	.766	.810	.868	.851	.803	.882	.902	.877	.892	.809	.887	.858	.926	.931	.908	.961

VOLUME

Tapo Canyon Rd N/O E Los Angeles Ave

Day: Tuesday
Date: 11/5/2019City: Simi Valley
Project #: CA19_5664_001

DAILY TOTALS					NB	SB	EB	WB	Total		
					8,283	7,990	0	0	16,273		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	10	10			20	12:00	172	141			313
00:15	8	7			15	12:15	149	126			275
00:30	8	11			19	12:30	128	107			235
00:45	3	29	6	34	9	12:45	135	584	132	506	267
01:00	1	6			7	13:00	149	130			279
01:15	2	4			6	13:15	130	126			256
01:30	7	4			11	13:30	114	125			239
01:45	5	15	2	16	7	13:45	121	514	123	504	244
02:00	0	0			0	14:00	133	117			250
02:15	3	3			6	14:15	156	100			256
02:30	12	3			15	14:30	197	120			317
02:45	7	22	5	11	12	14:45	146	632	157	494	303
03:00	4	4			8	15:00	177	151			328
03:15	10	4			14	15:15	154	122			276
03:30	9	1			10	15:30	205	137			342
03:45	10	33	8	17	18	15:45	167	703	125	535	292
04:00	10	13			23	16:00	189	138			327
04:15	17	9			26	16:15	164	145			309
04:30	24	17			41	16:30	269	129			398
04:45	27	78	34	73	61	16:45	174	796	128	540	302
05:00	44	32			76	17:00	229	165			394
05:15	47	50			97	17:15	182	153			335
05:30	73	77			150	17:30	193	126			319
05:45	81	245	154	313	235	17:45	175	779	135	579	310
06:00	79	74			153	18:00	125	132			257
06:15	86	79			165	18:15	123	113			236
06:30	101	97			198	18:30	105	127			232
06:45	108	374	133	383	241	18:45	102	455	104	476	206
07:00	135	142			277	19:00	105	89			194
07:15	116	126			242	19:15	57	66			123
07:30	115	209			324	19:30	69	79			148
07:45	174	540	266	743	440	19:45	77	308	76	310	153
08:00	154	226			380	20:00	66	69			135
08:15	88	166			254	20:15	47	71			118
08:30	103	154			257	20:30	48	50			98
08:45	95	440	149	695	244	20:45	28	189	46	236	74
09:00	97	112			209	21:00	29	42			71
09:15	85	105			190	21:15	48	45			93
09:30	102	93			195	21:30	29	59			88
09:45	105	389	89	399	194	21:45	20	126	41	187	61
10:00	105	119			224	22:00	22	38			60
10:15	104	68			172	22:15	16	37			53
10:30	77	87			164	22:30	16	24			40
10:45	124	410	99	373	223	22:45	12	66	22	121	34
11:00	122	80			202	23:00	15	22			37
11:15	118	103			221	23:15	13	15			28
11:30	123	97			220	23:30	15	16			31
11:45	141	504	96	376	237	23:45	9	52	16	69	25
TOTALS	3079	3433			6512	TOTALS	5204	4557			9761
SPLIT %	47.3%	52.7%			40.0%	SPLIT %	53.3%	46.7%			60.0%

DAILY TOTALS					NB	SB	EB	WB	Total
					8,283	7,990	0	0	16,273
AM Peak Hour	11:45	07:30			07:30	PM Peak Hour	16:30	17:00	16:30
AM Pk Volume	590	867			1398	PM Pk Volume	854	579	1429
Pk Hr Factor	0.858	0.815			0.794	Pk Hr Factor	0.794	0.877	0.898
7 - 9 Volume	980	1438	0	0	2418	4 - 6 Volume	1575	1119	0
7 - 9 Peak Hour	07:15	07:30			07:30	4 - 6 Peak Hour	16:30	17:00	0
7 - 9 Pk Volume	559	867	0	0	1398	4 - 6 Pk Volume	854	579	0
Pk Hr Factor	0.803	0.815	0.000	0.000	0.794	Pk Hr Factor	0.794	0.877	0.000

VOLUME

Tapo St N/O E Los Angeles Ave

Day: Tuesday
Date: 11/5/2019City: Simi Valley
Project #: CA19_5664_002

DAILY TOTALS					NB	SB	EB	WB	Total		
					7,145	6,774	0	0	13,919		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	7	8			15	12:00	132	115			247
00:15	3	6			9	12:15	156	105			261
00:30	3	7			10	12:30	150	138			288
00:45	2	15	2	23	4	12:45	116	554	150	508	266
01:00	1	6			7	13:00	111	121			232
01:15	1	5			6	13:15	107	127			234
01:30	2	1			3	13:30	109	113			222
01:45	1	5	0	12	1	13:45	128	455	100	461	228
02:00	0	3			3	14:00	128	119			247
02:15	1	1			2	14:15	129	125			254
02:30	2	0			2	14:30	165	129			294
02:45	2	5	0	4	2	14:45	150	572	164	537	314
03:00	2	2			4	15:00	173	176			349
03:15	3	2			5	15:15	128	139			267
03:30	1	0			1	15:30	172	137			309
03:45	3	9	7	11	10	15:45	129	602	107	559	236
04:00	8	4			12	16:00	138	160			298
04:15	8	2			10	16:15	150	124			274
04:30	8	4			12	16:30	165	127			292
04:45	7	31	13	23	20	16:45	143	596	120	531	263
05:00	16	14			30	17:00	189	145			334
05:15	12	12			24	17:15	170	145			315
05:30	18	17			35	17:30	171	145			316
05:45	24	70	31	74	55	17:45	148	678	142	577	290
06:00	37	34			71	18:00	118	134			252
06:15	40	30			70	18:15	132	95			227
06:30	31	55			86	18:30	105	112			217
06:45	66	174	63	182	129	18:45	88	443	90	431	178
07:00	73	74			147	19:00	85	89			174
07:15	77	71			148	19:15	64	71			135
07:30	97	157			254	19:30	85	69			154
07:45	141	388	157	459	298	19:45	73	307	67	296	140
08:00	160	131			291	20:00	64	62			126
08:15	127	128			255	20:15	43	63			106
08:30	109	103			212	20:30	48	58			106
08:45	100	496	104	466	204	20:45	29	184	48	231	77
09:00	100	91			191	21:00	36	43			79
09:15	96	90			186	21:15	48	33			81
09:30	90	83			173	21:30	24	27			51
09:45	99	385	89	353	188	21:45	26	134	24	127	50
10:00	108	74			182	22:00	16	17			33
10:15	102	82			184	22:15	22	14			36
10:30	117	90			207	22:30	5	16			21
10:45	110	437	92	338	202	22:45	9	52	16	63	25
11:00	154	101			255	23:00	8	11			19
11:15	100	115			215	23:15	8	8			16
11:30	126	119			245	23:30	5	15			20
11:45	145	525	126	461	271	23:45	7	28	13	47	20
TOTALS	2540	2406			4946	TOTALS	4605	4368			8973
SPLIT %	51.4%	48.6%			35.5%	SPLIT %	51.3%	48.7%			64.5%

DAILY TOTALS					NB	SB	EB	WB	Total
					7,145	6,774	0	0	13,919
AM Peak Hour	11:45	07:30			07:30	PM Peak Hour	17:00	14:45	17:00
AM Pk Volume	583	573			1098	PM Pk Volume	678	616	1255
Pk Hr Factor	0.934	0.912			0.921	Pk Hr Factor	0.897	0.875	0.939
7 - 9 Volume	884	925	0	0	1809	4 - 6 Volume	1274	1108	2382
7 - 9 Peak Hour	07:45	07:30			07:30	4 - 6 Peak Hour	17:00	17:00	17:00
7 - 9 Pk Volume	537	573	0	0	1098	4 - 6 Pk Volume	678	577	1255
Pk Hr Factor	0.839	0.912	0.000	0.000	0.921	Pk Hr Factor	0.897	0.995	0.000

VOLUME

E Los Angeles Ave Bet. Angus Ave & Ralston St

Day: Tuesday
Date: 11/5/2019

City: Simi Valley
Project #: CA19_5664_003

DAILY TOTALS						NB	SB	EB	WB	Total		
						0	0	10,894	9,662	20,556		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
00:00			17	10	27	12:00			186	150	336	
00:15			4	7	11	12:15			152	148	300	
00:30			7	8	15	12:30			154	144	298	
00:45			1	29	5	12:45			171	663	137	579
01:00			2	4	6	13:00			133	137	270	
01:15			4	3	7	13:15			165	120	285	
01:30			3	1	4	13:30			172	133	305	
01:45			5	14	1	13:45			159	629	186	576
02:00			2	0	2	14:00			146	143	289	
02:15			2	0	2	14:15			202	122	324	
02:30			6	1	7	14:30			206	202	408	
02:45			4	14	3	14:45			232	786	198	665
03:00			2	3	5	15:00			231	192	423	
03:15			2	4	6	15:15			212	167	379	
03:30			1	5	6	15:30			307	175	482	
03:45			1	6	6	15:45			221	971	178	712
04:00			10	5	15	16:00			241	139	380	
04:15			4	7	11	16:15			240	168	408	
04:30			6	12	18	16:30			290	188	478	
04:45			20	40	18	16:45			313	1084	194	689
05:00			34	17	51	17:00			363	193	556	
05:15			15	30	45	17:15			280	177	457	
05:30			34	39	73	17:30			271	221	492	
05:45			62	145	67	17:45			265	1179	163	754
06:00			90	54	144	18:00			276	142	418	
06:15			62	86	148	18:15			254	179	433	
06:30			97	100	197	18:30			201	142	343	
06:45			103	352	180	18:45			145	876	158	621
07:00			109	130	239	19:00			137	99	236	
07:15			131	171	302	19:15			113	102	215	
07:30			187	328	515	19:30			142	128	270	
07:45			227	654	294	19:45			102	494	113	442
08:00			221	249	470	20:00			97	99	196	
08:15			170	206	376	20:15			103	71	174	
08:30			141	178	319	20:30			104	57	161	
08:45			165	697	170	20:45			77	381	54	281
09:00			120	135	255	21:00			72	46	118	
09:15			106	120	226	21:15			42	87	129	
09:30			105	148	253	21:30			53	45	98	
09:45			119	450	142	21:45			38	205	34	212
10:00			121	136	257	22:00			35	34	69	
10:15			118	116	234	22:15			31	25	56	
10:30			121	114	235	22:30			25	13	38	
10:45			134	494	136	22:45			15	106	15	87
11:00			151	123	274	23:00			19	17	36	
11:15			144	124	268	23:15			7	9	16	
11:30			130	141	271	23:30			13	11	24	
11:45			152	577	158	23:45			9	48	12	49
TOTALS				3472	3995	7467	TOTALS			7422	5667	13089
SPLIT %				46.5%	53.5%	36.3%	SPLIT %			56.7%	43.3%	63.7%

DAILY TOTALS						NB	SB	EB	WB	Total	
						0	0	10,894	9,662	20,556	
AM Peak Hour			07:30	07:30	07:30	PM Peak Hour			16:30	16:45	16:45
AM Pk Volume			805	1077	1882	PM Pk Volume			1246	785	2012
Pk Hr Factor			0.887	0.821	0.903	Pk Hr Factor			0.858	0.888	0.905
7 - 9 Volume	0	0	1351	1726	3077	4 - 6 Volume	0	0	2263	1443	3706
7 - 9 Peak Hour			07:30	07:30	07:30	4 - 6 Peak Hour			16:30	16:45	16:45
7 - 9 Pk Volume	0	0	805	1077	1882	4 - 6 Pk Volume	0	0	1246	785	2012
Pk Hr Factor	0.000	0.000	0.887	0.821	0.903	Pk Hr Factor	0.000	0.000	0.858	0.888	0.905

VOLUME

Hidden Ranch Dr N/O Hidden Vista Ct

Day: Tuesday
Date: 11/5/2019City: Simi Valley
Project #: CA19_5664_004

DAILY TOTALS					NB	SB	EB	WB	Total		
					1,673	1,678	0	0	3,351		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	4	8			12	12:00	25	21			46
00:15	1	1			2	12:15	16	18			34
00:30	0	2			2	12:30	19	20			39
00:45	0	5	1	12	1	12:45	18	78	20	79	38
01:00	0	1			1	13:00	23	14			37
01:15	0	2			2	13:15	22	23			45
01:30	0	3			3	13:30	22	24			46
01:45	0	1	7		1	13:45	27	94	17	78	44
02:00	0	1			1	14:00	23	15			38
02:15	0	0			0	14:15	32	26			58
02:30	0	2			2	14:30	21	28			49
02:45	0	0	3		0	14:45	21	97	38	107	59
03:00	0	3			3	15:00	25	35			60
03:15	3	0			3	15:15	32	28			60
03:30	1	0			1	15:30	33	47			80
03:45	2	6	0	3	2	15:45	21	111	44	154	65
04:00	3	3			6	16:00	19	24			43
04:15	2	1			3	16:15	27	37			64
04:30	2	0			2	16:30	23	41			64
04:45	5	12	0	4	5	16:45	27	96	43	145	70
05:00	10	1			11	17:00	30	45			75
05:15	8	1			9	17:15	33	40			73
05:30	12	1			13	17:30	20	44			64
05:45	15	45	4	7	19	17:45	21	104	48	177	69
06:00	27	3			30	18:00	21	46			67
06:15	26	4			30	18:15	30	47			77
06:30	38	7			45	18:30	22	30			52
06:45	48	139	16	30	64	18:45	30	103	33	156	63
07:00	49	11			60	19:00	11	40			51
07:15	53	14			67	19:15	20	36			56
07:30	77	14			91	19:30	18	26			44
07:45	53	232	33	72	86	19:45	16	65	30	132	46
08:00	47	24			71	20:00	9	25			34
08:15	41	24			65	20:15	13	26			39
08:30	34	20			54	20:30	5	28			33
08:45	25	147	14	82	39	20:45	5	32	22	101	27
09:00	24	17			41	21:00	16	23			39
09:15	23	16			39	21:15	11	26			37
09:30	19	7			26	21:30	5	18			23
09:45	22	88	16	56	38	21:45	10	42	19	86	29
10:00	24	16			40	22:00	5	12			17
10:15	22	11			33	22:15	2	13			15
10:30	19	15			34	22:30	4	11			15
10:45	25	90	12	54	37	22:45	4	15	7	43	11
11:00	21	13			34	23:00	1	6			7
11:15	10	13			23	23:15	1	6			7
11:30	21	17			38	23:30	2	8			10
11:45	13	65	20	63	33	23:45	3	7	7	27	10
TOTALS	829	393			1222	TOTALS	844	1285			2129
SPLIT %	67.8%	32.2%			36.5%	SPLIT %	39.6%	60.4%			63.5%

DAILY TOTALS					NB	SB	EB	WB	Total		
					1,673	1,678	0	0	3,351		
AM Peak Hour	07:00	07:45		07:15	PM Peak Hour	16:30	17:30		16:30		
AM Pk Volume	232	101		315	PM Pk Volume	113	185		282		
Pk Hr Factor	0.753	0.765		0.865	Pk Hr Factor	0.856	0.964		0.940		
7 - 9 Volume	379	154	0	0	533	4 - 6 Volume	200	322	0	0	522
7 - 9 Peak Hour	07:00	07:45		07:15	4 - 6 Peak Hour	16:30	17:00		16:30		
7 - 9 Pk Volume	232	101	0	0	315	4 - 6 Pk Volume	113	177	0	0	282
Pk Hr Factor	0.753	0.765	0.000	0.000	0.865	Pk Hr Factor	0.856	0.922	0.000	0.000	0.940

Appendix B. Construction Year (2022) Traffic Redistribution

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HCM 6th Signalized Intersection Capacity Analysis

1: Tapo Canyon Rd & E Los Angeles Ave

06/08/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	483	34	183	832	109	14	278	361	171	377	309
Future Volume (veh/h)	135	483	34	183	832	109	14	278	361	171	377	309
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	161	575	40	218	990	130	17	331	430	204	449	368
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	193	930	65	254	1100	623	314	1061	473	400	1289	575
HCM Platoon Ratio	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.00
Prop Arrive On Green	0.18	0.46	0.46	0.24	0.51	0.51	0.03	0.50	0.50	0.14	0.60	0.36
Unsig. Movement Delay												
Ln Grp Delay, s/veh	53.2	23.2	23.1	39.8	25.3	12.5	20.9	18.0	45.5	18.5	13.3	29.2
Ln Grp LOS	D	C	C	D	C	B	C	B	D	B	B	C
Approach Vol, veh/h		776			1338			778			1021	
Approach Delay, s/veh		29.4			26.4			33.2			20.1	
Approach LOS		C			C			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	3.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		12.0	31.4	17.3	29.3	6.2	37.1	14.3	32.4			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		7.5	21.5	19.3	23.7	5.0	24.0	12.5	30.5			
Max Allow Headway (MAH), s		3.7	4.3	3.7	4.9	3.7	4.5	3.7	4.8			
Max Q Clear (g_c+I1), s		9.1	24.4	12.6	13.6	2.6	19.3	9.8	24.7			
Green Ext Time (g_e), s		0.0	0.0	0.3	2.4	0.0	1.8	0.1	3.2			
Prob of Phs Call (p_c)		0.99	1.00	1.00	1.00	0.35	1.00	0.98	1.00			
Prob of Max Out (p_x)		1.00	0.00	0.10	0.30	1.00	0.00	1.00	0.88			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3371		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		234		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis

1: Tapo Canyon Rd & E Los Angeles Ave

06/08/2020

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	204	0	218	0	17	0	161	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	7.1	0.0	10.6	0.0	0.6	0.0	7.8	0.0
Cycle Q Clear Time (g_c), s	7.1	0.0	10.6	0.0	0.6	0.0	7.8	0.0
Perm LT Sat Flow (s_l), veh/h/ln	705	0	0	0	669	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	28.9	0.0	0.0	0.0	26.9	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	21.9	0.0	0.0	0.0	26.9	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	400	0	254	0	314	0	193	0
V/C Ratio (X)	0.51	0.00	0.86	0.00	0.05	0.00	0.83	0.00
Avail Cap (c_a), veh/h	400	0	382	0	379	0	247	0
Upstream Filter (I)	1.00	0.00	0.49	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	17.4	0.0	33.5	0.0	20.9	0.0	36.1	0.0
Incr Delay (d2), s/veh	1.1	0.0	6.3	0.0	0.1	0.0	17.1	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	18.5	0.0	39.8	0.0	20.9	0.0	53.2	0.0
1st-Term Q (Q1), veh/ln	2.4	0.0	3.9	0.0	0.2	0.0	3.0	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.4	0.0	0.0	0.0	0.9	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.5	0.0	4.3	0.0	0.2	0.0	3.9	0.0
%ile Storage Ratio (RQ%)	0.19	0.00	0.41	0.00	0.02	0.00	0.35	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	331	0	303	0	449	0	990
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	5.0	0.0	11.6	0.0	5.7	0.0	22.7
Cycle Q Clear Time (g_c), s	0.0	5.0	0.0	11.6	0.0	5.7	0.0	22.7
Lane Grp Cap (c), veh/h	0	1061	0	490	0	1289	0	1100
V/C Ratio (X)	0.00	0.31	0.00	0.62	0.00	0.35	0.00	0.90
Avail Cap (c_a), veh/h	0	1061	0	490	0	1289	0	1204
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.49
Uniform Delay (d1), s/veh	0.0	17.2	0.0	20.8	0.0	12.6	0.0	20.6
Incr Delay (d2), s/veh	0.0	0.8	0.0	2.3	0.0	0.7	0.0	4.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.0	0.0	23.2	0.0	13.3	0.0	25.3
1st-Term Q (Q1), veh/ln	0.0	1.8	0.0	3.8	0.0	1.9	0.0	5.9
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.3	0.0	0.1	0.0	0.7

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

06/08/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.9	0.0	4.1	0.0	2.0	0.0	6.7
%ile Storage Ratio (RQ%)	0.00	0.18	0.00	0.13	0.00	0.67	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	430	0	312	0	368	0	130
Grp Sat Flow (s), veh/h/ln	0	1585	0	1828	0	1585	0	1585
Q Serve Time (g_s), s	0.0	22.4	0.0	11.6	0.0	17.3	0.0	3.7
Cycle Q Clear Time (g_c), s	0.0	22.4	0.0	11.6	0.0	17.3	0.0	3.7
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.13	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	473	0	504	0	575	0	623
V/C Ratio (X)	0.00	0.91	0.00	0.62	0.00	0.64	0.00	0.21
Avail Cap (c_a), veh/h	0	473	0	504	0	575	0	669
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.49
Uniform Delay (d1), s/veh	0.0	21.6	0.0	20.8	0.0	23.8	0.0	12.5
Incr Delay (d2), s/veh	0.0	23.9	0.0	2.3	0.0	5.4	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	45.5	0.0	23.1	0.0	29.2	0.0	12.5
1st-Term Q (Q1), veh/ln	0.0	5.4	0.0	3.9	0.0	5.9	0.0	1.1
2nd-Term Q (Q2), veh/ln	0.0	3.1	0.0	0.3	0.0	0.9	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	8.5	0.0	4.2	0.0	6.8	0.0	1.1
%ile Storage Ratio (RQ%)	0.00	1.44	0.00	0.14	0.00	0.51	0.00	0.18
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

2: Tapo St & E Los Angeles Ave

06/08/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↔		↔	↕↔		↔	↕↔		↔	↕	↔
Traffic Volume (veh/h)	303	591	59	66	796	180	19	36	31	155	109	295
Future Volume (veh/h)	303	591	59	66	796	180	19	36	31	155	109	295
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	337	657	66	73	884	200	21	40	34	172	121	328
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	432	1276	128	104	936	212	382	626	474	530	608	713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.13	0.39	0.39	0.06	0.32	0.32	0.32	0.32	0.32	0.32	0.32	0.32
Unsig. Movement Delay												
Ln Grp Delay, s/veh	32.4	14.4	14.4	35.9	44.2	44.6	16.3	14.2	14.3	18.1	15.3	13.6
Ln Grp LOS	C	B	B	D	D	D	B	B	B	B	B	B
Approach Vol, veh/h		1060			1157			95			621	
Approach Delay, s/veh		20.1			43.8			14.7			15.2	
Approach LOS		C			D			B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	2.0	4.0		5.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			24.0	8.0	28.0		24.0	12.0	24.0			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			19.5	6.7	20.3		19.5	7.5	19.5			
Max Allow Headway (MAH), s			5.1	3.7	4.9		4.1	3.7	5.0			
Max Q Clear (g_c+I1), s			5.8	4.4	11.2		10.6	7.7	20.0			
Green Ext Time (g_e), s			0.3	0.0	2.7		1.6	0.0	0.0			
Prob of Phs Call (p_c)			1.00	0.70	1.00		1.00	1.00	1.00			
Prob of Max Out (p_x)			0.00	1.00	0.45		0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			941	1781			1326	3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1927		3261		1870		2879			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1457		327		1585		651			
Left Lane Group Data												
Assigned Mvmt		0	5	3	0	0	1	7	0			
Lane Assignment			L	L (Prot)			L	L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis

2: Tapo St & E Los Angeles Ave

06/08/2020

Lanes in Grp	0	1	1	0	0	1	2	0
Grp Vol (v), veh/h	0	21	73	0	0	172	337	0
Grp Sat Flow (s), veh/h/ln	0	941	1781	0	0	1326	1728	0
Q Serve Time (g_s), s	0.0	1.0	2.4	0.0	0.0	6.2	5.7	0.0
Cycle Q Clear Time (g_c), s	0.0	3.8	2.4	0.0	0.0	7.1	5.7	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	941	0	0	0	1326	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	19.5	0.0	0.0	0.0	19.5	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	16.7	0.0	0.0	0.0	18.5	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	1.0	0.0	0.0	0.0	6.2	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	382	104	0	0	530	432	0
V/C Ratio (X)	0.00	0.05	0.70	0.00	0.00	0.32	0.78	0.00
Avail Cap (c_a), veh/h	0	382	199	0	0	530	432	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	1.00	0.77	0.00
Uniform Delay (d1), s/veh	0.0	16.0	27.7	0.0	0.0	16.5	25.5	0.0
Incr Delay (d2), s/veh	0.0	0.3	8.1	0.0	0.0	1.6	7.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.3	35.9	0.0	0.0	18.1	32.4	0.0
1st-Term Q (Q1), veh/ln	0.0	0.2	0.9	0.0	0.0	1.6	2.1	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.2	0.0	0.0	0.2	0.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.2	1.2	0.0	0.0	1.8	2.5	0.0
%ile Storage Ratio (RQ%)	0.00	0.08	0.21	0.00	0.00	0.47	0.24	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	36	0	358	0	121	0	545
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	0.8	0.0	9.2	0.0	2.8	0.0	17.9
Cycle Q Clear Time (g_c), s	0.0	0.8	0.0	9.2	0.0	2.8	0.0	17.9
Lane Grp Cap (c), veh/h	0	577	0	695	0	608	0	577
V/C Ratio (X)	0.00	0.06	0.00	0.51	0.00	0.20	0.00	0.94
Avail Cap (c_a), veh/h	0	577	0	695	0	608	0	577
Upstream Filter (I)	0.00	1.00	0.00	0.77	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.0	0.0	13.9	0.0	14.6	0.0	19.7
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.5	0.0	0.7	0.0	24.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.2	0.0	14.4	0.0	15.3	0.0	44.2
1st-Term Q (Q1), veh/ln	0.0	0.3	0.0	3.0	0.0	1.0	0.0	6.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.1	0.0	3.9

HCM 6th Signalized Intersection Capacity Analysis

2: Tapo St & E Los Angeles Ave

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	3.0	0.0	1.1	0.0	10.0
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.08	0.00	0.30	0.00	0.64
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	38	0	365	0	328	0	539
Grp Sat Flow (s), veh/h/ln	0	1608	0	1811	0	1585	0	1753
Q Serve Time (g_s), s	0.0	1.0	0.0	9.2	0.0	8.6	0.0	18.0
Cycle Q Clear Time (g_c), s	0.0	1.0	0.0	9.2	0.0	8.6	0.0	18.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.91	0.00	0.18	0.00	1.00	0.00	0.37
Lane Grp Cap (c), veh/h	0	523	0	709	0	713	0	570
V/C Ratio (X)	0.00	0.07	0.00	0.52	0.00	0.46	0.00	0.95
Avail Cap (c_a), veh/h	0	523	0	709	0	713	0	570
Upstream Filter (I)	0.00	1.00	0.00	0.77	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.0	0.0	13.9	0.0	11.4	0.0	19.7
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.5	0.0	2.1	0.0	24.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.3	0.0	14.4	0.0	13.6	0.0	44.6
1st-Term Q (Q1), veh/ln	0.0	0.3	0.0	3.0	0.0	2.3	0.0	6.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.4	0.0	3.9
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	3.1	0.0	2.7	0.0	9.9
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.08	0.00	0.69	0.00	0.63
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	28.3
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (veh/h)	0	755	0	0	1102	0	0	0	0	0	0	0
Future Volume (veh/h)	0	755	0	0	1102	0	0	0	0	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	848	0	0	1238	0	0	0	0	0	0	0
Peak Hour Factor	0.92	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	2112	0	0	2112	0	0	571	0	0	571	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
Prop Arrive On Green	0.00	0.59	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	10.3	0.0	0.0	12.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ln Grp LOS	A	B	A	A	B	A	A	A	A	A	A	A
Approach Vol, veh/h		848			1238			0			0	
Approach Delay, s/veh		10.3			12.6			0.0			0.0	
Approach LOS		B			B							
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			58.0		32.0		58.0		32.0			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			53.5		27.5		53.5		27.5			
Max Allow Headway (MAH), s			4.9		0.0		4.9		0.0			
Max Q Clear (g_c+I1), s			13.4		0.0		21.5		0.0			
Green Ext Time (g_e), s			6.3		0.0		10.2		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3741		1870		3741		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis
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Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	53.5	0.0	27.5	0.0	53.5	0.0	27.5
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	848	0	0	0	1238	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	11.4	0.0	0.0	0.0	19.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	11.4	0.0	0.0	0.0	19.5	0.0	0.0
Lane Grp Cap (c), veh/h	0	2112	0	571	0	2112	0	571
V/C Ratio (X)	0.00	0.40	0.00	0.00	0.00	0.59	0.00	0.00
Avail Cap (c_a), veh/h	0	2112	0	571	0	2112	0	571
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	9.7	0.0	0.0	0.0	11.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.0	0.0	1.2	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
Control Delay (d), s/veh	0.0	10.3	0.0	0.0	0.0	12.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.7	0.0	0.0	0.0	6.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.4	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.8	0.0	0.0	0.0	6.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.98	0.00	0.00	0.00	1.90	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary













HCM 6th Ctrl Delay	11.6
HCM 6th LOS	B

Notes

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

HCM 6th Signalized Intersection Capacity Analysis
4: Hlidden Ranch Dr

03/08/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	231	0	0	79	0
Future Volume (veh/h)	0	0	0	0	0	0	0	231	0	0	79	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	269	0	0	92	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	767	0	0	767	0	0	767	0	0	767	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
Prop Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.41	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.4	0.0	0.0	9.5	0.0
Ln Grp LOS	A	A	A	A	A	A	A	B	A	A	A	A
Approach Vol, veh/h		0			0			269			92	
Approach Delay, s/veh		0.0			0.0			11.4			9.5	
Approach LOS								B			A	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			25.0		25.0		25.0		25.0			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			20.5		20.5		20.5		20.5			
Max Allow Headway (MAH), s			5.1		0.0		5.1		0.0			
Max Q Clear (g_c+I1), s			7.0		0.0		3.5		0.0			
Green Ext Time (g_e), s			1.2		0.0		0.3		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1870		1870		1870		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis

4: Hidden Ranch Dr

03/08/2021

Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	20.5	0.0	20.5	0.0	20.5	0.0	20.5
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	269	0	0	0	92	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	1870	0	1870	0	1870
Q Serve Time (g_s), s	0.0	5.0	0.0	0.0	0.0	1.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.0	0.0	0.0	0.0	1.5	0.0	0.0
Lane Grp Cap (c), veh/h	0	767	0	767	0	767	0	767
V/C Ratio (X)	0.00	0.35	0.00	0.00	0.00	0.12	0.00	0.00
Avail Cap (c_a), veh/h	0	767	0	767	0	767	0	767
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.2	0.0	0.0	0.0	9.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.3	0.0	0.0	0.0	0.3	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
Control Delay (d), s/veh	0.0	11.4	0.0	0.0	0.0	9.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.6	0.0	0.0	0.0	0.5	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.1	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

4: Hidden Ranch Dr

03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.9	0.0	0.0	0.0	0.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.35	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B

Notes

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

HCM 6th Signalized Intersection Capacity Analysis

5: Sequoia Ave & Cochran St

06/08/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙	↑↑	↗	↙	↑↑		↙	↑↑	
Traffic Volume (veh/h)	177	529	44	81	722	116	83	408	45	96	291	247
Future Volume (veh/h)	177	529	44	81	722	116	83	408	45	96	291	247
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	246	735	61	112	1003	161	115	567	62	133	404	343
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	330	1227	547	365	1093	487	245	1161	127	297	657	553
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.11	0.35	0.35	0.07	0.31	0.31	0.36	0.36	0.36	0.36	0.36	0.36
Unsig. Movement Delay												
Ln Grp Delay, s/veh	23.6	17.0	13.5	13.5	32.1	16.4	30.6	17.6	17.6	26.3	19.9	20.5
Ln Grp LOS	C	B	B	B	C	B	C	B	B	C	B	C
Approach Vol, veh/h		1042			1276			744			880	
Approach Delay, s/veh		18.4			28.5			19.6			21.1	
Approach LOS		B			C			B			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	1.1	3.0		6.0	1.1	3.0			
Phs Duration (G+Y+Rc), s			26.0	8.7	25.2		26.0	11.0	23.0			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			21.5	5.1	19.9		21.5	6.5	18.5			
Max Allow Headway (MAH), s			5.1	3.7	4.8		5.1	3.7	4.8			
Max Q Clear (g_c+I1), s			22.5	4.5	12.2		19.6	7.6	18.3			
Green Ext Time (g_e), s			0.0	0.0	2.9		1.0	0.0	0.1			
Prob of Phs Call (p_c)			1.00	0.85	1.00		1.00	0.98	1.00			
Prob of Max Out (p_x)			0.00	1.00	0.58		0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			714	1781			797	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3231		3554		1829		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			353		1585		1541		1585			
Left Lane Group Data												
Assigned Mvmt		0	5	3	0	0	1	7	0			
Lane Assignment			LL (Pr/Pm)					LL (Pr/Pm)				

HCM 6th Signalized Intersection Capacity Analysis

5: Sequoia Ave & Cochran St

06/08/2020

Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	115	112	0	0	133	246	0
Grp Sat Flow (s), veh/h/ln	0	714	1781	0	0	797	1781	0
Q Serve Time (g_s), s	0.0	9.5	2.5	0.0	0.0	9.3	5.6	0.0
Cycle Q Clear Time (g_c), s	0.0	20.5	2.5	0.0	0.0	17.6	5.6	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	714	682	0	0	797	482	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	21.5	18.5	0.0	0.0	21.5	18.5	0.0
Perm LT Serve Time (g_u), s	0.0	10.5	10.5	0.0	0.0	13.3	2.1	0.0
Perm LT Q Serve Time (g_ps), s	0.0	9.5	1.6	0.0	0.0	9.3	2.1	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	245	365	0	0	297	330	0
V/C Ratio (X)	0.00	0.47	0.31	0.00	0.00	0.45	0.75	0.00
Avail Cap (c_a), veh/h	0	245	391	0	0	297	330	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.93	1.00	0.00
Uniform Delay (d1), s/veh	0.0	24.3	13.0	0.0	0.0	21.8	14.6	0.0
Incr Delay (d2), s/veh	0.0	6.3	0.5	0.0	0.0	4.5	8.9	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	30.6	13.5	0.0	0.0	26.3	23.6	0.0
1st-Term Q (Q1), veh/ln	0.0	1.4	0.8	0.0	0.0	1.5	1.7	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.4	0.8	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.8	0.9	0.0	0.0	1.9	2.6	0.0
%ile Storage Ratio (RQ%)	0.00	0.46	0.15	0.00	0.00	0.32	0.38	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	2
Grp Vol (v), veh/h	0	311	0	735	0	392	0	1003
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	8.2	0.0	10.2	0.0	10.9	0.0	16.3
Cycle Q Clear Time (g_c), s	0.0	8.2	0.0	10.2	0.0	10.9	0.0	16.3
Lane Grp Cap (c), veh/h	0	638	0	1227	0	638	0	1093
V/C Ratio (X)	0.00	0.49	0.00	0.60	0.00	0.61	0.00	0.92
Avail Cap (c_a), veh/h	0	638	0	1227	0	638	0	1096
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.93	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.9	0.0	16.2	0.0	15.8	0.0	20.0
Incr Delay (d2), s/veh	0.0	2.7	0.0	0.8	0.0	4.1	0.0	12.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.6	0.0	17.0	0.0	19.9	0.0	32.1
1st-Term Q (Q1), veh/ln	0.0	2.7	0.0	3.4	0.0	3.6	0.0	5.6
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.1	0.0	0.7	0.0	1.8

HCM 6th Signalized Intersection Capacity Analysis

5: Sequoia Ave & Cochran St

06/08/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.2	0.0	3.5	0.0	4.3	0.0	7.4
%ile Storage Ratio (RQ%)	0.00	0.33	0.00	0.06	0.00	0.10	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

























Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		R		T+R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	318	0	61	0	355	0	161
Grp Sat Flow (s), veh/h/ln	0	1807	0	1585	0	1593	0	1585
Q Serve Time (g_s), s	0.0	8.2	0.0	1.6	0.0	11.0	0.0	4.7
Cycle Q Clear Time (g_c), s	0.0	8.2	0.0	1.6	0.0	11.0	0.0	4.7
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.20	0.00	1.00	0.00	0.97	0.00	1.00
Lane Grp Cap (c), veh/h	0	649	0	547	0	572	0	487
V/C Ratio (X)	0.00	0.49	0.00	0.11	0.00	0.62	0.00	0.33
Avail Cap (c_a), veh/h	0	649	0	547	0	572	0	489
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.93	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.9	0.0	13.4	0.0	15.8	0.0	16.0
Incr Delay (d2), s/veh	0.0	2.6	0.0	0.1	0.0	4.6	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.6	0.0	13.5	0.0	20.5	0.0	16.4
1st-Term Q (Q1), veh/ln	0.0	2.7	0.0	0.5	0.0	3.2	0.0	1.4
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.7	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.2	0.0	0.5	0.0	4.0	0.0	1.5
%ile Storage Ratio (RQ%)	0.00	0.34	0.00	0.08	0.00	0.09	0.00	0.25
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	22.5
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
6: Tapo Canyon Rd & Cochran St

06/08/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	409	385	76	98	391	293	51	513	61	209	689	318
Future Volume (veh/h)	409	385	76	98	391	293	51	513	61	209	689	318
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	487	458	90	117	465	349	61	611	73	249	820	379
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	535	1295	578	407	800	357	160	906	404	298	1048	798
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.21	0.36	0.36	0.07	0.22	0.22	0.05	0.26	0.26	0.09	0.29	0.29
Unsig. Movement Delay												
Ln Grp Delay, s/veh	37.8	18.7	17.2	21.6	28.5	68.0	38.5	30.8	24.3	54.2	31.7	15.0
Ln Grp LOS	D	B	B	C	C	E	D	C	C	D	C	B
Approach Vol, veh/h		1035			931			745			1448	
Approach Delay, s/veh		27.6			42.4			30.8			31.2	
Approach LOS		C			D			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		2.0	3.0	1.1	3.0	2.0	3.0	1.1	3.0			
Phs Duration (G+Y+Rc), s		11.4	24.9	10.0	33.7	8.2	28.1	21.2	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 (Gmax), s		6.9	20.4	6.5	28.2	5.0	22.3	16.7	18.0			
Max Allow Headway (MAH), s		3.8	5.1	3.8	5.0	3.8	4.9	3.8	4.7			
Max Q Clear (g_c+I1), s		7.7	14.4	6.0	9.5	3.4	18.9	18.3	19.5			
Green Ext Time (g_e), s		0.0	2.2	0.0	3.2	0.0	2.1	0.0	0.0			
Prob of Phs Call (p_c)		1.00	1.00	0.93	1.00	0.74	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.03	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		3456		1781		3456		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Prot)		L (Pr/Pm)		L (Prot)		L (Pr/Pm)				

HCM 6th Signalized Intersection Capacity Analysis

6: Tapo Canyon Rd & Cochran St

06/08/2020

Lanes in Grp	2	0	1	0	2	0	1	0
Grp Vol (v), veh/h	249	0	117	0	61	0	487	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	1781	0
Q Serve Time (g_s), s	5.7	0.0	4.0	0.0	1.4	0.0	16.3	0.0
Cycle Q Clear Time (g_c), s	5.7	0.0	4.0	0.0	1.4	0.0	16.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	859	0	0	0	671	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	18.0	0.0	0.0	0.0	20.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	18.0	0.0	0.0	0.0	8.7	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	8.7	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	298	0	407	0	160	0	535	0
V/C Ratio (X)	0.84	0.00	0.29	0.00	0.38	0.00	0.91	0.00
Avail Cap (c_a), veh/h	298	0	428	0	216	0	535	0
Upstream Filter (I)	1.00	0.00	0.81	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	36.0	0.0	21.3	0.0	37.0	0.0	18.0	0.0
Incr Delay (d2), s/veh	18.2	0.0	0.3	0.0	1.5	0.0	19.9	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	54.2	0.0	21.6	0.0	38.5	0.0	37.8	0.0
1st-Term Q (Q1), veh/ln	2.3	0.0	1.6	0.0	0.6	0.0	6.1	0.0
2nd-Term Q (Q2), veh/ln	0.8	0.0	0.0	0.0	0.0	0.0	2.9	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	3.1	0.0	1.6	0.0	0.6	0.0	9.0	0.0
%ile Storage Ratio (RQ%)	0.78	0.00	0.14	0.00	0.10	0.00	0.77	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	2	0	2
Grp Vol (v), veh/h	0	611	0	458	0	820	0	465
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	12.4	0.0	7.5	0.0	16.9	0.0	9.3
Cycle Q Clear Time (g_c), s	0.0	12.4	0.0	7.5	0.0	16.9	0.0	9.3
Lane Grp Cap (c), veh/h	0	906	0	1295	0	1048	0	800
V/C Ratio (X)	0.00	0.67	0.00	0.35	0.00	0.78	0.00	0.58
Avail Cap (c_a), veh/h	0	906	0	1295	0	1048	0	800
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.81
Uniform Delay (d1), s/veh	0.0	26.8	0.0	18.5	0.0	25.9	0.0	27.6
Incr Delay (d2), s/veh	0.0	4.0	0.0	0.2	0.0	5.8	0.0	0.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	30.8	0.0	18.7	0.0	31.7	0.0	28.5
1st-Term Q (Q1), veh/ln	0.0	5.0	0.0	3.0	0.0	6.8	0.0	3.8
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.8	0.0	0.1

HCM 6th Signalized Intersection Capacity Analysis

6: Tapo Canyon Rd & Cochran St

06/08/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.5	0.0	3.0	0.0	7.7	0.0	3.9
%ile Storage Ratio (RQ%)	0.00	0.35	0.00	0.11	0.00	0.91	0.00	0.10
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	73	0	90	0	379	0	349
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	2.9	0.0	3.1	0.0	12.5	0.0	17.5
Cycle Q Clear Time (g_c), s	0.0	2.9	0.0	3.1	0.0	12.5	0.0	17.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	404	0	578	0	798	0	357
V/C Ratio (X)	0.00	0.18	0.00	0.16	0.00	0.47	0.00	0.98
Avail Cap (c_a), veh/h	0	404	0	578	0	798	0	357
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.81
Uniform Delay (d1), s/veh	0.0	23.3	0.0	17.1	0.0	13.0	0.0	30.8
Incr Delay (d2), s/veh	0.0	1.0	0.0	0.1	0.0	2.0	0.0	37.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	24.3	0.0	17.2	0.0	15.0	0.0	68.0
1st-Term Q (Q1), veh/ln	0.0	1.0	0.0	1.1	0.0	4.1	0.0	6.4
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.4	0.0	3.7
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.2	0.0	1.1	0.0	4.5	0.0	10.1
%ile Storage Ratio (RQ%)	0.00	0.18	0.00	0.40	0.00	0.57	0.00	0.25
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	32.7
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
7: Tapo St & Cochran St

06/08/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↶↷		↶	↶↷		↶	↶↷		↶	↶↷	
Traffic Volume (veh/h)	196	328	115	144	294	122	83	241	72	175	346	155
Future Volume (veh/h)	196	328	115	144	294	122	83	241	72	175	346	155
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	233	390	137	171	350	145	99	287	86	208	412	185
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	315	525	182	300	481	196	429	992	291	540	907	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.08	0.20	0.20	0.08	0.20	0.20	0.06	0.37	0.37	0.08	0.38	0.38
Unsig. Movement Delay												
Ln Grp Delay, s/veh	30.0	27.4	28.0	22.4	27.6	28.4	12.0	15.7	15.8	12.1	17.3	17.5
Ln Grp LOS	C	C	C	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		760			666			472			805	
Approach Delay, s/veh		28.4			26.5			15.0			16.1	
Approach LOS		C			C			B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		9.5	28.3	9.5	17.7	8.7	29.1	10.0	17.2			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		5.0	18.5	5.0	18.5	5.0	18.5	5.5	18.0			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	5.3	3.8	5.3			
Max Q Clear (g_c+I1), s		6.8	7.0	7.0	11.3	4.2	10.5	7.5	10.8			
Green Ext Time (g_e), s		0.0	1.7	0.0	1.9	0.0	2.3	0.0	1.7			
Prob of Phs Call (p_c)		0.98	1.00	0.95	1.00	0.83	1.00	0.99	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.65	1.00	0.00	1.00	0.63			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			2708		2588		2393		2463			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			796		898		1063		1003			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)				

HCM 6th Signalized Intersection Capacity Analysis

7: Tapo St & Cochran St

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	208	0	171	0	99	0	233	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	4.8	0.0	5.0	0.0	2.2	0.0	5.5	0.0
Cycle Q Clear Time (g_c), s	4.8	0.0	5.0	0.0	2.2	0.0	5.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	1009	0	876	0	821	0	902	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	23.8	0.0	12.7	0.0	23.8	0.0	12.7	0.0
Perm LT Serve Time (g_u), s	18.8	0.0	3.9	0.0	16.1	0.0	3.9	0.0
Perm LT Q Serve Time (g_ps), s	1.3	0.0	2.2	0.0	1.1	0.0	3.9	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	540	0	300	0	429	0	315	0
V/C Ratio (X)	0.39	0.00	0.57	0.00	0.23	0.00	0.74	0.00
Avail Cap (c_a), veh/h	540	0	300	0	452	0	315	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.88	0.00
Uniform Delay (d1), s/veh	11.7	0.0	19.8	0.0	11.7	0.0	22.1	0.0
Incr Delay (d2), s/veh	0.5	0.0	2.6	0.0	0.3	0.0	7.9	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	12.1	0.0	22.4	0.0	12.0	0.0	30.0	0.0
1st-Term Q (Q1), veh/ln	1.7	0.0	1.9	0.0	0.8	0.0	2.7	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.2	0.0	0.0	0.0	0.7	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	1.7	0.0	2.1	0.0	0.8	0.0	3.4	0.0
%ile Storage Ratio (RQ%)	0.37	0.00	0.45	0.00	0.15	0.00	0.72	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	186	0	266	0	305	0	251
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	4.8	0.0	9.1	0.0	8.4	0.0	8.6
Cycle Q Clear Time (g_c), s	0.0	4.8	0.0	9.1	0.0	8.4	0.0	8.6
Lane Grp Cap (c), veh/h	0	651	0	361	0	674	0	347
V/C Ratio (X)	0.00	0.29	0.00	0.74	0.00	0.45	0.00	0.72
Avail Cap (c_a), veh/h	0	651	0	506	0	674	0	492
Upstream Filter (I)	0.00	1.00	0.00	0.88	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.6	0.0	24.3	0.0	15.1	0.0	24.5
Incr Delay (d2), s/veh	0.0	1.1	0.0	3.1	0.0	2.2	0.0	3.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.7	0.0	27.4	0.0	17.3	0.0	27.6
1st-Term Q (Q1), veh/ln	0.0	1.8	0.0	3.6	0.0	3.1	0.0	3.4
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.3	0.0	0.4	0.0	0.3

HCM 6th Signalized Intersection Capacity Analysis

7: Tapo St & Cochran St

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.0	0.0	3.9	0.0	3.5	0.0	3.7
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.10	0.00	0.27	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	187	0	261	0	292	0	244
Grp Sat Flow (s), veh/h/ln	0	1727	0	1709	0	1679	0	1690
Q Serve Time (g_s), s	0.0	5.0	0.0	9.3	0.0	8.5	0.0	8.8
Cycle Q Clear Time (g_c), s	0.0	5.0	0.0	9.3	0.0	8.5	0.0	8.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.46	0.00	0.53	0.00	0.63	0.00	0.59
Lane Grp Cap (c), veh/h	0	633	0	347	0	637	0	330
V/C Ratio (X)	0.00	0.30	0.00	0.75	0.00	0.46	0.00	0.74
Avail Cap (c_a), veh/h	0	633	0	486	0	637	0	468
Upstream Filter (I)	0.00	1.00	0.00	0.88	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.6	0.0	24.4	0.0	15.2	0.0	24.6
Incr Delay (d2), s/veh	0.0	1.2	0.0	3.7	0.0	2.4	0.0	3.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.8	0.0	28.0	0.0	17.5	0.0	28.4
1st-Term Q (Q1), veh/ln	0.0	1.8	0.0	3.5	0.0	2.9	0.0	3.3
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.4	0.0	0.4	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.0	0.0	3.9	0.0	3.4	0.0	3.7
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.10	0.00	0.26	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
8: Sequoia Ave & Cochran St

06/08/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	38	485	92	129	360	87	149	175	242	136	263	56	
Future Volume (veh/h)	38	485	92	129	360	87	149	175	242	136	263	56	
Number	7	4	14	3	8	18	5	2	12	1	6	16	
Initial Q, 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		
Lanes Open During Work Zone													
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	54	693	131	184	514	124	213	250	346	194	376	80	
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Opposing Right Turn Influence	Yes			Yes			Yes			Yes			
Cap, veh/h	287	798	151	277	910	218	465	1736	774	450	1427	301	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Prop Arrive On Green	0.04	0.27	0.27	0.09	0.32	0.32	0.49	0.49	0.49	0.49	0.49	0.49	
Unsig. Movement Delay													
Ln Grp Delay, s/veh	23.0	45.0	45.2	26.1	26.2	26.3	22.8	12.8	16.6	20.8	14.2	14.3	
Ln Grp LOS	C	D	D	C	C	C	C	B	B	C	B	B	
Approach Vol, veh/h		878			822			809			650		
Approach Delay, s/veh		43.7			26.2			17.1			16.2		
Approach LOS		D			C			B			B		
Timer:		1	2	3	4	5	6	7	8				
Assigned Phs			2	3	4		6	7	8				
Case No			5.0	1.1	4.0		6.0	1.1	4.0				
Phs Duration (G+Y+Rc), s			48.5	12.9	28.6		48.5	8.2	33.3				
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5				
Max Green (Gmax), s			38.5	11.5	26.5		38.5	5.3	32.7				
Max Allow Headway (MAH), s			4.7	3.8	5.3		5.4	3.8	5.3				
Max Q Clear (g_c+I1), s			24.5	8.4	22.0		20.8	3.9	15.6				
Green Ext Time (g_e), s			3.5	0.1	2.1		3.8	0.0	3.7				
Prob of Phs Call (p_c)			1.00	0.99	1.00		1.00	0.74	1.00				
Prob of Max Out (p_x)			0.00	1.00	1.00		0.00	1.00	0.10				
Left-Turn Movement Data													
Assigned Mvmt			5	3			1	7					
Mvmt Sat Flow, veh/h			935	1781			822	1781					
Through Movement Data													
Assigned Mvmt			2		4		6		8				
Mvmt Sat Flow, veh/h			3554		2982		2921		2842				
Right-Turn Movement Data													
Assigned Mvmt			12		14		16		18				
Mvmt Sat Flow, veh/h			1585		563		615		682				
Left Lane Group Data													
Assigned Mvmt		0	5	3	0	0	1	7	0				
Lane Assignment			LL (Pr/Pm)					LL (Pr/Pm)					

HCM 6th Signalized Intersection Capacity Analysis

8: Sequoia Ave & Cochran St

06/08/2020

Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	213	184	0	0	194	54	0
Grp Sat Flow (s), veh/h/ln	0	935	1781	0	0	822	1781	0
Q Serve Time (g_s), s	0.0	15.6	6.4	0.0	0.0	15.3	1.9	0.0
Cycle Q Clear Time (g_c), s	0.0	22.5	6.4	0.0	0.0	18.8	1.9	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	935	665	0	0	822	790	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	44.0	26.1	0.0	0.0	44.0	24.1	0.0
Perm LT Serve Time (g_u), s	0.0	37.1	4.1	0.0	0.0	40.5	15.2	0.0
Perm LT Q Serve Time (g_ps), s	0.0	15.6	4.1	0.0	0.0	15.3	0.6	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	465	277	0	0	450	287	0
V/C Ratio (X)	0.00	0.46	0.66	0.00	0.00	0.43	0.19	0.00
Avail Cap (c_a), veh/h	0	465	338	0	0	450	319	0
Upstream Filter (I)	0.00	0.83	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	20.1	22.5	0.0	0.0	17.8	22.6	0.0
Incr Delay (d2), s/veh	0.0	2.7	3.6	0.0	0.0	3.0	0.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.8	26.1	0.0	0.0	20.8	23.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.3	2.6	0.0	0.0	2.8	0.8	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.3	0.0	0.0	0.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.6	2.8	0.0	0.0	3.1	0.8	0.0
%ile Storage Ratio (RQ%)	0.00	0.61	0.48	0.00	0.00	0.50	0.14	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	250	0	413	0	227	0	320
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	3.5	0.0	19.9	0.0	6.7	0.0	13.5
Cycle Q Clear Time (g_c), s	0.0	3.5	0.0	19.9	0.0	6.7	0.0	13.5
Lane Grp Cap (c), veh/h	0	1736	0	475	0	868	0	569
V/C Ratio (X)	0.00	0.14	0.00	0.87	0.00	0.26	0.00	0.56
Avail Cap (c_a), veh/h	0	1736	0	523	0	868	0	646
Upstream Filter (I)	0.00	0.83	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	12.7	0.0	31.4	0.0	13.5	0.0	25.4
Incr Delay (d2), s/veh	0.0	0.1	0.0	13.6	0.0	0.7	0.0	0.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	12.8	0.0	45.0	0.0	14.2	0.0	26.2
1st-Term Q (Q1), veh/ln	0.0	1.3	0.0	8.3	0.0	2.6	0.0	5.5
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	1.8	0.0	0.2	0.0	0.1

HCM 6th Signalized Intersection Capacity Analysis

8: Sequoia Ave & Cochran St

06/08/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.4	0.0	10.1	0.0	2.8	0.0	5.6
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.29	0.00	0.34	0.00	0.13
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	346	0	411	0	229	0	318
Grp Sat Flow (s), veh/h/ln	0	1585	0	1769	0	1760	0	1748
Q Serve Time (g_s), s	0.0	12.9	0.0	20.0	0.0	6.9	0.0	13.6
Cycle Q Clear Time (g_c), s	0.0	12.9	0.0	20.0	0.0	6.9	0.0	13.6
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.32	0.00	0.35	0.00	0.39
Lane Grp Cap (c), veh/h	0	774	0	473	0	860	0	560
V/C Ratio (X)	0.00	0.45	0.00	0.87	0.00	0.27	0.00	0.57
Avail Cap (c_a), veh/h	0	774	0	521	0	860	0	635
Upstream Filter (I)	0.00	0.83	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.1	0.0	31.5	0.0	13.5	0.0	25.4
Incr Delay (d2), s/veh	0.0	1.5	0.0	13.7	0.0	0.8	0.0	0.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.6	0.0	45.2	0.0	14.3	0.0	26.3
1st-Term Q (Q1), veh/ln	0.0	4.4	0.0	8.3	0.0	2.6	0.0	5.5
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	1.8	0.0	0.2	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.7	0.0	10.1	0.0	2.8	0.0	5.6
%ile Storage Ratio (RQ%)	0.00	0.80	0.00	0.29	0.00	0.35	0.00	0.13
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

06/08/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	774	7	175	655	150	30	418	381	152	203	198
Future Volume (veh/h)	260	774	7	175	655	150	30	418	381	152	203	198
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	274	815	7	184	689	158	32	440	348	160	214	208
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	275	961	8	216	829	483	431	1008	450	356	1145	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.15	0.27	0.27	0.12	0.23	0.23	0.03	0.28	0.28	0.07	0.32	0.32
Unsig. Movement Delay												
Ln Grp Delay, s/veh	83.0	36.1	35.6	49.8	29.8	19.1	16.7	21.9	35.2	17.2	17.5	20.9
Ln Grp LOS	F	D	D	D	C	B	B	C	D	B	B	C
Approach Vol, veh/h		1096			1031			820			582	
Approach Delay, s/veh		47.7			31.8			27.3			18.6	
Approach LOS		D			C			C			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	3.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		9.5	24.4	13.0	23.1	6.8	27.0	15.3	20.8			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		5.0	18.2	8.5	20.3	5.0	18.2	10.8	18.0			
Max Allow Headway (MAH), s		3.7	4.5	3.7	4.9	3.7	4.4	3.7	4.7			
Max Q Clear (g_c+I1), s		6.4	16.1	9.1	17.0	2.9	9.2	12.8	14.9			
Green Ext Time (g_e), s		0.0	0.9	0.0	1.5	0.0	1.3	0.0	1.4			
Prob of Phs Call (p_c)		0.96	1.00	0.97	1.00	0.46	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3611		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		31		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	160	0	184	0	32	0	274	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	4.4	0.0	7.1	0.0	0.9	0.0	10.8	0.0
Cycle Q Clear Time (g_c), s	4.4	0.0	7.1	0.0	0.9	0.0	10.8	0.0
Perm LT Sat Flow (s_l), veh/h/ln	687	0	0	0	965	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	20.0	0.0	0.0	0.0	19.9	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	12.8	0.0	0.0	0.0	19.5	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	356	0	216	0	431	0	275	0
V/C Ratio (X)	0.45	0.00	0.85	0.00	0.07	0.00	1.00	0.00
Avail Cap (c_a), veh/h	356	0	216	0	499	0	275	0
Upstream Filter (I)	1.00	0.00	0.70	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	16.4	0.0	30.1	0.0	16.6	0.0	29.6	0.0
Incr Delay (d2), s/veh	0.9	0.0	19.7	0.0	0.1	0.0	53.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	17.2	0.0	49.8	0.0	16.7	0.0	83.0	0.0
1st-Term Q (Q1), veh/ln	1.6	0.0	2.8	0.0	0.3	0.0	4.2	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	1.2	0.0	0.0	0.0	4.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	1.6	0.0	4.0	0.0	0.3	0.0	8.2	0.0
%ile Storage Ratio (RQ%)	0.12	0.00	0.37	0.00	0.03	0.00	0.72	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	440	0	401	0	214	0	689
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	7.1	0.0	15.0	0.0	3.0	0.0	12.9
Cycle Q Clear Time (g_c), s	0.0	7.1	0.0	15.0	0.0	3.0	0.0	12.9
Lane Grp Cap (c), veh/h	0	1008	0	473	0	1145	0	829
V/C Ratio (X)	0.00	0.44	0.00	0.85	0.00	0.19	0.00	0.83
Avail Cap (c_a), veh/h	0	1008	0	515	0	1145	0	914
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.70
Uniform Delay (d1), s/veh	0.0	20.5	0.0	24.3	0.0	17.1	0.0	25.5
Incr Delay (d2), s/veh	0.0	1.4	0.0	11.8	0.0	0.4	0.0	4.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	21.9	0.0	36.1	0.0	17.5	0.0	29.8
1st-Term Q (Q1), veh/ln	0.0	2.6	0.0	5.5	0.0	1.1	0.0	4.9
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	1.5	0.0	0.1	0.0	0.5

HCM 6th Signalized Intersection Capacity Analysis

1: Tapo Canyon Rd & E Los Angeles Ave

06/08/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.8	0.0	7.1	0.0	1.2	0.0	5.4
%ile Storage Ratio (RQ%)	0.00	0.27	0.00	0.23	0.00	0.39	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	348	0	421	0	208	0	158
Grp Sat Flow (s), veh/h/ln	0	1585	0	1865	0	1585	0	1585
Q Serve Time (g_s), s	0.0	14.1	0.0	15.0	0.0	7.2	0.0	5.4
Cycle Q Clear Time (g_c), s	0.0	14.1	0.0	15.0	0.0	7.2	0.0	5.4
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.02	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	450	0	497	0	511	0	483
V/C Ratio (X)	0.00	0.77	0.00	0.85	0.00	0.41	0.00	0.33
Avail Cap (c_a), veh/h	0	450	0	541	0	511	0	521
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.70
Uniform Delay (d1), s/veh	0.0	23.0	0.0	24.3	0.0	18.5	0.0	18.8
Incr Delay (d2), s/veh	0.0	12.2	0.0	11.3	0.0	2.4	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	35.2	0.0	35.6	0.0	20.9	0.0	19.1
1st-Term Q (Q1), veh/ln	0.0	4.6	0.0	5.8	0.0	2.3	0.0	1.7
2nd-Term Q (Q2), veh/ln	0.0	1.5	0.0	1.6	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.2	0.0	7.4	0.0	2.6	0.0	1.8
%ile Storage Ratio (RQ%)	0.00	1.04	0.00	0.24	0.00	0.20	0.00	0.28
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	33.5
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

2: Tapo St & E Los Angeles Ave

06/08/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	374	876	44	35	584	202	58	77	75	185	43	318
Future Volume (veh/h)	374	876	44	35	584	202	58	77	75	185	43	318
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	402	942	47	38	628	217	62	83	81	199	46	342
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	511	1344	67	70	729	252	448	620	543	499	646	782
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.15	0.39	0.39	0.04	0.28	0.28	0.35	0.35	0.35	0.35	0.35	0.35
Unsig. Movement Delay												
Ln Grp Delay, s/veh	29.0	17.4	17.3	34.8	33.3	33.9	15.0	13.9	14.1	19.4	13.4	11.6
Ln Grp LOS	C	B	B	C	C	C	B	B	B	B	B	B
Approach Vol, veh/h		1391			883			226			587	
Approach Delay, s/veh		20.7			33.7			14.3			14.4	
Approach LOS		C			C			B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	2.0	4.0		5.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			25.2	6.8	27.9		25.2	13.4	21.4			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			18.8	5.1	22.6		18.8	9.7	18.0			
Max Allow Headway (MAH), s			5.1	3.7	4.9		4.1	3.7	5.0			
Max Q Clear (g_c+I1), s			5.7	3.3	15.8		12.2	8.7	15.8			
Green Ext Time (g_e), s			0.9	0.0	3.2		1.3	0.2	1.1			
Prob of Phs Call (p_c)			1.00	0.47	1.00		1.00	1.00	1.00			
Prob of Max Out (p_x)			0.00	1.00	0.78		0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			996	1781			1222	3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1794		3444		1870		2592			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1570		172		1585		895			
Left Lane Group Data												
Assigned Mvmt		0	5	3	0	0	1	7	0			
Lane Assignment			L	L (Prot)			L	L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis

2: Tapo St & E Los Angeles Ave

06/08/2020

Lanes in Grp	0	1	1	0	0	1	2	0
Grp Vol (v), veh/h	0	62	38	0	0	199	402	0
Grp Sat Flow (s), veh/h/ln	0	996	1781	0	0	1222	1728	0
Q Serve Time (g_s), s	0.0	2.7	1.3	0.0	0.0	8.1	6.7	0.0
Cycle Q Clear Time (g_c), s	0.0	3.7	1.3	0.0	0.0	10.2	6.7	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	996	0	0	0	1222	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	20.7	0.0	0.0	0.0	20.7	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	19.7	0.0	0.0	0.0	18.6	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	2.7	0.0	0.0	0.0	8.1	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	448	70	0	0	499	511	0
V/C Ratio (X)	0.00	0.14	0.55	0.00	0.00	0.40	0.79	0.00
Avail Cap (c_a), veh/h	0	448	151	0	0	499	559	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	1.00	0.63	0.00
Uniform Delay (d1), s/veh	0.0	14.4	28.3	0.0	0.0	17.1	24.6	0.0
Incr Delay (d2), s/veh	0.0	0.6	6.5	0.0	0.0	2.4	4.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.0	34.8	0.0	0.0	19.4	29.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.5	0.5	0.0	0.0	1.9	2.4	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.1	0.0	0.0	0.3	0.3	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.6	0.6	0.0	0.0	2.3	2.7	0.0
%ile Storage Ratio (RQ%)	0.00	0.23	0.11	0.00	0.00	0.58	0.27	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	82	0	486	0	46	0	430
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	1.9	0.0	13.8	0.0	1.0	0.0	13.8
Cycle Q Clear Time (g_c), s	0.0	1.9	0.0	13.8	0.0	1.0	0.0	13.8
Lane Grp Cap (c), veh/h	0	614	0	694	0	646	0	500
V/C Ratio (X)	0.00	0.13	0.00	0.70	0.00	0.07	0.00	0.86
Avail Cap (c_a), veh/h	0	614	0	694	0	646	0	533
Upstream Filter (I)	0.00	1.00	0.00	0.63	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.5	0.0	15.3	0.0	13.2	0.0	20.4
Incr Delay (d2), s/veh	0.0	0.5	0.0	2.0	0.0	0.2	0.0	12.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.9	0.0	17.4	0.0	13.4	0.0	33.3
1st-Term Q (Q1), veh/ln	0.0	0.7	0.0	4.4	0.0	0.4	0.0	4.8
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.4	0.0	0.0	0.0	1.8

HCM 6th Signalized Intersection Capacity Analysis 2: Tapo St & E Los Angeles Ave

06/08/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.7	0.0	4.8	0.0	0.4	0.0	6.6
%ile Storage Ratio (RQ%)	0.00	0.08	0.00	0.12	0.00	0.10	0.00	0.42
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	82	0	503	0	342	0	415
Grp Sat Flow (s), veh/h/ln	0	1588	0	1839	0	1585	0	1709
Q Serve Time (g_s), s	0.0	2.1	0.0	13.8	0.0	8.4	0.0	13.8
Cycle Q Clear Time (g_c), s	0.0	2.1	0.0	13.8	0.0	8.4	0.0	13.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	8.9	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.99	0.00	0.09	0.00	1.00	0.00	0.52
Lane Grp Cap (c), veh/h	0	549	0	718	0	782	0	481
V/C Ratio (X)	0.00	0.15	0.00	0.70	0.00	0.44	0.00	0.86
Avail Cap (c_a), veh/h	0	549	0	718	0	782	0	513
Upstream Filter (I)	0.00	1.00	0.00	0.63	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.5	0.0	15.3	0.0	9.8	0.0	20.5
Incr Delay (d2), s/veh	0.0	0.6	0.0	1.9	0.0	1.8	0.0	13.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.1	0.0	17.3	0.0	11.6	0.0	33.9
1st-Term Q (Q1), veh/ln	0.0	0.7	0.0	4.6	0.0	2.1	0.0	4.6
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.4	0.0	0.4	0.0	1.8
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.7	0.0	4.9	0.0	2.5	0.0	6.4
%ile Storage Ratio (RQ%)	0.00	0.08	0.00	0.13	0.00	0.64	0.00	0.41
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

03/08/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (veh/h)	0	1176	0	0	803	0	0	0	0	0	0	0
Future Volume (veh/h)	0	1176	0	0	803	0	0	0	0	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	1265	0	0	863	0	0	0	0	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	1741	0	0	1741	0	0	617	0	0	617	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
Prop Arrive On Green	0.00	0.49	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	12.8	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ln Grp LOS	A	B	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		1265			863			0			0	
Approach Delay, s/veh		12.8			9.6			0.0			0.0	
Approach LOS		B			A							
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			29.0		21.0		29.0		21.0			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			24.5		16.5		24.5		16.5			
Max Allow Headway (MAH), s			4.9		0.0		4.9		0.0			
Max Q Clear (g_c+I1), s			16.1		0.0		10.2		0.0			
Green Ext Time (g_e), s			5.0		0.0		4.7		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3741		1870		3741		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

03/08/2021

Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	24.5	0.0	16.5	0.0	24.5	0.0	16.5
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	1265	0	0	0	863	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	14.1	0.0	0.0	0.0	8.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	14.1	0.0	0.0	0.0	8.2	0.0	0.0
Lane Grp Cap (c), veh/h	0	1741	0	617	0	1741	0	617
V/C Ratio (X)	0.00	0.73	0.00	0.00	0.00	0.50	0.00	0.00
Avail Cap (c_a), veh/h	0	1741	0	617	0	1741	0	617
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.1	0.0	0.0	0.0	8.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.7	0.0	0.0	0.0	1.0	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
Control Delay (d), s/veh	0.0	12.8	0.0	0.0	0.0	9.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.5	0.0	0.0	0.0	2.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	0.0	0.0	0.2	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.1	0.0	0.0	0.0	2.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.07	0.00	0.00	0.00	0.45	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	11.5
HCM 6th LOS	B

Notes

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

HCM 6th Signalized Intersection Capacity Analysis

4: Hlidden Ranch Dr

03/08/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	111	0	0	167	0
Future Volume (veh/h)	0	0	0	0	0	0	0	111	0	0	167	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	118	0	0	178	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	748	0	0	748	0	0	748	0	0	748	0
HCM Platoon Ratio	1.00	0.66	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.40	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0	9.7	0.0
Ln Grp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			0			118			178	
Approach Delay, s/veh		0.0			0.0			9.1			9.7	
Approach LOS								A			A	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			22.5		22.5		22.5		22.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			18.0		18.0		18.0		18.0			
Max Allow Headway (MAH), s			5.1		0.0		5.1		0.0			
Max Q Clear (g_c+I1), s			3.8		0.0		4.8		0.0			
Green Ext Time (g_e), s			0.4		0.0		0.7		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1870		1870		1870		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis

4: Hidden Ranch Dr

03/08/2021

Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	18.0	0.0	18.0	0.0	18.0	0.0	18.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	118	0	0	0	178	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	1870	0	1870	0	1870
Q Serve Time (g_s), s	0.0	1.8	0.0	0.0	0.0	2.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	1.8	0.0	0.0	0.0	2.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	748	0	748	0	748	0	748
V/C Ratio (X)	0.00	0.16	0.00	0.00	0.00	0.24	0.00	0.00
Avail Cap (c_a), veh/h	0	748	0	748	0	748	0	748
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.6	0.0	0.0	0.0	9.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.0	0.0	0.7	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
Control Delay (d), s/veh	0.0	9.1	0.0	0.0	0.0	9.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	0.0	0.0	0.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

4: Hidden Ranch Dr

03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.6	0.0	0.0	0.0	1.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.51	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	9.5
HCM 6th LOS	A

Notes

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

HCM 6th Signalized Intersection Capacity Analysis

5:

06/08/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	264	835	86	115	635	142	47	287	53	86	251	151	
Future Volume (veh/h)	264	835	86	115	635	142	47	287	53	86	251	151	
Number	7	4	14	3	8	18	5	2	12	1	6	16	
Initial Q, 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		
Lanes Open During Work Zone													
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	281	888	91	122	676	151	50	305	56	91	267	161	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Opposing Right Turn Influence	Yes			Yes			Yes			Yes			
Cap, veh/h	404	1221	545	321	801	179	352	1078	196	411	775	453	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	
Prop Arrive On Green	0.14	0.34	0.34	0.07	0.28	0.28	0.36	0.36	0.36	0.12	0.12	0.12	
Unsig. Movement Delay													
Ln Grp Delay, s/veh	17.9	19.1	13.9	15.2	31.6	31.8	19.1	14.8	14.9	24.3	21.3	21.7	
Ln Grp LOS	B	B	B	B	C	C	B	B	B	C	C	C	
Approach Vol, veh/h		1260			949			411			519		
Approach Delay, s/veh		18.5			29.6			15.4			22.0		
Approach LOS		B			C			B			C		
Timer:		1	2	3	4	5	6	7	8				
Assigned Phs			2	3	4		6	7	8				
Case No			6.0	1.1	3.0		6.0	1.1	4.0				
Phs Duration (G+Y+Rc), s			26.0	8.8	25.1		26.0	12.8	21.1				
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5				
Max Green (Gmax), s			19.0	5.1	22.4		19.0	9.5	18.0				
Max Allow Headway (MAH), s			5.3	3.8	5.1		5.3	3.8	5.3				
Max Q Clear (g_c+I1), s			11.6	4.9	15.1		11.4	8.3	15.3				
Green Ext Time (g_e), s			1.4	0.0	3.6		1.8	0.1	1.4				
Prob of Phs Call (p_c)			1.00	0.87	1.00		1.00	0.99	1.00				
Prob of Max Out (p_x)			0.00	1.00	0.76		0.00	1.00	1.00				
Left-Turn Movement Data													
Assigned Mvmt			5	3			1	7					
Mvmt Sat Flow, veh/h			960	1781			1021	1781					
Through Movement Data													
Assigned Mvmt			2		4		6		8				
Mvmt Sat Flow, veh/h			3004		3554		2159		2887				
Right-Turn Movement Data													
Assigned Mvmt			12		14		16		18				
Mvmt Sat Flow, veh/h			545		1585		1261		644				
Left Lane Group Data													
Assigned Mvmt		0	5	3	0	0	1	7	0				
Lane Assignment			LL (Pr/Pm)					LL (Pr/Pm)					

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Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	50	122	0	0	91	281	0
Grp Sat Flow (s), veh/h/ln	0	960	1781	0	0	1021	1781	0
Q Serve Time (g_s), s	0.0	2.5	2.9	0.0	0.0	5.0	6.3	0.0
Cycle Q Clear Time (g_c), s	0.0	9.6	2.9	0.0	0.0	9.4	6.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	960	575	0	0	1021	663	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	21.5	16.6	0.0	0.0	21.5	18.1	0.0
Perm LT Serve Time (g_u), s	0.0	14.5	7.5	0.0	0.0	17.1	3.4	0.0
Perm LT Q Serve Time (g_ps), s	0.0	2.5	2.5	0.0	0.0	5.0	3.4	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	352	321	0	0	411	404	0
V/C Ratio (X)	0.00	0.14	0.38	0.00	0.00	0.22	0.70	0.00
Avail Cap (c_a), veh/h	0	352	343	0	0	411	439	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.95	1.00	0.00
Uniform Delay (d1), s/veh	0.0	18.2	14.5	0.0	0.0	23.2	13.7	0.0
Incr Delay (d2), s/veh	0.0	0.8	0.7	0.0	0.0	1.2	4.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.1	15.2	0.0	0.0	24.3	17.9	0.0
1st-Term Q (Q1), veh/ln	0.0	0.5	1.0	0.0	0.0	1.3	2.1	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.1	0.0	0.0	0.1	0.5	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.6	1.1	0.0	0.0	1.4	2.6	0.0
%ile Storage Ratio (RQ%)	0.00	0.15	0.19	0.00	0.00	0.24	0.39	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	1
Grp Vol (v), veh/h	0	179	0	888	0	218	0	416
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	4.3	0.0	13.1	0.0	6.8	0.0	13.2
Cycle Q Clear Time (g_c), s	0.0	4.3	0.0	13.1	0.0	6.8	0.0	13.2
Lane Grp Cap (c), veh/h	0	638	0	1221	0	638	0	493
V/C Ratio (X)	0.00	0.28	0.00	0.73	0.00	0.34	0.00	0.84
Avail Cap (c_a), veh/h	0	638	0	1327	0	638	0	533
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.95	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.7	0.0	17.2	0.0	19.9	0.0	20.5
Incr Delay (d2), s/veh	0.0	1.1	0.0	1.9	0.0	1.4	0.0	11.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.8	0.0	19.1	0.0	21.3	0.0	31.6
1st-Term Q (Q1), veh/ln	0.0	1.5	0.0	4.8	0.0	2.8	0.0	5.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.3	0.0	0.2	0.0	1.5

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.7	0.0	5.1	0.0	3.1	0.0	6.5
%ile Storage Ratio (RQ%)	0.00	0.10	0.00	0.21	0.00	0.05	0.00	0.16
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	182	0	91	0	210	0	411
Grp Sat Flow (s), veh/h/ln	0	1772	0	1585	0	1643	0	1754
Q Serve Time (g_s), s	0.0	4.4	0.0	2.4	0.0	7.0	0.0	13.3
Cycle Q Clear Time (g_c), s	0.0	4.4	0.0	2.4	0.0	7.0	0.0	13.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.31	0.00	1.00	0.00	0.77	0.00	0.37
Lane Grp Cap (c), veh/h	0	636	0	545	0	590	0	487
V/C Ratio (X)	0.00	0.29	0.00	0.17	0.00	0.36	0.00	0.84
Avail Cap (c_a), veh/h	0	636	0	592	0	590	0	526
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.95	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.7	0.0	13.7	0.0	20.1	0.0	20.5
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.1	0.0	1.6	0.0	11.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.9	0.0	13.9	0.0	21.7	0.0	31.8
1st-Term Q (Q1), veh/ln	0.0	1.6	0.0	0.8	0.0	2.7	0.0	4.9
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.3	0.0	1.5
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.8	0.0	0.8	0.0	3.0	0.0	6.5
%ile Storage Ratio (RQ%)	0.00	0.10	0.00	0.14	0.00	0.05	0.00	0.16
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	22.0
HCM 6th LOS	C

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	354	592	47	100	419	363	75	748	100	318	546	414
Future Volume (veh/h)	354	592	47	100	419	363	75	748	100	318	546	414
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	369	617	49	104	436	274	78	779	104	331	569	431
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	437	1056	471	318	727	324	178	1051	469	409	1289	575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.16	0.30	0.30	0.06	0.20	0.20	0.05	0.30	0.30	0.12	0.36	0.36
Unsig. Movement Delay												
Ln Grp Delay, s/veh	34.7	24.7	20.5	23.4	29.8	44.3	38.5	30.1	22.3	45.9	20.4	31.0
Ln Grp LOS	C	C	C	C	C	D	D	C	C	D	C	C
Approach Vol, veh/h		1035			814			961			1331	
Approach Delay, s/veh		28.1			33.8			29.9			30.2	
Approach LOS		C			C			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		2.0	3.0	1.1	3.0	2.0	3.0	1.1	3.0			
Phs Duration (G+Y+Rc), s		14.0	28.2	9.6	28.3	8.6	33.5	17.0	20.9			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		9.5	22.0	6.5	24.0	5.1	26.4	12.5	18.0			
Max Allow Headway (MAH), s		3.8	5.1	3.8	5.2	3.8	4.7	3.8	4.8			
Max Q Clear (g_c+I1), s		9.5	17.8	5.6	13.8	3.8	21.0	14.5	15.3			
Green Ext Time (g_e), s		0.0	2.1	0.0	3.1	0.0	2.6	0.0	1.1			
Prob of Phs Call (p_c)		1.00	1.00	0.90	1.00	0.82	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.35	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		3456		1781		3456		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Prot)		L (Pr/Pm)		L (Prot)		L (Pr/Pm)				

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Lanes in Grp	2	0	1	0	2	0	1	0
Grp Vol (v), veh/h	331	0	104	0	78	0	369	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	1781	0
Q Serve Time (g_s), s	7.5	0.0	3.6	0.0	1.8	0.0	12.5	0.0
Cycle Q Clear Time (g_c), s	7.5	0.0	3.6	0.0	1.8	0.0	12.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	770	0	0	0	739	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	16.4	0.0	0.0	0.0	18.4	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	12.0	0.0	0.0	0.0	7.5	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.7	0.0	0.0	0.0	7.5	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	409	0	318	0	178	0	437	0
V/C Ratio (X)	0.81	0.00	0.33	0.00	0.44	0.00	0.84	0.00
Avail Cap (c_a), veh/h	410	0	350	0	220	0	437	0
Upstream Filter (I)	1.00	0.00	0.85	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	34.4	0.0	22.9	0.0	36.8	0.0	20.7	0.0
Incr Delay (d2), s/veh	11.5	0.0	0.5	0.0	1.7	0.0	14.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	45.9	0.0	23.4	0.0	38.5	0.0	34.7	0.0
1st-Term Q (Q1), veh/ln	3.1	0.0	1.5	0.0	0.7	0.0	5.0	0.0
2nd-Term Q (Q2), veh/ln	0.7	0.0	0.0	0.0	0.0	0.0	1.7	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	3.7	0.0	1.5	0.0	0.8	0.0	6.7	0.0
%ile Storage Ratio (RQ%)	0.94	0.00	0.13	0.00	0.12	0.00	0.57	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	2	0	2
Grp Vol (v), veh/h	0	779	0	617	0	569	0	436
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	15.8	0.0	11.8	0.0	9.7	0.0	8.9
Cycle Q Clear Time (g_c), s	0.0	15.8	0.0	11.8	0.0	9.7	0.0	8.9
Lane Grp Cap (c), veh/h	0	1051	0	1056	0	1289	0	727
V/C Ratio (X)	0.00	0.74	0.00	0.58	0.00	0.44	0.00	0.60
Avail Cap (c_a), veh/h	0	1051	0	1066	0	1289	0	800
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.85
Uniform Delay (d1), s/veh	0.0	25.4	0.0	23.9	0.0	19.3	0.0	28.9
Incr Delay (d2), s/veh	0.0	4.7	0.0	0.8	0.0	1.1	0.0	0.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	30.1	0.0	24.7	0.0	20.4	0.0	29.8
1st-Term Q (Q1), veh/ln	0.0	6.4	0.0	4.8	0.0	3.8	0.0	3.7
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.1	0.0	0.2	0.0	0.1

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	7.1	0.0	4.9	0.0	4.0	0.0	3.8
%ile Storage Ratio (RQ%)	0.00	0.21	0.00	0.35	0.00	0.46	0.00	0.09
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	104	0	49	0	431	0	274
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	4.0	0.0	1.8	0.0	19.0	0.0	13.3
Cycle Q Clear Time (g_c), s	0.0	4.0	0.0	1.8	0.0	19.0	0.0	13.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	469	0	471	0	575	0	324
V/C Ratio (X)	0.00	0.22	0.00	0.10	0.00	0.75	0.00	0.85
Avail Cap (c_a), veh/h	0	469	0	476	0	575	0	357
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.85
Uniform Delay (d1), s/veh	0.0	21.2	0.0	20.4	0.0	22.3	0.0	30.6
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.1	0.0	8.7	0.0	13.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.3	0.0	20.5	0.0	31.0	0.0	44.3
1st-Term Q (Q1), veh/ln	0.0	1.4	0.0	0.6	0.0	6.7	0.0	4.9
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	1.4	0.0	1.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.6	0.0	0.7	0.0	8.1	0.0	6.1
%ile Storage Ratio (RQ%)	0.00	0.25	0.00	0.24	0.00	1.02	0.00	0.15
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷		↶	↷		↶	↷	
Traffic Volume (veh/h)	178	442	171	125	314	85	212	394	152	97	318	121
Future Volume (veh/h)	178	442	171	125	314	85	212	394	152	97	318	121
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	189	470	182	133	334	90	226	419	162	103	338	129
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	371	587	226	292	650	173	467	872	334	405	828	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
Prop Arrive On Green	0.08	0.23	0.23	0.08	0.23	0.23	0.08	0.35	0.35	0.06	0.33	0.33
Unsig. Movement Delay												
Ln Grp Delay, s/veh	19.0	29.5	30.2	19.0	22.6	22.7	14.2	19.3	19.5	13.5	19.0	19.3
Ln Grp LOS	B	C	C	B	C	C	B	B	B	B	B	B
Approach Vol, veh/h		841			557			807			570	
Approach Delay, s/veh		27.4			21.8			17.9			18.2	
Approach LOS		C			C			B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		8.7	27.1	9.5	19.7	10.0	25.8	9.5	19.7			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		5.0	19.0	5.0	18.0	5.5	18.5	5.0	18.0			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	5.3	3.8	5.3			
Max Q Clear (g_c+I1), s		4.4	10.6	5.6	13.6	7.5	8.9	7.0	8.9			
Green Ext Time (g_e), s		0.0	2.3	0.0	1.6	0.0	2.0	0.0	1.7			
Prob of Phs Call (p_c)		0.84	1.00	0.91	1.00	0.98	1.00	0.97	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.33			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			2513		2509		2528		2777			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			961		965		948		737			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)				

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	103	0	133	0	226	0	189	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	2.4	0.0	3.6	0.0	5.5	0.0	5.0	0.0
Cycle Q Clear Time (g_c), s	2.4	0.0	3.6	0.0	5.5	0.0	5.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	833	0	780	0	926	0	963	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	21.3	0.0	15.2	0.0	21.3	0.0	15.2	0.0
Perm LT Serve Time (g_u), s	14.0	0.0	3.6	0.0	14.4	0.0	8.3	0.0
Perm LT Q Serve Time (g_ps), s	1.0	0.0	2.4	0.0	2.3	0.0	2.3	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	405	0	292	0	467	0	371	0
V/C Ratio (X)	0.25	0.00	0.46	0.00	0.48	0.00	0.51	0.00
Avail Cap (c_a), veh/h	427	0	292	0	467	0	371	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.77	0.00
Uniform Delay (d1), s/veh	13.2	0.0	17.9	0.0	13.4	0.0	18.1	0.0
Incr Delay (d2), s/veh	0.3	0.0	1.1	0.0	0.8	0.0	0.9	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	13.5	0.0	19.0	0.0	14.2	0.0	19.0	0.0
1st-Term Q (Q1), veh/ln	0.9	0.0	1.4	0.0	2.0	0.0	2.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.9	0.0	1.5	0.0	2.1	0.0	2.1	0.0
%ile Storage Ratio (RQ%)	0.19	0.00	0.31	0.00	0.38	0.00	0.44	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	295	0	332	0	236	0	212
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	8.4	0.0	11.4	0.0	6.7	0.0	6.7
Cycle Q Clear Time (g_c), s	0.0	8.4	0.0	11.4	0.0	6.7	0.0	6.7
Lane Grp Cap (c), veh/h	0	617	0	416	0	582	0	416
V/C Ratio (X)	0.00	0.48	0.00	0.80	0.00	0.41	0.00	0.51
Avail Cap (c_a), veh/h	0	617	0	492	0	582	0	492
Upstream Filter (I)	0.00	1.00	0.00	0.77	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.6	0.0	23.4	0.0	17.0	0.0	21.6
Incr Delay (d2), s/veh	0.0	2.6	0.0	6.0	0.0	2.1	0.0	1.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.3	0.0	29.5	0.0	19.0	0.0	22.6
1st-Term Q (Q1), veh/ln	0.0	3.1	0.0	4.5	0.0	2.5	0.0	2.6
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.7	0.0	0.3	0.0	0.1

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.6	0.0	5.2	0.0	2.9	0.0	2.7
%ile Storage Ratio (RQ%)	0.00	0.08	0.00	0.13	0.00	0.22	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	286	0	320	0	231	0	212
Grp Sat Flow (s), veh/h/ln	0	1697	0	1697	0	1700	0	1738
Q Serve Time (g_s), s	0.0	8.6	0.0	11.6	0.0	6.9	0.0	6.9
Cycle Q Clear Time (g_c), s	0.0	8.6	0.0	11.6	0.0	6.9	0.0	6.9
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.57	0.00	0.57	0.00	0.56	0.00	0.42
Lane Grp Cap (c), veh/h	0	589	0	397	0	556	0	407
V/C Ratio (X)	0.00	0.49	0.00	0.81	0.00	0.42	0.00	0.52
Avail Cap (c_a), veh/h	0	589	0	470	0	556	0	481
Upstream Filter (I)	0.00	1.00	0.00	0.77	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.7	0.0	23.5	0.0	17.0	0.0	21.7
Incr Delay (d2), s/veh	0.0	2.8	0.0	6.7	0.0	2.3	0.0	1.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.5	0.0	30.2	0.0	19.3	0.0	22.7
1st-Term Q (Q1), veh/ln	0.0	3.1	0.0	4.3	0.0	2.5	0.0	2.6
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.7	0.0	0.4	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.5	0.0	5.1	0.0	2.8	0.0	2.8
%ile Storage Ratio (RQ%)	0.00	0.08	0.00	0.13	0.00	0.22	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	21.6
HCM 6th LOS	C

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↕		↙	↕		↙	↕	↗	↙	↕	↗
Traffic Volume (veh/h)	71	781	200	160	595	71	203	270	128	60	184	61
Future Volume (veh/h)	71	781	200	160	595	71	203	270	128	60	184	61
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	74	814	208	167	620	74	211	281	133	62	192	64
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	380	929	237	309	1153	137	461	1263	564	396	939	303
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Prop Arrive On Green	0.06	0.33	0.33	0.09	0.36	0.36	0.12	0.12	0.12	0.36	0.36	0.36
Unsig. Movement Delay												
Ln Grp Delay, s/veh	12.4	32.0	32.2	15.6	16.1	16.1	27.6	19.3	19.9	17.3	14.1	14.3
Ln Grp LOS	B	C	C	B	B	B	C	B	B	B	B	B
Approach Vol, veh/h		1096			861			625			318	
Approach Delay, s/veh		30.8			16.0			22.2			14.8	
Approach LOS		C			B			C			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			5.0	1.1	4.0		6.0	1.1	4.0			
Phs Duration (G+Y+Rc), s			25.8	9.8	24.4		25.8	8.0	26.1			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			19.5	6.2	20.8		19.5	5.5	21.5			
Max Allow Headway (MAH), s			4.7	3.8	5.3		5.2	3.8	5.3			
Max Q Clear (g_c+I1), s			15.9	5.6	18.4		9.2	3.6	11.2			
Green Ext Time (g_e), s			1.1	0.0	1.5		1.2	0.0	3.1			
Prob of Phs Call (p_c)			1.00	0.94	1.00		1.00	0.71	1.00			
Prob of Max Out (p_x)			0.00	1.00	1.00		0.00	1.00	0.41			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			1124	1781			972	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		2802		2640		3198			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		716		854		381			
Left Lane Group Data												
Assigned Mvmt		0	5	3	0	0	1	7	0			
Lane Assignment			LL (Pr/Pm)					LL (Pr/Pm)				

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Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	211	167	0	0	62	74	0
Grp Sat Flow (s), veh/h/ln	0	1124	1781	0	0	972	1781	0
Q Serve Time (g_s), s	0.0	10.8	3.6	0.0	0.0	2.9	1.6	0.0
Cycle Q Clear Time (g_c), s	0.0	13.9	3.6	0.0	0.0	7.2	1.6	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1124	552	0	0	972	750	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	21.3	19.9	0.0	0.0	21.3	19.9	0.0
Perm LT Serve Time (g_u), s	0.0	18.2	3.5	0.0	0.0	17.0	12.4	0.0
Perm LT Q Serve Time (g_ps), s	0.0	10.8	3.5	0.0	0.0	2.9	0.8	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	461	309	0	0	396	380	0
V/C Ratio (X)	0.00	0.46	0.54	0.00	0.00	0.16	0.19	0.00
Avail Cap (c_a), veh/h	0	461	336	0	0	396	438	0
Upstream Filter (I)	0.00	0.87	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	24.7	14.1	0.0	0.0	16.4	12.1	0.0
Incr Delay (d2), s/veh	0.0	2.8	1.5	0.0	0.0	0.8	0.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	27.6	15.6	0.0	0.0	17.3	12.4	0.0
1st-Term Q (Q1), veh/ln	0.0	3.2	1.2	0.0	0.0	0.6	0.6	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.1	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.5	1.4	0.0	0.0	0.7	0.6	0.0
%ile Storage Ratio (RQ%)	0.00	0.60	0.23	0.00	0.00	0.11	0.10	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	281	0	516	0	127	0	344
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	4.3	0.0	16.4	0.0	3.0	0.0	9.2
Cycle Q Clear Time (g_c), s	0.0	4.3	0.0	16.4	0.0	3.0	0.0	9.2
Lane Grp Cap (c), veh/h	0	1263	0	589	0	632	0	640
V/C Ratio (X)	0.00	0.22	0.00	0.88	0.00	0.20	0.00	0.54
Avail Cap (c_a), veh/h	0	1263	0	616	0	632	0	640
Upstream Filter (I)	0.00	0.87	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	19.0	0.0	18.9	0.0	13.4	0.0	15.2
Incr Delay (d2), s/veh	0.0	0.4	0.0	13.1	0.0	0.7	0.0	0.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.3	0.0	32.0	0.0	14.1	0.0	16.1
1st-Term Q (Q1), veh/ln	0.0	1.7	0.0	6.0	0.0	1.1	0.0	3.3
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	2.1	0.0	0.1	0.0	0.2

HCM 6th Signalized Intersection Capacity Analysis

8:

06/08/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.8	0.0	8.1	0.0	1.2	0.0	3.5
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.24	0.00	0.13	0.00	0.07
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	133	0	506	0	129	0	350
Grp Sat Flow (s), veh/h/ln	0	1585	0	1741	0	1717	0	1802
Q Serve Time (g_s), s	0.0	4.6	0.0	16.4	0.0	3.1	0.0	9.2
Cycle Q Clear Time (g_c), s	0.0	4.6	0.0	16.4	0.0	3.1	0.0	9.2
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.41	0.00	0.50	0.00	0.21
Lane Grp Cap (c), veh/h	0	564	0	577	0	610	0	649
V/C Ratio (X)	0.00	0.24	0.00	0.88	0.00	0.21	0.00	0.54
Avail Cap (c_a), veh/h	0	564	0	604	0	610	0	649
Upstream Filter (I)	0.00	0.87	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	19.1	0.0	18.9	0.0	13.5	0.0	15.2
Incr Delay (d2), s/veh	0.0	0.9	0.0	13.3	0.0	0.8	0.0	0.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.9	0.0	32.2	0.0	14.3	0.0	16.1
1st-Term Q (Q1), veh/ln	0.0	1.6	0.0	5.9	0.0	1.1	0.0	3.4
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	2.1	0.0	0.1	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.7	0.0	8.0	0.0	1.2	0.0	3.5
%ile Storage Ratio (RQ%)	0.00	0.30	0.00	0.24	0.00	0.14	0.00	0.07
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

Appendix C. Existing Level of Service Worksheets

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PHASE 1

HCM 6th Signalized Intersection Capacity Analysis

1: Tapo Canyon Rd & E Los Angeles Ave

07/23/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	588	76	195	1006	0	257	0	534	0	0	0
Future Volume (veh/h)	0	588	76	195	1006	0	257	0	534	0	0	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	700	90	232	1198	0	306	0	636	0	0	0
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	2	781	100	260	1540	622	744	1723	769	311	1094	488
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.00	0.33	0.33	0.19	0.58	0.00	0.18	0.00	0.48	0.00	0.00	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	53.6	53.6	60.5	20.7	0.0	18.7	0.0	34.3	0.0	0.0	0.0
Ln Grp LOS	A	D	D	E	C	A	B	A	C	A	A	A
Approach Vol, veh/h		790			1430			942			0	
Approach Delay, s/veh		53.6			27.2			29.2			0.0	
Approach LOS		D			C			C				
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	3.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		0.0	57.8	20.6	31.6	19.5	38.4	0.0	52.2			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		5.0	39.5	17.5	30.0	20.9	23.6	5.0	42.5			
Max Allow Headway (MAH), s		0.0	3.9	3.7	4.9	3.7	0.0	0.0	4.9			
Max Q Clear (g_c+I1), s		0.0	40.0	16.0	25.2	14.5	0.0	0.0	30.5			
Green Ext Time (g_e), s		0.0	0.0	0.1	1.9	0.5	0.0	0.0	6.1			
Prob of Phs Call (p_c)		0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00			
Prob of Max Out (p_x)		0.00	0.00	1.00	1.00	0.18	0.00	0.00	0.48			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3167		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		407		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	0	0	232	0	306	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	0.0	0.0	14.0	0.0	12.5	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	14.0	0.0	12.5	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	792	0	0	0	1418	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	33.9	0.0	0.0	0.0	35.9	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	33.9	0.0	0.0	0.0	33.9	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	311	0	260	0	744	0	2	0
V/C Ratio (X)	0.00	0.00	0.89	0.00	0.41	0.00	0.00	0.00
Avail Cap (c_a), veh/h	390	0	283	0	840	0	81	0
Upstream Filter (I)	0.00	0.00	0.56	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	43.5	0.0	18.3	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	17.0	0.0	0.4	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
Control Delay (d), s/veh	0.0	0.0	60.5	0.0	18.7	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	5.6	0.0	4.5	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	1.2	0.0	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	6.8	0.0	4.5	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.64	0.00	0.46	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	0	0	392	0	0	0	1198
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	23.1	0.0	0.0	0.0	28.5
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	23.1	0.0	0.0	0.0	28.5
Lane Grp Cap (c), veh/h	0	1723	0	438	0	1094	0	1540
V/C Ratio (X)	0.00	0.00	0.00	0.90	0.00	0.00	0.00	0.78
Avail Cap (c_a), veh/h	0	1723	0	485	0	1094	0	1540
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.56
Uniform Delay (d1), s/veh	0.0	0.0	0.0	35.6	0.0	0.0	0.0	19.2
Incr Delay (d2), s/veh	0.0	0.0	0.0	18.0	0.0	0.0	0.0	1.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	53.6	0.0	0.0	0.0	20.7
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	8.8	0.0	0.0	0.0	8.9
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.3

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	11.0	0.0	0.0	0.0	9.2
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.24
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data




























Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	636	0	398	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1797	0	1585	0	1585
Q Serve Time (g_s), s	0.0	38.0	0.0	23.2	0.0	0.0	0.0	4.5
Cycle Q Clear Time (g_c), s	0.0	38.0	0.0	23.2	0.0	0.0	0.0	4.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.5
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.23	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	769	0	443	0	488	0	622
V/C Ratio (X)	0.00	0.83	0.00	0.90	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	769	0	490	0	488	0	622
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	24.4	0.0	35.6	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	10.0	0.0	18.0	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
Control Delay (d), s/veh	0.0	34.3	0.0	53.6	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	12.9	0.0	8.9	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	2.1	0.0	2.2	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	15.1	0.0	11.1	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	2.55	0.00	0.36	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	34.4
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
2: Tapo St & E Los Angeles Ave

07/23/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			 			 	 
Traffic Volume (veh/h)	413	691	63	70	851	192	20	38	33	197	116	346
Future Volume (veh/h)	413	691	63	70	851	192	20	38	33	197	116	346
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	459	768	70	78	946	213	22	42	37	219	129	384
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	525	1517	138	100	1052	236	343	684	535	520	674	812
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
Prop Arrive On Green	0.30	0.92	0.92	0.06	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
Unsig. Movement Delay												
Ln Grp Delay, s/veh	43.1	2.8	2.7	63.6	46.9	47.3	27.0	23.2	23.3	30.9	24.8	19.2
Ln Grp LOS	D	A	A	E	D	D	C	C	C	C	C	B
Approach Vol, veh/h		1297			1237			101			732	
Approach Delay, s/veh		17.0			48.1			24.0			23.7	
Approach LOS		B			D			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	2.0	4.0		5.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			44.2	10.7	55.2		44.2	21.2	44.6			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			31.3	10.5	54.5		31.3	21.5	43.5			
Max Allow Headway (MAH), s			5.2	3.7	4.9		4.1	3.7	5.0			
Max Q Clear (g_c+I1), s			9.1	6.8	5.8		19.1	15.9	36.2			
Green Ext Time (g_e), s			0.4	0.0	5.5		2.3	0.8	3.9			
Prob of Phs Call (p_c)			1.00	0.91	1.00		1.00	1.00	1.00			
Prob of Max Out (p_x)			0.00	0.95	0.00		0.00	0.35	0.80			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			887	1781			1320	3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1897		3293		1870		2882			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1483		300		1585		648			
Left Lane Group Data												
Assigned Mvmt		0	5	3	0	0	1	7	0			
Lane Assignment			L	L (Prot)			L	L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis
2: Tapo St & E Los Angeles Ave

07/23/2020

Lanes in Grp	0	1	1	0	0	1	2	0
Grp Vol (v), veh/h	0	22	78	0	0	219	459	0
Grp Sat Flow (s), veh/h/ln	0	887	1781	0	0	1320	1728	0
Q Serve Time (g_s), s	0.0	1.9	4.8	0.0	0.0	14.4	13.9	0.0
Cycle Q Clear Time (g_c), s	0.0	7.1	4.8	0.0	0.0	16.2	13.9	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	887	0	0	0	1320	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	39.7	0.0	0.0	0.0	39.7	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	34.5	0.0	0.0	0.0	37.9	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	1.9	0.0	0.0	0.0	14.4	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	343	100	0	0	520	525	0
V/C Ratio (X)	0.00	0.06	0.78	0.00	0.00	0.42	0.87	0.00
Avail Cap (c_a), veh/h	0	343	170	0	0	520	675	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	1.00	0.54	0.00
Uniform Delay (d1), s/veh	0.0	26.6	51.2	0.0	0.0	28.4	37.3	0.0
Incr Delay (d2), s/veh	0.0	0.4	12.3	0.0	0.0	2.5	5.8	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	27.0	63.6	0.0	0.0	30.9	43.1	0.0
1st-Term Q (Q1), veh/ln	0.0	0.4	2.1	0.0	0.0	4.4	4.7	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.3	0.0	0.0	0.4	0.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.4	2.4	0.0	0.0	4.7	5.1	0.0
%ile Storage Ratio (RQ%)	0.00	0.17	0.44	0.00	0.00	1.21	0.50	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	39	0	414	0	129	0	583
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	1.6	0.0	3.8	0.0	5.2	0.0	34.1
Cycle Q Clear Time (g_c), s	0.0	1.6	0.0	3.8	0.0	5.2	0.0	34.1
Lane Grp Cap (c), veh/h	0	641	0	818	0	674	0	648
V/C Ratio (X)	0.00	0.06	0.00	0.51	0.00	0.19	0.00	0.90
Avail Cap (c_a), veh/h	0	641	0	880	0	674	0	703
Upstream Filter (I)	0.00	1.00	0.00	0.54	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	23.0	0.0	2.5	0.0	24.2	0.0	33.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.3	0.0	0.6	0.0	13.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	23.2	0.0	2.8	0.0	24.8	0.0	46.9
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	0.8	0.0	2.2	0.0	13.7
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.1	0.0	2.5

HCM 6th Signalized Intersection Capacity Analysis 2: Tapo St & E Los Angeles Ave

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.7	0.0	0.9	0.0	2.4	0.0	16.2
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.02	0.00	0.61	0.00	1.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data













Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	40	0	424	0	384	0	576
Grp Sat Flow (s), veh/h/ln	0	1603	0	1816	0	1585	0	1754
Q Serve Time (g_s), s	0.0	1.8	0.0	3.8	0.0	17.1	0.0	34.2
Cycle Q Clear Time (g_c), s	0.0	1.8	0.0	3.8	0.0	17.1	0.0	34.2
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	16.7	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.92	0.00	0.17	0.00	1.00	0.00	0.37
Lane Grp Cap (c), veh/h	0	578	0	837	0	812	0	640
V/C Ratio (X)	0.00	0.07	0.00	0.51	0.00	0.47	0.00	0.90
Avail Cap (c_a), veh/h	0	578	0	900	0	812	0	694
Upstream Filter (I)	0.00	1.00	0.00	0.54	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	23.1	0.0	2.5	0.0	17.3	0.0	33.1
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.3	0.0	2.0	0.0	14.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	23.3	0.0	2.7	0.0	19.2	0.0	47.3
1st-Term Q (Q1), veh/ln	0.0	0.7	0.0	0.8	0.0	5.7	0.0	13.6
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.4	0.0	2.5
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.7	0.0	0.9	0.0	6.2	0.0	16.1
%ile Storage Ratio (RQ%)	0.00	0.08	0.00	0.02	0.00	1.57	0.00	1.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	30.1
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
3: E Los Angeles Ave

03/08/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (veh/h)	0	898	0	0	1179	0	0	0	0	0	0	0
Future Volume (veh/h)	0	898	0	0	1179	0	0	0	0	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	1009	0	0	1325	0	0	0	0	0	0	0
Peak Hour Factor	0.92	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	1809	0	0	1809	0	0	612	0	0	612	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
Prop Arrive On Green	0.00	0.51	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	10.5	0.0	0.0	13.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ln Grp LOS	A	B	A	A	B	A	A	A	A	A	A	A
Approach Vol, veh/h		1009			1325			0			0	
Approach Delay, s/veh		10.5			13.2			0.0			0.0	
Approach LOS		B			B							
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			32.5		22.5		32.5		22.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			28.0		18.0		28.0		18.0			
Max Allow Headway (MAH), s			4.9		0.0		4.9		0.0			
Max Q Clear (g_c+I1), s			12.7		0.0		18.1		0.0			
Green Ext Time (g_e), s			5.8		0.0		5.9		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3741		1870		3741		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

03/08/2021

Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	28.0	0.0	18.0	0.0	28.0	0.0	18.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	1009	0	0	0	1325	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	10.7	0.0	0.0	0.0	16.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	10.7	0.0	0.0	0.0	16.1	0.0	0.0
Lane Grp Cap (c), veh/h	0	1809	0	612	0	1809	0	612
V/C Ratio (X)	0.00	0.56	0.00	0.00	0.00	0.73	0.00	0.00
Avail Cap (c_a), veh/h	0	1809	0	612	0	1809	0	612
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	9.3	0.0	0.0	0.0	10.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.2	0.0	0.0	0.0	2.7	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
Control Delay (d), s/veh	0.0	10.5	0.0	0.0	0.0	13.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.8	0.0	0.0	0.0	4.1	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.7	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.1	0.0	0.0	0.0	4.8	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.79	0.00	0.00	0.00	1.39	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

















Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	12.1
HCM 6th LOS	B

HCM 6th Signalized Intersection Capacity Analysis
4: Hlidden Ranch Dr

03/08/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	0	0	247	0	0	84	0
Future Volume (veh/h)	0	0	0	0	0	0	0	247	0	0	84	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	287	0	0	98	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	457	0	0	457	0	0	1226	0	0	1226	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.57	1.00	1.00	0.57	1.00
Prop Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.37	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.1	0.0	0.0	10.8	0.0
Ln Grp LOS	A	A	A	A	A	A	A	B	A	A	B	A
Approach Vol, veh/h		0			0			287			98	
Approach Delay, s/veh		0.0			0.0			13.1			10.8	
Approach LOS								B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			63.5		26.5		63.5		26.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			59.0		22.0		59.0		22.0			
Max Allow Headway (MAH), s			5.1		0.0		5.1		0.0			
Max Q Clear (g_c+I1), s			11.5		0.0		5.0		0.0			
Green Ext Time (g_e), s			1.8		0.0		0.5		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1870		1870		1870		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis

4: Hidden Ranch Dr

03/08/2021

Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	59.0	0.0	22.0	0.0	59.0	0.0	22.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	287	0	0	0	98	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	1870	0	1870	0	1870
Q Serve Time (g_s), s	0.0	9.5	0.0	0.0	0.0	3.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	9.5	0.0	0.0	0.0	3.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1226	0	457	0	1226	0	457
V/C Ratio (X)	0.00	0.23	0.00	0.00	0.00	0.08	0.00	0.00
Avail Cap (c_a), veh/h	0	1226	0	457	0	1226	0	457
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	12.7	0.0	0.0	0.0	10.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.1	0.0	0.0	0.0	10.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.0	0.0	0.0	0.0	1.1	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

4: Hidden Ranch Dr

03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.1	0.0	0.0	0.0	1.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	2.99	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

Notes

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

HCM 6th Signalized Intersection Capacity Analysis
5: Sequoia Ave & Cochran St

07/23/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	261	493	47	86	772	256	88	436	48	143	310	336
Future Volume (veh/h)	261	493	47	86	772	256	88	436	48	143	310	336
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	362	685	65	119	1072	217	122	606	67	199	431	328
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	402	1373	613	462	1066	476	206	1022	113	278	610	462
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.32	0.77	0.77	0.14	0.60	0.60	0.63	0.63	0.63	0.63	0.63	0.32
Unsig. Movement Delay												
Ln Grp Delay, s/veh	33.4	4.9	4.3	12.0	40.9	10.0	29.9	13.3	13.2	28.1	15.3	24.2
Ln Grp LOS	C	A	A	B	F	A	C	B	B	C	B	C
Approach Vol, veh/h		1112			1408			795			958	
Approach Delay, s/veh		14.2			33.7			15.8			21.3	
Approach LOS		B			C			B			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	1.1	3.0		6.0	1.1	3.0			
Phs Duration (G+Y+Rc), s			23.5	8.8	27.7		23.5	14.0	22.5			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			19.0	5.9	21.6		19.0	9.5	18.0			
Max Allow Headway (MAH), s			5.1	3.7	4.8		5.2	3.7	4.7			
Max Q Clear (g_c+I1), s			21.0	4.7	6.3		21.0	10.5	20.0			
Green Ext Time (g_e), s			0.0	0.0	4.0		0.0	0.0	0.0			
Prob of Phs Call (p_c)			1.00	0.86	1.00		1.00	1.00	1.00			
Prob of Max Out (p_x)			0.00	1.00	0.11		0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			706	1781			765	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3227		3554		1927		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			356		1585		1458		1585			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

HCM 6th Signalized Intersection Capacity Analysis

5: Sequoia Ave & Cochran St

07/23/2020

Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	122	119	0	0	199	362	0
Grp Sat Flow (s), veh/h/ln	0	706	1781	0	0	765	1781	0
Q Serve Time (g_s), s	0.0	7.3	2.7	0.0	0.0	12.4	8.5	0.0
Cycle Q Clear Time (g_c), s	0.0	19.0	2.7	0.0	0.0	19.0	8.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	706	712	0	0	765	428	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	19.0	18.0	0.0	0.0	19.0	20.0	0.0
Perm LT Serve Time (g_u), s	0.0	7.3	18.0	0.0	0.0	12.4	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	7.3	0.0	0.0	0.0	12.4	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	206	462	0	0	278	402	0
V/C Ratio (X)	0.00	0.59	0.26	0.00	0.00	0.72	0.90	0.00
Avail Cap (c_a), veh/h	0	206	509	0	0	278	402	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.84	1.00	0.00
Uniform Delay (d1), s/veh	0.0	17.9	11.7	0.0	0.0	15.6	10.7	0.0
Incr Delay (d2), s/veh	0.0	11.9	0.3	0.0	0.0	12.5	22.7	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	29.9	12.0	0.0	0.0	28.1	33.4	0.0
1st-Term Q (Q1), veh/ln	0.0	1.0	0.8	0.0	0.0	1.2	1.7	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.0	0.0	1.0	2.5	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.7	0.8	0.0	0.0	2.2	4.2	0.0
%ile Storage Ratio (RQ%)	0.00	0.43	0.14	0.00	0.00	0.37	0.63	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	2
Grp Vol (v), veh/h	0	333	0	685	0	397	0	1072
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	6.6	0.0	4.3	0.0	8.9	0.0	18.0
Cycle Q Clear Time (g_c), s	0.0	6.6	0.0	4.3	0.0	8.9	0.0	18.0
Lane Grp Cap (c), veh/h	0	563	0	1373	0	563	0	1066
V/C Ratio (X)	0.00	0.59	0.00	0.50	0.00	0.71	0.00	1.01
Avail Cap (c_a), veh/h	0	563	0	1373	0	563	0	1066
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.84	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.7	0.0	4.7	0.0	9.1	0.0	12.0
Incr Delay (d2), s/veh	0.0	4.5	0.0	0.3	0.0	6.2	0.0	28.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.3	0.0	4.9	0.0	15.3	0.0	40.9
1st-Term Q (Q1), veh/ln	0.0	1.6	0.0	0.9	0.0	1.9	0.0	3.0
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.1	0.0	1.0	0.0	4.3

HCM 6th Signalized Intersection Capacity Analysis

5: Sequoia Ave & Cochran St

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.3	0.0	1.0	0.0	2.9	0.0	7.3
%ile Storage Ratio (RQ%)	0.00	0.24	0.00	0.02	0.00	0.06	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Right Lane Group Data

























Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		R		T+R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	340	0	65	0	362	0	217
Grp Sat Flow (s), veh/h/ln	0	1806	0	1585	0	1608	0	1585
Q Serve Time (g_s), s	0.0	6.6	0.0	0.6	0.0	11.7	0.0	4.5
Cycle Q Clear Time (g_c), s	0.0	6.6	0.0	0.6	0.0	11.7	0.0	4.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.20	0.00	1.00	0.00	0.91	0.00	1.00
Lane Grp Cap (c), veh/h	0	572	0	613	0	509	0	476
V/C Ratio (X)	0.00	0.59	0.00	0.11	0.00	0.71	0.00	0.46
Avail Cap (c_a), veh/h	0	572	0	613	0	509	0	476
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.84	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.7	0.0	4.2	0.0	17.2	0.0	9.3
Incr Delay (d2), s/veh	0.0	4.5	0.0	0.1	0.0	6.9	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
Control Delay (d), s/veh	0.0	13.2	0.0	4.3	0.0	24.2	0.0	10.0
1st-Term Q (Q1), veh/ln	0.0	1.6	0.0	0.2	0.0	3.5	0.0	1.1
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.0	0.0	1.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.3	0.0	0.2	0.0	4.4	0.0	1.2
%ile Storage Ratio (RQ%)	0.00	0.24	0.00	0.03	0.00	0.10	0.00	0.20
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	22.5
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
6: Tapo Canyon Rd & Cochran St

07/23/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	519	526	8	21	502	375	10	109	13	433	73	449
Future Volume (veh/h)	519	526	8	21	502	375	10	109	13	433	73	449
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	618	626	10	25	598	327	12	130	15	515	87	535
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	608	1603	715	260	643	287	49	672	300	536	1172	990
HCM Platoon Ratio	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.00
Prop Arrive On Green	0.49	0.75	0.75	0.04	0.30	0.30	0.02	0.31	0.31	0.26	0.55	0.33
Unsig. Movement Delay												
Ln Grp Delay, s/veh	57.3	7.8	6.9	31.5	51.3	125.9	50.9	29.4	28.4	66.1	15.5	12.7
Ln Grp LOS	F	A	A	C	D	F	D	C	C	E	B	B
Approach Vol, veh/h		1254			950			157			1137	
Approach Delay, s/veh		32.2			76.4			30.9			37.1	
Approach LOS		C			E			C			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		2.0	3.0	1.1	3.0	2.0	3.0	1.1	3.0			
Phs Duration (G+Y+Rc), s		20.0	23.4	7.0	49.6	5.9	37.5	34.0	22.6			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		15.5	18.9	5.0	42.6	5.0	29.4	29.5	18.1			
Max Allow Headway (MAH), s		3.8	5.1	3.8	5.2	3.8	4.2	3.8	4.8			
Max Q Clear (g_c+I1), s		16.7	4.7	3.1	8.3	2.3	21.1	31.5	20.1			
Green Ext Time (g_e), s		0.0	0.6	0.0	4.9	0.0	1.8	0.0	0.0			
Prob of Phs Call (p_c)		1.00	1.00	0.50	1.00	0.28	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		3456		1781		3456		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Prot)		L (Pr/Pm)		L (Prot)		L (Pr/Pm)				

HCM 6th Signalized Intersection Capacity Analysis
6: Tapo Canyon Rd & Cochran St

07/23/2020

Lanes in Grp	2	0	1	0	2	0	1	0
Grp Vol (v), veh/h	515	0	25	0	12	0	618	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	1781	0
Q Serve Time (g_s), s	14.7	0.0	1.1	0.0	0.3	0.0	29.5	0.0
Cycle Q Clear Time (g_c), s	14.7	0.0	1.1	0.0	0.3	0.0	29.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	792	0	0	0	605	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	18.1	0.0	0.0	0.0	20.1	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	18.1	0.0	0.0	0.0	1.8	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	536	0	260	0	49	0	608	0
V/C Ratio (X)	0.96	0.00	0.10	0.00	0.25	0.00	1.02	0.00
Avail Cap (c_a), veh/h	536	0	304	0	173	0	608	0
Upstream Filter (I)	1.00	0.00	0.79	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	36.8	0.0	31.4	0.0	48.3	0.0	16.6	0.0
Incr Delay (d2), s/veh	29.3	0.0	0.1	0.0	2.6	0.0	40.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	66.1	0.0	31.5	0.0	50.9	0.0	57.3	0.0
1st-Term Q (Q1), veh/ln	5.4	0.0	0.5	0.0	0.1	0.0	7.9	0.0
2nd-Term Q (Q2), veh/ln	2.2	0.0	0.0	0.0	0.0	0.0	6.9	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	7.6	0.0	0.5	0.0	0.2	0.0	14.7	0.0
%ile Storage Ratio (RQ%)	1.93	0.00	0.04	0.00	0.03	0.00	1.25	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	2	0	2
Grp Vol (v), veh/h	0	130	0	626	0	87	0	598
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	2.7	0.0	6.3	0.0	1.2	0.0	16.3
Cycle Q Clear Time (g_c), s	0.0	2.7	0.0	6.3	0.0	1.2	0.0	16.3
Lane Grp Cap (c), veh/h	0	672	0	1603	0	1172	0	643
V/C Ratio (X)	0.00	0.19	0.00	0.39	0.00	0.07	0.00	0.93
Avail Cap (c_a), veh/h	0	672	0	1603	0	1172	0	643
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.79
Uniform Delay (d1), s/veh	0.0	28.7	0.0	7.7	0.0	15.4	0.0	34.4
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.2	0.0	0.1	0.0	16.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	29.4	0.0	7.8	0.0	15.5	0.0	51.3
1st-Term Q (Q1), veh/ln	0.0	1.1	0.0	1.9	0.0	0.5	0.0	6.1
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	1.5

HCM 6th Signalized Intersection Capacity Analysis

6: Tapo Canyon Rd & Cochran St

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.2	0.0	2.0	0.0	0.5	0.0	7.6
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.07	0.00	0.06	0.00	0.19
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	15	0	10	0	535	0	327
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	0.7	0.0	0.2	0.0	19.1	0.0	18.1
Cycle Q Clear Time (g_c), s	0.0	0.7	0.0	0.2	0.0	19.1	0.0	18.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	29.5	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	300	0	715	0	990	0	287
V/C Ratio (X)	0.00	0.05	0.00	0.01	0.00	0.54	0.00	1.14
Avail Cap (c_a), veh/h	0	300	0	715	0	990	0	287
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.79
Uniform Delay (d1), s/veh	0.0	28.1	0.0	6.9	0.0	10.6	0.0	35.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.0	0.0	2.1	0.0	90.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	28.4	0.0	6.9	0.0	12.7	0.0	125.9
1st-Term Q (Q1), veh/ln	0.0	0.3	0.0	0.1	0.0	6.1	0.0	6.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.6	0.0	7.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	0.1	0.0	6.7	0.0	13.2
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.02	0.00	0.85	0.00	0.33
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Intersection Summary

HCM 6th Ctrl Delay	45.8
HCM 6th LOS	D

HCM 6th Signalized Intersection Capacity Analysis
7: Tapo St & Cochran St

07/23/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	351	185	264	314	130	151	258	103	187	370	165
Future Volume (veh/h)	210	351	185	264	314	130	151	258	103	187	370	165
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	250	418	220	314	374	155	180	307	123	223	440	196
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	415	496	258	401	613	250	369	722	283	449	702	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
Prop Arrive On Green	0.12	0.22	0.22	0.15	0.25	0.25	0.09	0.29	0.29	0.10	0.29	0.29
Unsig. Movement Delay												
Ln Grp Delay, s/veh	21.2	38.0	39.8	29.3	26.9	27.3	18.0	24.1	24.4	17.5	28.6	29.1
Ln Grp LOS	C	D	D	C	C	C	B	C	C	B	C	C
Approach Vol, veh/h		888			843			610			859	
Approach Delay, s/veh		33.9			27.9			22.4			25.9	
Approach LOS		C			C			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		11.8	26.2	16.0	21.0	11.6	26.4	13.8	23.2			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		7.3	20.2	11.5	18.0	8.5	19.0	9.3	20.2			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.4	3.8	5.3	3.8	5.3			
Max Q Clear (g_c+I1), s		8.6	9.7	12.1	15.5	7.2	14.1	10.0	12.3			
Green Ext Time (g_e), s		0.0	1.9	0.0	1.0	0.1	1.8	0.0	2.0			
Prob of Phs Call (p_c)		0.99	1.00	1.00	1.00	0.98	1.00	0.99	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.54			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			2493		2259		2398		2461			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			978		1176		1059		1005			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)				

HCM 6th Signalized Intersection Capacity Analysis
7: Tapo St & Cochran St

07/23/2020

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	223	0	314	0	180	0	250	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	6.6	0.0	10.1	0.0	5.2	0.0	8.0	0.0
Cycle Q Clear Time (g_c), s	6.6	0.0	10.1	0.0	5.2	0.0	8.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	958	0	790	0	792	0	874	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	21.7	0.0	16.5	0.0	21.7	0.0	16.5	0.0
Perm LT Serve Time (g_u), s	14.1	0.0	3.0	0.0	9.9	0.0	8.4	0.0
Perm LT Q Serve Time (g_ps), s	2.3	0.0	3.0	0.0	3.5	0.0	3.2	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	449	0	401	0	369	0	415	0
V/C Ratio (X)	0.50	0.00	0.78	0.00	0.49	0.00	0.60	0.00
Avail Cap (c_a), veh/h	449	0	401	0	402	0	415	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.74	0.00
Uniform Delay (d1), s/veh	16.6	0.0	19.6	0.0	17.0	0.0	19.4	0.0
Incr Delay (d2), s/veh	0.9	0.0	9.8	0.0	1.0	0.0	1.8	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	17.5	0.0	29.3	0.0	18.0	0.0	21.2	0.0
1st-Term Q (Q1), veh/ln	2.5	0.0	3.9	0.0	2.0	0.0	3.1	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	1.1	0.0	0.1	0.0	0.2	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.6	0.0	4.9	0.0	2.1	0.0	3.3	0.0
%ile Storage Ratio (RQ%)	0.55	0.00	1.05	0.00	0.38	0.00	0.71	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	217	0	328	0	325	0	268
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	7.4	0.0	13.2	0.0	11.9	0.0	10.0
Cycle Q Clear Time (g_c), s	0.0	7.4	0.0	13.2	0.0	11.9	0.0	10.0
Lane Grp Cap (c), veh/h	0	515	0	390	0	520	0	442
V/C Ratio (X)	0.00	0.42	0.00	0.84	0.00	0.63	0.00	0.61
Avail Cap (c_a), veh/h	0	515	0	426	0	520	0	479
Upstream Filter (I)	0.00	1.00	0.00	0.74	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	21.5	0.0	28.0	0.0	23.0	0.0	24.9
Incr Delay (d2), s/veh	0.0	2.5	0.0	10.0	0.0	5.6	0.0	1.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	24.1	0.0	38.0	0.0	28.6	0.0	26.9
1st-Term Q (Q1), veh/ln	0.0	2.9	0.0	5.4	0.0	4.7	0.0	4.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	1.1	0.0	0.8	0.0	0.2

HCM 6th Signalized Intersection Capacity Analysis

7: Tapo St & Cochran St

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.3	0.0	6.5	0.0	5.5	0.0	4.3
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.16	0.00	0.42	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	213	0	310	0	311	0	261
Grp Sat Flow (s), veh/h/ln	0	1694	0	1659	0	1680	0	1689
Q Serve Time (g_s), s	0.0	7.7	0.0	13.5	0.0	12.1	0.0	10.3
Cycle Q Clear Time (g_c), s	0.0	7.7	0.0	13.5	0.0	12.1	0.0	10.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.58	0.00	0.71	0.00	0.63	0.00	0.59
Lane Grp Cap (c), veh/h	0	491	0	364	0	492	0	421
V/C Ratio (X)	0.00	0.43	0.00	0.85	0.00	0.63	0.00	0.62
Avail Cap (c_a), veh/h	0	491	0	398	0	492	0	455
Upstream Filter (I)	0.00	1.00	0.00	0.74	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	21.6	0.0	28.1	0.0	23.0	0.0	25.0
Incr Delay (d2), s/veh	0.0	2.8	0.0	11.7	0.0	6.1	0.0	2.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	24.4	0.0	39.8	0.0	29.1	0.0	27.3
1st-Term Q (Q1), veh/ln	0.0	2.9	0.0	5.1	0.0	4.5	0.0	3.9
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	1.2	0.0	0.8	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.3	0.0	6.3	0.0	5.4	0.0	4.2
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.16	0.00	0.41	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	28.0
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
8: Sequoia Ave & Cochran St

07/23/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	440	145	202	656	87	226	338	362	112	301	52
Future Volume (veh/h)	39	440	145	202	656	87	226	338	362	112	301	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	629	64	289	937	124	323	483	231	160	430	-212
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	178	710	72	365	1008	133	634	1737	1002	437	1737	0
HCM Platoon Ratio	2.00	2.00	1.66	1.66	1.66	1.66	2.00	2.00	2.00	1.66	1.66	1.66
Prop Arrive On Green	0.08	0.44	0.36	0.24	0.53	0.53	0.98	0.98	0.98	0.81	0.81	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	26.8	42.3	43.0	31.7	41.4	41.3	2.6	0.8	0.6	7.4	4.6	0.0
Ln Grp LOS	C	D	D	C	D	D	A	A	A	A	A	A
Approach Vol, veh/h		749			1350			1037			378	
Approach Delay, s/veh		41.5			39.3			1.3			5.8	
Approach LOS		D			D			A			A	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			5.0	1.1	4.0		6.0	1.1	4.0			
Phs Duration (G+Y+Rc), s			48.5	17.4	24.1		48.5	8.3	33.2			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			41.7	12.9	21.9		41.7	5.1	29.7			
Max Allow Headway (MAH), s			4.7	3.8	5.3		5.6	3.8	5.3			
Max Q Clear (g_c+I1), s			5.9	13.0	18.1		8.4	4.1	26.8			
Green Ext Time (g_e), s			6.2	0.0	1.5		2.9	0.0	1.8			
Prob of Phs Call (p_c)			1.00	1.00	1.00		1.00	0.75	1.00			
Prob of Max Out (p_x)			0.00	1.00	1.00		0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			1163	1781			736	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3257		3647		3155			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		331		0		417			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

HCM 6th Signalized Intersection Capacity Analysis
8: Sequoia Ave & Cochran St

07/23/2020

Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	323	289	0	0	160	56	0
Grp Sat Flow (s), veh/h/ln	0	1163	1781	0	0	736	1781	0
Q Serve Time (g_s), s	0.0	2.7	11.0	0.0	0.0	6.0	2.1	0.0
Cycle Q Clear Time (g_c), s	0.0	3.9	11.0	0.0	0.0	6.4	2.1	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1163	751	0	0	736	532	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	44.0	21.6	0.0	0.0	44.0	19.6	0.0
Perm LT Serve Time (g_u), s	0.0	42.8	3.5	0.0	0.0	43.6	4.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	2.7	3.5	0.0	0.0	6.0	1.8	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	634	365	0	0	437	178	0
V/C Ratio (X)	0.00	0.51	0.79	0.00	0.00	0.37	0.31	0.00
Avail Cap (c_a), veh/h	0	634	365	0	0	437	204	0
Upstream Filter (I)	0.00	0.66	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	0.6	20.4	0.0	0.0	5.0	25.8	0.0
Incr Delay (d2), s/veh	0.0	1.9	11.3	0.0	0.0	2.4	1.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	2.6	31.7	0.0	0.0	7.4	26.8	0.0
1st-Term Q (Q1), veh/ln	0.0	0.1	3.7	0.0	0.0	0.6	0.9	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	1.1	0.0	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.5	4.9	0.0	0.0	0.9	0.9	0.0
%ile Storage Ratio (RQ%)	0.00	0.08	0.83	0.00	0.00	0.15	0.15	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	483	0	343	0	218	0	528
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	0.4	0.0	15.9	0.0	1.2	0.0	24.8
Cycle Q Clear Time (g_c), s	0.0	0.4	0.0	15.9	0.0	1.2	0.0	24.8
Lane Grp Cap (c), veh/h	0	1737	0	387	0	1737	0	568
V/C Ratio (X)	0.00	0.28	0.00	0.89	0.00	0.13	0.00	0.93
Avail Cap (c_a), veh/h	0	1737	0	432	0	1737	0	586
Upstream Filter (I)	0.00	0.66	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.5	0.0	24.4	0.0	4.4	0.0	20.2
Incr Delay (d2), s/veh	0.0	0.3	0.0	18.0	0.0	0.1	0.0	21.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.8	0.0	42.3	0.0	4.6	0.0	41.4
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	4.8	0.0	0.4	0.0	7.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	1.9	0.0	0.0	0.0	3.3

HCM 6th Signalized Intersection Capacity Analysis

8: Sequoia Ave & Cochran St

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	6.7	0.0	0.4	0.0	10.6
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.20	0.00	0.06	0.00	0.24
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data
























Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R				T+R
Lanes in Grp	0	1	0	1	0	0	0	1
Grp Vol (v), veh/h	0	231	0	350	0	0	0	533
Grp Sat Flow (s), veh/h/ln	0	1585	0	1811	0	0	0	1795
Q Serve Time (g_s), s	0.0	0.3	0.0	16.1	0.0	0.0	0.0	24.8
Cycle Q Clear Time (g_c), s	0.0	0.3	0.0	16.1	0.0	0.0	0.0	24.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	12.9	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.18	0.00	0.00	0.00	0.23
Lane Grp Cap (c), veh/h	0	1002	0	395	0	0	0	573
V/C Ratio (X)	0.00	0.23	0.00	0.89	0.00	0.00	0.00	0.93
Avail Cap (c_a), veh/h	0	1002	0	441	0	0	0	592
Upstream Filter (I)	0.00	0.66	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.3	0.0	25.0	0.0	0.0	0.0	20.2
Incr Delay (d2), s/veh	0.0	0.4	0.0	18.0	0.0	0.0	0.0	21.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.6	0.0	43.0	0.0	0.0	0.0	41.3
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	5.0	0.0	0.0	0.0	7.3
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	2.0	0.0	0.0	0.0	3.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	7.0	0.0	0.0	0.0	10.7
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.20	0.00	0.00	0.00	0.24
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	24.9
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

07/23/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	967	32	187	861	0	255	0	631	0	0	0
Future Volume (veh/h)	0	967	32	187	861	0	255	0	631	0	0	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1018	34	197	906	0	268	0	664	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	2	1060	35	227	1703	680	654	1496	667	266	848	378
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.00	0.60	0.60	0.25	0.96	0.00	0.26	0.00	0.84	0.00	0.00	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	46.1	45.4	52.3	1.2	0.0	17.0	0.0	40.8	0.0	0.0	0.0
Ln Grp LOS	A	D	D	D	A	A	B	A	D	A	A	A
Approach Vol, veh/h		1052			1103			932				0
Approach Delay, s/veh		45.7			10.3			34.0				0.0
Approach LOS		D			B			C				
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	3.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		0.0	42.4	15.9	31.7	16.4	26.0	0.0	47.6			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		5.0	28.0	11.5	27.5	11.9	21.1	5.0	34.0			
Max Allow Headway (MAH), s		0.0	3.9	3.7	4.9	3.7	0.0	0.0	4.9			
Max Q Clear (g_c+I1), s		0.0	38.8	11.5	26.6	12.0	0.0	0.0	6.5			
Green Ext Time (g_e), s		0.0	0.0	0.0	0.5	0.0	0.0	0.0	6.4			
Prob of Phs Call (p_c)		0.00	1.00	0.99	1.00	1.00	1.00	0.00	1.00			
Prob of Max Out (p_x)		0.00	0.00	1.00	1.00	1.00	0.00	0.00	0.03			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3509		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		117		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	0	0	197	0	268	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	0.0	0.0	9.5	0.0	10.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	9.5	0.0	10.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	772	0	0	0	1418	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	21.5	0.0	0.0	0.0	23.5	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	21.5	0.0	0.0	0.0	21.5	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	266	0	227	0	654	0	2	0
V/C Ratio (X)	0.00	0.00	0.87	0.00	0.41	0.00	0.00	0.00
Avail Cap (c_a), veh/h	363	0	228	0	654	0	99	0
Upstream Filter (I)	0.00	0.00	0.62	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	32.8	0.0	16.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	19.5	0.0	0.4	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
Control Delay (d), s/veh	0.0	0.0	52.3	0.0	17.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	3.4	0.0	3.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	1.2	0.0	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	4.6	0.0	3.1	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.43	0.00	0.31	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	0	0	515	0	0	0	906
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	24.6	0.0	0.0	0.0	2.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	24.6	0.0	0.0	0.0	2.0
Lane Grp Cap (c), veh/h	0	1496	0	537	0	848	0	1703
V/C Ratio (X)	0.00	0.00	0.00	0.96	0.00	0.00	0.00	0.53
Avail Cap (c_a), veh/h	0	1496	0	543	0	848	0	1703
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.62
Uniform Delay (d1), s/veh	0.0	0.0	0.0	17.3	0.0	0.0	0.0	1.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	28.8	0.0	0.0	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	46.1	0.0	0.0	0.0	1.2
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	4.9	0.0	0.0	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis
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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	9.1	0.0	0.0	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data































Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	664	0	537	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1849	0	1585	0	1585
Q Serve Time (g_s), s	0.0	36.8	0.0	24.6	0.0	0.0	0.0	4.5
Cycle Q Clear Time (g_c), s	0.0	36.8	0.0	24.6	0.0	0.0	0.0	4.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.5
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.06	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	667	0	558	0	378	0	680
V/C Ratio (X)	0.00	1.00	0.00	0.96	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	667	0	565	0	378	0	680
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	7.0	0.0	17.3	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	33.7	0.0	28.1	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
Control Delay (d), s/veh	0.0	40.8	0.0	45.4	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.2	0.0	5.1	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	6.3	0.0	4.4	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	8.5	0.0	9.4	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.44	0.00	0.30	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	29.5
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
2: Tapo St & E Los Angeles Ave

07/23/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	 
Traffic Volume (veh/h)	534	1026	47	37	624	216	62	82	80	244	46	387
Future Volume (veh/h)	534	1026	47	37	624	216	62	82	80	244	46	387
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	574	1103	51	40	671	232	67	88	86	262	49	416
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	663	1506	70	70	734	254	388	568	499	447	593	807
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.19	0.44	0.44	0.04	0.28	0.28	0.32	0.32	0.32	0.32	0.32	0.32
Unsig. Movement Delay												
Ln Grp Delay, s/veh	29.6	16.4	16.3	37.7	43.7	44.4	18.2	16.5	16.8	27.2	15.8	13.0
Ln Grp LOS	C	B	B	D	D	D	B	B	B	C	B	B
Approach Vol, veh/h		1728			943			241			727	
Approach Delay, s/veh		20.7			43.8			17.1			18.3	
Approach LOS		C			D			B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	2.0	4.0		5.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			25.1	7.1	32.8		25.1	17.0	22.9			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			20.5	5.1	25.9		20.5	12.5	18.5			
Max Allow Headway (MAH), s			5.1	3.7	4.9		4.1	3.7	5.0			
Max Q Clear (g_c+I1), s			6.7	3.4	19.2		17.5	12.5	18.3			
Green Ext Time (g_e), s			1.0	0.0	3.6		0.9	0.0	0.1			
Prob of Phs Call (p_c)			1.00	0.51	1.00		1.00	1.00	1.00			
Prob of Max Out (p_x)			0.00	1.00	0.84		0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			928	1781			1211	3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1791		3459		1870		2591			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1573		160		1585		895			
Left Lane Group Data												
Assigned Mvmt		0	5	3	0	0	1	7	0			
Lane Assignment			L	L (Prot)			L	L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis
2: Tapo St & E Los Angeles Ave

07/23/2020

Lanes in Grp	0	1	1	0	0	1	2	0
Grp Vol (v), veh/h	0	67	40	0	0	262	574	0
Grp Sat Flow (s), veh/h/ln	0	928	1781	0	0	1211	1728	0
Q Serve Time (g_s), s	0.0	3.5	1.4	0.0	0.0	13.0	10.5	0.0
Cycle Q Clear Time (g_c), s	0.0	4.7	1.4	0.0	0.0	15.5	10.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	928	0	0	0	1211	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	20.6	0.0	0.0	0.0	20.6	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	19.4	0.0	0.0	0.0	18.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	3.5	0.0	0.0	0.0	13.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	388	70	0	0	447	663	0
V/C Ratio (X)	0.00	0.17	0.57	0.00	0.00	0.59	0.87	0.00
Avail Cap (c_a), veh/h	0	388	140	0	0	447	665	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	1.00	0.32	0.00
Uniform Delay (d1), s/veh	0.0	17.2	30.7	0.0	0.0	21.6	25.5	0.0
Incr Delay (d2), s/veh	0.0	1.0	7.0	0.0	0.0	5.5	4.1	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.2	37.7	0.0	0.0	27.2	29.6	0.0
1st-Term Q (Q1), veh/ln	0.0	0.7	0.6	0.0	0.0	3.2	3.8	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.1	0.0	0.0	0.7	0.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.8	0.7	0.0	0.0	3.9	4.2	0.0
%ile Storage Ratio (RQ%)	0.00	0.30	0.13	0.00	0.00	1.00	0.41	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	87	0	567	0	49	0	460
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	2.3	0.0	17.2	0.0	1.2	0.0	16.3
Cycle Q Clear Time (g_c), s	0.0	2.3	0.0	17.2	0.0	1.2	0.0	16.3
Lane Grp Cap (c), veh/h	0	564	0	774	0	593	0	503
V/C Ratio (X)	0.00	0.15	0.00	0.73	0.00	0.08	0.00	0.91
Avail Cap (c_a), veh/h	0	564	0	774	0	593	0	506
Upstream Filter (I)	0.00	1.00	0.00	0.32	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.9	0.0	15.2	0.0	15.6	0.0	22.5
Incr Delay (d2), s/veh	0.0	0.6	0.0	1.2	0.0	0.3	0.0	21.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.5	0.0	16.4	0.0	15.8	0.0	43.7
1st-Term Q (Q1), veh/ln	0.0	0.8	0.0	5.5	0.0	0.5	0.0	5.8
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.3	0.0	0.0	0.0	3.0

HCM 6th Signalized Intersection Capacity Analysis 2: Tapo St & E Los Angeles Ave

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.9	0.0	5.7	0.0	0.5	0.0	8.8
%ile Storage Ratio (RQ%)	0.00	0.10	0.00	0.15	0.00	0.13	0.00	0.56
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data













Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	87	0	587	0	416	0	443
Grp Sat Flow (s), veh/h/ln	0	1587	0	1842	0	1585	0	1709
Q Serve Time (g_s), s	0.0	2.6	0.0	17.2	0.0	11.4	0.0	16.3
Cycle Q Clear Time (g_c), s	0.0	2.6	0.0	17.2	0.0	11.4	0.0	16.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.99	0.00	0.09	0.00	1.00	0.00	0.52
Lane Grp Cap (c), veh/h	0	503	0	802	0	807	0	484
V/C Ratio (X)	0.00	0.17	0.00	0.73	0.00	0.52	0.00	0.91
Avail Cap (c_a), veh/h	0	503	0	802	0	807	0	486
Upstream Filter (I)	0.00	1.00	0.00	0.32	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.0	0.0	15.2	0.0	10.6	0.0	22.5
Incr Delay (d2), s/veh	0.0	0.7	0.0	1.1	0.0	2.3	0.0	21.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.8	0.0	16.3	0.0	13.0	0.0	44.4
1st-Term Q (Q1), veh/ln	0.0	0.8	0.0	5.7	0.0	3.0	0.0	5.6
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.3	0.0	0.5	0.0	2.9
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.9	0.0	5.9	0.0	3.5	0.0	8.5
%ile Storage Ratio (RQ%)	0.00	0.10	0.00	0.15	0.00	0.89	0.00	0.55
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	26.0
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
3: E Los Angeles Ave

03/08/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (veh/h)	0	1394	0	0	859	0	0	0	0	0	0	0
Future Volume (veh/h)	0	1394	0	0	859	0	0	0	0	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	1499	0	0	924	0	0	0	0	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	1955	0	0	1955	0	0	561	0	0	561	0
HCM Platoon Ratio	1.00	0.94	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.00	0.52	0.00	0.00	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	14.4	0.0	0.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ln Grp LOS	A	B	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		1499			924			0			0	
Approach Delay, s/veh		14.4			9.3			0.0			0.0	
Approach LOS		B			A							
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			37.5		22.5		37.5		22.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			33.0		18.0		33.0		18.0			
Max Allow Headway (MAH), s			4.9		0.0		4.9		0.0			
Max Q Clear (g_c+I1), s			22.3		0.0		11.7		0.0			
Green Ext Time (g_e), s			7.0		0.0		6.1		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3741		1870		3741		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis
 3: E Los Angeles Ave

03/08/2021

Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	33.0	0.0	18.0	0.0	33.0	0.0	18.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	1499	0	0	0	924	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	20.3	0.0	0.0	0.0	9.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	20.3	0.0	0.0	0.0	9.7	0.0	0.0
Lane Grp Cap (c), veh/h	0	1955	0	561	0	1955	0	561
V/C Ratio (X)	0.00	0.77	0.00	0.00	0.00	0.47	0.00	0.00
Avail Cap (c_a), veh/h	0	1955	0	561	0	1955	0	561
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	11.4	0.0	0.0	0.0	8.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.9	0.0	0.0	0.0	0.8	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
Control Delay (d), s/veh	0.0	14.4	0.0	0.0	0.0	9.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	5.8	0.0	0.0	0.0	2.5	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.8	0.0	0.0	0.0	0.2	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.6	0.0	0.0	0.0	2.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.71	0.00	0.00	0.00	0.55	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data













Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	12.4
HCM 6th LOS	B

HCM 6th Signalized Intersection Capacity Analysis
4: Hlidden Ranch Dr

03/08/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	118	0	0	178	0
Future Volume (veh/h)	0	0	0	0	0	0	0	118	0	0	178	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	126	0	0	189	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	823	0	0	823	0	0	711	0	0	711	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.25	1.00	1.00	1.25	1.00
Prop Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.47	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0	9.8	0.0
Ln Grp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			0			126			189	
Approach Delay, s/veh		0.0			0.0			9.2			9.8	
Approach LOS								A			A	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			23.5		26.5		23.5		26.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			19.0		22.0		19.0		22.0			
Max Allow Headway (MAH), s			5.1		0.0		5.1		0.0			
Max Q Clear (g_c+I1), s			3.9		0.0		5.0		0.0			
Green Ext Time (g_e), s			0.5		0.0		0.8		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1870		1870		1870		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis

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Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	19.0	0.0	22.0	0.0	19.0	0.0	22.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	126	0	0	0	189	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	1870	0	1870	0	1870
Q Serve Time (g_s), s	0.0	1.9	0.0	0.0	0.0	3.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	1.9	0.0	0.0	0.0	3.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	711	0	823	0	711	0	823
V/C Ratio (X)	0.00	0.18	0.00	0.00	0.00	0.27	0.00	0.00
Avail Cap (c_a), veh/h	0	711	0	823	0	711	0	823
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.6	0.0	0.0	0.0	8.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.0	0.0	0.9	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
Control Delay (d), s/veh	0.0	9.2	0.0	0.0	0.0	9.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	0.0	0.0	1.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis
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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.7	0.0	0.0	0.0	1.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A

HCM 6th Signalized Intersection Capacity Analysis

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	421	754	91	122	679	344	50	306	56	117	268	301
Future Volume (veh/h)	421	754	91	122	679	344	50	306	56	117	268	301
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	448	802	97	130	722	366	53	326	60	124	285	320
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	481	1716	765	409	773	391	180	901	164	312	533	476
HCM Platoon Ratio	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.00
Prop Arrive On Green	0.35	0.80	0.80	0.11	0.56	0.56	0.50	0.50	0.50	0.50	0.50	0.30
Unsig. Movement Delay												
Ln Grp Delay, s/veh	36.9	5.5	4.8	16.8	39.7	41.0	32.3	19.2	19.3	25.1	21.6	34.0
Ln Grp LOS	D	A	A	B	D	D	C	B	B	C	C	C
Approach Vol, veh/h		1347			1218			439			729	
Approach Delay, s/veh		15.9			37.8			20.8			27.6	
Approach LOS		B			D			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	1.1	3.0		6.0	1.1	4.0			
Phs Duration (G+Y+Rc), s			31.5	10.5	48.0		31.5	23.5	35.0			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			20.5	8.1	48.1		20.5	24.5	31.7			
Max Allow Headway (MAH), s			5.3	3.8	5.1		5.3	3.8	5.4			
Max Q Clear (g_c+I1), s			23.2	6.2	8.4		17.9	18.2	28.3			
Green Ext Time (g_e), s			0.0	0.1	7.1		1.1	0.8	2.1			
Prob of Phs Call (p_c)			1.00	0.96	1.00		1.00	1.00	1.00			
Prob of Max Out (p_x)			0.00	1.00	0.01		0.00	0.31	1.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			815	1781			997	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3003		3554		1777		2283			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			546		1585		1585		1156			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

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Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	53	130	0	0	124	448	0
Grp Sat Flow (s), veh/h/ln	0	815	1781	0	0	997	1781	0
Q Serve Time (g_s), s	0.0	5.2	4.2	0.0	0.0	8.7	16.2	0.0
Cycle Q Clear Time (g_c), s	0.0	21.2	4.2	0.0	0.0	14.7	16.2	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	815	619	0	0	997	518	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	27.0	30.5	0.0	0.0	27.0	32.5	0.0
Perm LT Serve Time (g_u), s	0.0	11.1	30.5	0.0	0.0	20.9	4.1	0.0
Perm LT Q Serve Time (g_ps), s	0.0	5.2	0.0	0.0	0.0	8.7	4.1	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	180	409	0	0	312	481	0
V/C Ratio (X)	0.00	0.29	0.32	0.00	0.00	0.40	0.93	0.00
Avail Cap (c_a), veh/h	0	180	450	0	0	312	589	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.86	1.00	0.00
Uniform Delay (d1), s/veh	0.0	28.2	16.3	0.0	0.0	21.9	17.4	0.0
Incr Delay (d2), s/veh	0.0	4.1	0.4	0.0	0.0	3.2	19.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	32.3	16.8	0.0	0.0	25.1	36.9	0.0
1st-Term Q (Q1), veh/ln	0.0	0.9	1.6	0.0	0.0	1.6	4.6	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.1	0.0	0.0	0.3	2.6	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.1	1.6	0.0	0.0	1.9	7.2	0.0
%ile Storage Ratio (RQ%)	0.00	0.28	0.28	0.00	0.00	0.33	1.07	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	1
Grp Vol (v), veh/h	0	191	0	802	0	285	0	562
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	5.9	0.0	6.4	0.0	9.9	0.0	26.2
Cycle Q Clear Time (g_c), s	0.0	5.9	0.0	6.4	0.0	9.9	0.0	26.2
Lane Grp Cap (c), veh/h	0	533	0	1716	0	533	0	601
V/C Ratio (X)	0.00	0.36	0.00	0.47	0.00	0.53	0.00	0.93
Avail Cap (c_a), veh/h	0	533	0	1899	0	533	0	626
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.86	0.00	1.00
Uniform Delay (d1), s/veh	0.0	17.3	0.0	5.3	0.0	18.3	0.0	18.8
Incr Delay (d2), s/veh	0.0	1.9	0.0	0.2	0.0	3.3	0.0	20.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.2	0.0	5.5	0.0	21.6	0.0	39.7
1st-Term Q (Q1), veh/ln	0.0	2.2	0.0	1.7	0.0	3.4	0.0	7.3
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.5	0.0	3.5

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.5	0.0	1.7	0.0	3.9	0.0	10.8
%ile Storage Ratio (RQ%)	0.00	0.13	0.00	0.07	0.00	0.06	0.00	0.27
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	195	0	97	0	320	0	526
Grp Sat Flow (s), veh/h/ln	0	1772	0	1585	0	1585	0	1662
Q Serve Time (g_s), s	0.0	6.1	0.0	1.2	0.0	15.9	0.0	26.3
Cycle Q Clear Time (g_c), s	0.0	6.1	0.0	1.2	0.0	15.9	0.0	26.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.31	0.00	1.00	0.00	1.00	0.00	0.70
Lane Grp Cap (c), veh/h	0	532	0	765	0	476	0	563
V/C Ratio (X)	0.00	0.37	0.00	0.13	0.00	0.67	0.00	0.94
Avail Cap (c_a), veh/h	0	532	0	847	0	476	0	585
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.86	0.00	1.00
Uniform Delay (d1), s/veh	0.0	17.3	0.0	4.7	0.0	27.6	0.0	18.8
Incr Delay (d2), s/veh	0.0	1.9	0.0	0.1	0.0	6.4	0.0	22.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.3	0.0	4.8	0.0	34.0	0.0	41.0
1st-Term Q (Q1), veh/ln	0.0	2.2	0.0	0.4	0.0	5.9	0.0	6.8
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.8	0.0	3.5
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.5	0.0	0.4	0.0	6.7	0.0	10.3
%ile Storage Ratio (RQ%)	0.00	0.14	0.00	0.07	0.00	0.11	0.00	0.26
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	25.9
HCM 6th LOS	C

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	511	722	5	21	533	482	15	160	21	551	58	611
Future Volume (veh/h)	511	722	5	21	533	482	15	160	21	551	58	611
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	532	752	5	22	555	398	16	167	22	574	60	636
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	498	1381	616	142	651	291	63	774	345	587	1313	948
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.46	0.78	0.78	0.05	0.37	0.37	0.04	0.44	0.44	0.34	0.74	0.37
Unsig. Movement Delay												
Ln Grp Delay, s/veh	82.4	7.4	6.1	32.6	34.6	195.2	44.8	21.2	20.4	60.8	7.5	8.2
Ln Grp LOS	F	A	A	C	C	F	D	C	C	E	A	A
Approach Vol, veh/h		1289			975			205			1270	
Approach Delay, s/veh		38.3			100.1			23.0			31.9	
Approach LOS		D			F			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	8	7			
Case No		2.0	3.0	1.2	3.0	2.0	3.0	3.0	1.3			
Phs Duration (G+Y+Rc), s		19.8	24.1	6.6	39.5	6.1	37.8	21.0	25.1			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		15.3	18.1	5.0	33.6	5.0	28.4	18.0	20.6			
Max Allow Headway (MAH), s		3.8	5.1	3.8	5.2	3.8	4.1	4.7	3.8			
Max Q Clear (g_c+I1), s		16.8	4.6	2.9	9.4	2.4	6.1	14.9	22.6			
Green Ext Time (g_e), s		0.0	0.8	0.0	5.6	0.0	3.0	1.5	0.0			
Prob of Phs Call (p_c)		1.00	1.00	0.42	1.00	0.33	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.04	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5			7			
Mvmt Sat Flow, veh/h		3456		1781		3456			1781			
Through Movement Data												
Assigned Mvmt			2		4		6	8				
Mvmt Sat Flow, veh/h			3554		3554		3554	3554				
Right-Turn Movement Data												
Assigned Mvmt			12		14		16	18				
Mvmt Sat Flow, veh/h			1585		1585		1585	1585				
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	0	7			
Lane Assignment		L (Prot)		L (Pr/Pm)		L (Prot)			L (Pr/Pm)			

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Lanes in Grp	2	0	1	0	2	0	0	1
Grp Vol (v), veh/h	574	0	22	0	16	0	0	532
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	0	1781
Q Serve Time (g_s), s	14.8	0.0	0.9	0.0	0.4	0.0	0.0	20.6
Cycle Q Clear Time (g_c), s	14.8	0.0	0.9	0.0	0.4	0.0	0.0	20.6
Perm LT Sat Flow (s_l), veh/h/ln	0	0	708	0	0	0	0	589
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	11.9	0.0	0.0	0.0	0.0	7.9
Perm LT Serve Time (g_u), s	0.0	0.0	2.5	0.0	0.0	0.0	0.0	1.5
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.3	0.0	0.0	0.0	0.0	1.5
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	587	0	142	0	63	0	0	498
V/C Ratio (X)	0.98	0.00	0.16	0.00	0.25	0.00	0.00	1.07
Avail Cap (c_a), veh/h	587	0	199	0	192	0	0	498
Upstream Filter (I)	1.00	0.00	0.76	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	29.5	0.0	32.2	0.0	42.8	0.0	0.0	22.5
Incr Delay (d2), s/veh	31.2	0.0	0.4	0.0	2.1	0.0	0.0	59.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	60.8	0.0	32.6	0.0	44.8	0.0	0.0	82.4
1st-Term Q (Q1), veh/ln	4.7	0.0	0.4	0.0	0.2	0.0	0.0	6.6
2nd-Term Q (Q2), veh/ln	2.5	0.0	0.0	0.0	0.0	0.0	0.0	8.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	7.2	0.0	0.4	0.0	0.2	0.0	0.0	14.9
%ile Storage Ratio (RQ%)	1.84	0.00	0.03	0.00	0.03	0.00	0.00	1.26
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	8	0
Lane Assignment		T		T		T	T	
Lanes in Grp	0	2	0	2	0	2	2	0
Grp Vol (v), veh/h	0	167	0	752	0	60	555	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	1777	0
Q Serve Time (g_s), s	0.0	2.6	0.0	7.4	0.0	0.4	12.9	0.0
Cycle Q Clear Time (g_c), s	0.0	2.6	0.0	7.4	0.0	0.4	12.9	0.0
Lane Grp Cap (c), veh/h	0	774	0	1381	0	1313	651	0
V/C Ratio (X)	0.00	0.22	0.00	0.54	0.00	0.05	0.85	0.00
Avail Cap (c_a), veh/h	0	774	0	1381	0	1313	711	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.76	0.00
Uniform Delay (d1), s/veh	0.0	20.6	0.0	6.9	0.0	7.5	27.4	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.4	0.0	0.1	7.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	21.2	0.0	7.4	0.0	7.5	34.6	0.0
1st-Term Q (Q1), veh/ln	0.0	1.0	0.0	1.8	0.0	0.2	4.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.0	0.6	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.1	0.0	1.9	0.0	0.2	4.9	0.0
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.14	0.00	0.02	0.12	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	18	0
Lane Assignment		R		R		R	R	
Lanes in Grp	0	1	0	1	0	1	1	0
Grp Vol (v), veh/h	0	22	0	5	0	636	398	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	1585	0
Q Serve Time (g_s), s	0.0	0.7	0.0	0.1	0.0	4.1	11.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.7	0.0	0.1	0.0	4.1	11.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	20.6	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	345	0	616	0	948	291	0
V/C Ratio (X)	0.00	0.06	0.00	0.01	0.00	0.67	1.37	0.00
Avail Cap (c_a), veh/h	0	345	0	616	0	948	317	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.76	0.00
Uniform Delay (d1), s/veh	0.0	20.1	0.0	6.1	0.0	4.4	12.8	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	0.0	3.8	182.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.4	0.0	6.1	0.0	8.2	195.2	0.0
1st-Term Q (Q1), veh/ln	0.0	0.3	0.0	0.0	0.0	3.1	2.8	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	1.0	14.7	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	0.0	0.0	4.1	17.5	0.0
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.01	0.00	0.52	0.44	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	26.9	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0

Intersection Summary

HCM 6th Ctrl Delay	51.4
HCM 6th LOS	D

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	472	276	221	336	90	320	421	203	104	340	129
Future Volume (veh/h)	190	472	276	221	336	90	320	421	203	104	340	129
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	202	502	294	235	357	96	340	448	216	111	362	137
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	411	535	312	311	724	192	495	864	413	360	705	263
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
Prop Arrive On Green	0.21	0.50	0.50	0.12	0.26	0.26	0.15	0.37	0.37	0.06	0.28	0.28
Unsig. Movement Delay												
Ln Grp Delay, s/veh	19.7	42.5	44.4	31.6	29.0	29.1	21.2	24.9	25.2	21.5	31.0	31.5
Ln Grp LOS	B	D	D	C	C	C	C	C	C	C	C	C
Approach Vol, veh/h		998			688			1004			610	
Approach Delay, s/veh		38.6			30.0			23.8			29.5	
Approach LOS		D			C			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		10.1	37.9	15.3	26.8	18.4	29.6	14.1	27.9			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		6.7	30.1	12.5	22.7	16.5	20.3	12.7	22.5			
Max Allow Headway (MAH), s		3.8	5.4	3.8	5.4	3.8	5.3	3.8	5.3			
Max Q Clear (g_c+I1), s		5.9	15.6	10.7	21.8	13.6	13.0	9.5	12.0			
Green Ext Time (g_e), s		0.0	3.7	0.1	0.5	0.3	1.8	0.2	2.0			
Prob of Phs Call (p_c)		0.94	1.00	1.00	1.00	1.00	1.00	0.99	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.24			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			2332		2160		2533		2777			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1115		1261		944		737			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)				

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	111	0	235	0	340	0	202	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	3.9	0.0	8.7	0.0	11.6	0.0	7.5	0.0
Cycle Q Clear Time (g_c), s	3.9	0.0	8.7	0.0	11.6	0.0	7.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	772	0	682	0	899	0	938	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	25.1	0.0	22.3	0.0	27.1	0.0	22.3	0.0
Perm LT Serve Time (g_u), s	19.7	0.0	2.5	0.0	14.0	0.0	13.5	0.0
Perm LT Q Serve Time (g_ps), s	0.9	0.0	2.5	0.0	7.9	0.0	2.1	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	360	0	311	0	495	0	411	0
V/C Ratio (X)	0.31	0.00	0.75	0.00	0.69	0.00	0.49	0.00
Avail Cap (c_a), veh/h	382	0	346	0	547	0	472	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.66	0.00
Uniform Delay (d1), s/veh	21.1	0.0	23.4	0.0	18.0	0.0	19.1	0.0
Incr Delay (d2), s/veh	0.5	0.0	8.2	0.0	3.2	0.0	0.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	21.5	0.0	31.6	0.0	21.2	0.0	19.7	0.0
1st-Term Q (Q1), veh/ln	1.6	0.0	3.5	0.0	4.5	0.0	2.6	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.7	0.0	0.4	0.0	0.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	1.7	0.0	4.2	0.0	4.9	0.0	2.7	0.0
%ile Storage Ratio (RQ%)	0.35	0.00	0.89	0.00	0.90	0.00	0.57	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	341	0	413	0	252	0	227
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	13.4	0.0	19.7	0.0	10.7	0.0	9.7
Cycle Q Clear Time (g_c), s	0.0	13.4	0.0	19.7	0.0	10.7	0.0	9.7
Lane Grp Cap (c), veh/h	0	659	0	440	0	495	0	463
V/C Ratio (X)	0.00	0.52	0.00	0.94	0.00	0.51	0.00	0.49
Avail Cap (c_a), veh/h	0	659	0	448	0	495	0	463
Upstream Filter (I)	0.00	1.00	0.00	0.66	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	22.1	0.0	22.0	0.0	27.3	0.0	28.2
Incr Delay (d2), s/veh	0.0	2.9	0.0	20.5	0.0	3.7	0.0	0.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	24.9	0.0	42.5	0.0	31.0	0.0	29.0
1st-Term Q (Q1), veh/ln	0.0	5.4	0.0	5.3	0.0	4.5	0.0	4.1
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	2.5	0.0	0.5	0.0	0.1

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.9	0.0	7.8	0.0	5.0	0.0	4.2
%ile Storage Ratio (RQ%)	0.00	0.13	0.00	0.20	0.00	0.38	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	323	0	383	0	247	0	226
Grp Sat Flow (s), veh/h/ln	0	1670	0	1643	0	1700	0	1738
Q Serve Time (g_s), s	0.0	13.6	0.0	19.8	0.0	11.0	0.0	10.0
Cycle Q Clear Time (g_c), s	0.0	13.6	0.0	19.8	0.0	11.0	0.0	10.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.67	0.00	0.77	0.00	0.56	0.00	0.42
Lane Grp Cap (c), veh/h	0	619	0	407	0	473	0	453
V/C Ratio (X)	0.00	0.52	0.00	0.94	0.00	0.52	0.00	0.50
Avail Cap (c_a), veh/h	0	619	0	415	0	473	0	453
Upstream Filter (I)	0.00	1.00	0.00	0.66	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	22.1	0.0	22.1	0.0	27.4	0.0	28.3
Incr Delay (d2), s/veh	0.0	3.1	0.0	22.3	0.0	4.1	0.0	0.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	25.2	0.0	44.4	0.0	31.5	0.0	29.1
1st-Term Q (Q1), veh/ln	0.0	5.2	0.0	4.9	0.0	4.4	0.0	4.1
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	2.5	0.0	0.5	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.7	0.0	7.4	0.0	4.9	0.0	4.2
%ile Storage Ratio (RQ%)	0.00	0.13	0.00	0.19	0.00	0.38	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	30.6
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	835	238	221	753	75	283	388	269	64	197	65
Future Volume (veh/h)	75	835	238	221	753	75	283	388	269	64	197	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	870	248	230	784	78	295	404	176	67	205	68
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	306	848	242	268	1186	118	514	1515	676	423	1126	363
HCM Platoon Ratio	2.00	2.00	1.66	1.66	1.66	1.66	2.00	2.00	1.66	1.66	1.66	1.00
Prop Arrive On Green	0.10	0.62	0.52	0.17	0.60	0.60	0.85	0.85	0.71	0.71	0.71	0.43
Unsig. Movement Delay												
Ln Grp Delay, s/veh	18.0	60.7	63.7	41.7	15.8	15.7	8.7	4.0	8.2	8.8	7.9	11.7
Ln Grp LOS	B	F	F	D	B	B	A	A	A	A	A	B
Approach Vol, veh/h		1196			1092			875			340	
Approach Delay, s/veh		59.3			21.2			6.4			9.6	
Approach LOS		E			C			A			A	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			5.0	1.1	4.0		6.0	1.1	4.0			
Phs Duration (G+Y+Rc), s			40.3	13.1	30.6		40.3	8.7	35.0			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			35.5	8.6	26.1		35.5	5.3	29.4			
Max Allow Headway (MAH), s			4.7	3.8	5.3		5.4	3.8	5.3			
Max Q Clear (g_c+I1), s			16.0	9.2	28.1		6.4	4.4	15.3			
Green Ext Time (g_e), s			4.5	0.0	0.0		2.1	0.0	4.8			
Prob of Phs Call (p_c)			1.00	1.00	1.00		1.00	0.84	1.00			
Prob of Max Out (p_x)			0.00	1.00	1.00		0.00	1.00	0.30			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			1106	1781			834	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		2730		2642		3264			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		777		852		325			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

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Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	295	230	0	0	67	78	0
Grp Sat Flow (s), veh/h/ln	0	1106	1781	0	0	834	1781	0
Q Serve Time (g_s), s	0.0	10.8	7.2	0.0	0.0	2.6	2.4	0.0
Cycle Q Clear Time (g_c), s	0.0	14.0	7.2	0.0	0.0	4.4	2.4	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1106	504	0	0	834	641	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	35.8	28.0	0.0	0.0	35.8	26.1	0.0
Perm LT Serve Time (g_u), s	0.0	32.6	0.0	0.0	0.0	34.0	17.2	0.0
Perm LT Q Serve Time (g_ps), s	0.0	10.8	0.0	0.0	0.0	2.6	1.2	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	514	268	0	0	423	306	0
V/C Ratio (X)	0.00	0.57	0.86	0.00	0.00	0.16	0.26	0.00
Avail Cap (c_a), veh/h	0	514	268	0	0	423	329	0
Upstream Filter (I)	0.00	0.71	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	5.4	18.6	0.0	0.0	8.0	17.5	0.0
Incr Delay (d2), s/veh	0.0	3.3	23.1	0.0	0.0	0.8	0.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.7	41.7	0.0	0.0	8.8	18.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.9	2.5	0.0	0.0	0.4	0.9	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	1.7	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.4	4.2	0.0	0.0	0.5	1.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.24	0.71	0.00	0.00	0.08	0.16	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	404	0	566	0	136	0	427
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	1.8	0.0	26.1	0.0	2.2	0.0	13.3
Cycle Q Clear Time (g_c), s	0.0	1.8	0.0	26.1	0.0	2.2	0.0	13.3
Lane Grp Cap (c), veh/h	0	1515	0	552	0	757	0	645
V/C Ratio (X)	0.00	0.27	0.00	1.03	0.00	0.18	0.00	0.66
Avail Cap (c_a), veh/h	0	1515	0	552	0	757	0	645
Upstream Filter (I)	0.00	0.71	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	3.7	0.0	15.9	0.0	7.4	0.0	13.3
Incr Delay (d2), s/veh	0.0	0.3	0.0	44.8	0.0	0.5	0.0	2.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	4.0	0.0	60.7	0.0	7.9	0.0	15.8
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	4.8	0.0	0.8	0.0	3.7
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	6.9	0.0	0.1	0.0	0.4

HCM 6th Signalized Intersection Capacity Analysis

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.6	0.0	11.7	0.0	0.9	0.0	4.2
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.34	0.00	0.10	0.00	0.08
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	176	0	552	0	137	0	435
Grp Sat Flow (s), veh/h/ln	0	1585	0	1730	0	1717	0	1812
Q Serve Time (g_s), s	0.0	3.3	0.0	26.1	0.0	3.2	0.0	13.3
Cycle Q Clear Time (g_c), s	0.0	3.3	0.0	26.1	0.0	3.2	0.0	13.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.45	0.00	0.50	0.00	0.18
Lane Grp Cap (c), veh/h	0	676	0	538	0	732	0	658
V/C Ratio (X)	0.00	0.26	0.00	1.03	0.00	0.19	0.00	0.66
Avail Cap (c_a), veh/h	0	676	0	538	0	732	0	658
Upstream Filter (I)	0.00	0.71	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	7.5	0.0	17.9	0.0	11.1	0.0	13.3
Incr Delay (d2), s/veh	0.0	0.7	0.0	45.8	0.0	0.6	0.0	2.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.2	0.0	63.7	0.0	11.7	0.0	15.7
1st-Term Q (Q1), veh/ln	0.0	1.0	0.0	5.8	0.0	1.2	0.0	3.8
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	6.8	0.0	0.1	0.0	0.5
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.1	0.0	12.6	0.0	1.3	0.0	4.3
%ile Storage Ratio (RQ%)	0.00	0.19	0.00	0.37	0.00	0.14	0.00	0.08
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	29.4
HCM 6th LOS	C

PHASE 1- Mitigation

HCM 6th Signalized Intersection Capacity Analysis
6: Tapo Canyon Rd & Cochran St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	519	526	8	21	502	375	10	109	13	433	73	449
Future Volume (veh/h)	519	526	8	21	502	375	10	109	13	433	73	449
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	618	626	10	25	598	327	12	130	15	515	87	535
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	767	1220	19	315	795	355	51	851	379	581	735	1497
HCM Platoon Ratio	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.00
Prop Arrive On Green	0.24	0.57	0.57	0.04	0.37	0.37	0.02	0.40	0.40	0.28	0.65	0.39
Unsig. Movement Delay												
Ln Grp Delay, s/veh	24.1	14.0	14.0	22.5	26.4	48.8	41.0	19.3	18.7	43.4	9.0	11.3
Ln Grp LOS	C	B	B	C	C	D	D	B	B	D	A	B
Approach Vol, veh/h		1254			950			157			1137	
Approach Delay, s/veh		19.0			34.0			20.9			25.7	
Approach LOS		B			C			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		2.0	3.0	1.1	4.0	2.0	3.0	1.1	3.0			
Phs Duration (G+Y+Rc), s		17.9	23.7	6.6	31.8	5.7	35.9	16.0	22.4			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		13.5	19.0	5.0	24.5	5.0	27.5	11.5	18.0			
Max Allow Headway (MAH), s		3.8	5.1	3.8	5.2	3.8	4.2	3.8	4.8			
Max Q Clear (g_c+I1), s		13.4	3.9	2.8	10.6	2.3	10.8	13.0	17.8			
Green Ext Time (g_e), s		0.0	0.6	0.0	3.3	0.0	2.5	0.0	0.1			
Prob of Phs Call (p_c)		1.00	1.00	0.43	1.00	0.23	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.18	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		3456		1781		3456		3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3580		1870		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		57		2790		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Prot)		L (Pr/Pm)		L (Prot)		L (Pr/Pm)				

HCM 6th Signalized Intersection Capacity Analysis
6: Tapo Canyon Rd & Cochran St

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Lanes in Grp	2	0	1	0	2	0	2	0
Grp Vol (v), veh/h	515	0	25	0	12	0	618	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	1728	0
Q Serve Time (g_s), s	11.4	0.0	0.8	0.0	0.3	0.0	11.0	0.0
Cycle Q Clear Time (g_c), s	11.4	0.0	0.8	0.0	0.3	0.0	11.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	792	0	0	0	586	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	17.9	0.0	0.0	0.0	19.9	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	17.9	0.0	0.0	0.0	6.2	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	6.2	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	581	0	315	0	51	0	767	0
V/C Ratio (X)	0.89	0.00	0.08	0.00	0.24	0.00	0.81	0.00
Avail Cap (c_a), veh/h	583	0	379	0	216	0	767	0
Upstream Filter (I)	1.00	0.00	0.79	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	28.1	0.0	22.4	0.0	38.6	0.0	17.8	0.0
Incr Delay (d2), s/veh	15.3	0.0	0.1	0.0	2.4	0.0	6.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	43.4	0.0	22.5	0.0	41.0	0.0	24.1	0.0
1st-Term Q (Q1), veh/ln	4.0	0.0	0.3	0.0	0.1	0.0	3.4	0.0
2nd-Term Q (Q2), veh/ln	1.2	0.0	0.0	0.0	0.0	0.0	0.7	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	5.2	0.0	0.3	0.0	0.1	0.0	4.1	0.0
%ile Storage Ratio (RQ%)	1.33	0.00	0.03	0.00	0.02	0.00	0.35	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	1	0	2
Grp Vol (v), veh/h	0	130	0	311	0	87	0	598
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	1.9	0.0	8.6	0.0	1.4	0.0	11.7
Cycle Q Clear Time (g_c), s	0.0	1.9	0.0	8.6	0.0	1.4	0.0	11.7
Lane Grp Cap (c), veh/h	0	851	0	606	0	735	0	795
V/C Ratio (X)	0.00	0.15	0.00	0.51	0.00	0.12	0.00	0.75
Avail Cap (c_a), veh/h	0	851	0	606	0	735	0	800
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.79
Uniform Delay (d1), s/veh	0.0	18.9	0.0	13.3	0.0	8.7	0.0	23.2
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.7	0.0	0.3	0.0	3.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.3	0.0	14.0	0.0	9.0	0.0	26.4
1st-Term Q (Q1), veh/ln	0.0	0.7	0.0	2.7	0.0	0.5	0.0	4.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.4

HCM 6th Signalized Intersection Capacity Analysis

6: Tapo Canyon Rd & Cochran St

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.8	0.0	2.8	0.0	0.6	0.0	4.4
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.11	0.00	0.07	0.00	0.11
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	2	0	1
Grp Vol (v), veh/h	0	15	0	325	0	535	0	327
Grp Sat Flow (s), veh/h/ln	0	1585	0	1860	0	1395	0	1585
Q Serve Time (g_s), s	0.0	0.5	0.0	8.6	0.0	8.8	0.0	15.8
Cycle Q Clear Time (g_c), s	0.0	0.5	0.0	8.6	0.0	8.8	0.0	15.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1394.8	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	11.5	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.03	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	379	0	634	0	1497	0	355
V/C Ratio (X)	0.00	0.04	0.00	0.51	0.00	0.36	0.00	0.92
Avail Cap (c_a), veh/h	0	379	0	634	0	1497	0	357
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.79
Uniform Delay (d1), s/veh	0.0	18.5	0.0	13.3	0.0	10.6	0.0	24.5
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.7	0.0	0.7	0.0	24.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.7	0.0	14.0	0.0	11.3	0.0	48.8
1st-Term Q (Q1), veh/ln	0.0	0.2	0.0	2.9	0.0	2.5	0.0	4.6
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.1	0.0	2.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	3.0	0.0	2.6	0.0	7.0
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.11	0.00	0.33	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	511	722	5	21	533	482	15	160	21	551	58	611
Future Volume (veh/h)	511	722	5	21	533	482	15	160	21	551	58	611
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	532	752	5	22	555	398	16	167	22	574	60	324
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	540	1176	8	133	685	563	65	936	417	562	762	1136
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.31	0.65	0.65	0.05	0.39	0.39	0.04	0.53	0.53	0.32	0.81	0.41
Unsig. Movement Delay												
Ln Grp Delay, s/veh	62.2	13.6	13.5	28.9	27.5	8.6	39.9	14.8	14.3	70.7	4.7	5.4
Ln Grp LOS	E	B	B	C	C	A	D	B	B	F	A	A
Approach Vol, veh/h		1289			975			205			958	
Approach Delay, s/veh		33.6			19.8			16.7			44.5	
Approach LOS		C			B			B			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	8	7			
Case No		2.0	3.0	1.2	4.0	2.0	3.0	3.0	2.0			
Phs Duration (G+Y+Rc), s		17.5	25.6	6.4	30.5	6.0	37.1	19.9	17.0			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		13.0	18.5	5.0	25.5	5.0	26.5	18.0	12.5			
Max Allow Headway (MAH), s		3.8	5.1	3.8	5.2	3.8	4.2	4.7	3.8			
Max Q Clear (g_c+I1), s		15.0	4.0	2.8	12.0	2.4	5.4	13.2	14.2			
Green Ext Time (g_e), s		0.0	0.8	0.0	4.0	0.0	1.6	2.3	0.0			
Prob of Phs Call (p_c)		1.00	1.00	0.39	1.00	0.30	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.26	1.00	0.00	0.98	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5				7		
Mvmt Sat Flow, veh/h		3456		1781		3456				3456		
Through Movement Data												
Assigned Mvmt			2		4		6	8				
Mvmt Sat Flow, veh/h			3554		3619		1870	3554				
Right-Turn Movement Data												
Assigned Mvmt			12		14		16	18				
Mvmt Sat Flow, veh/h			1585		24		2790	1585				
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	0	7			
Lane Assignment		L (Prot)		L (Pr/Pm)		L (Prot)			L (Prot)			

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Lanes in Grp	2	0	1	0	2	0	0	2
Grp Vol (v), veh/h	574	0	22	0	16	0	0	532
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	0	1728
Q Serve Time (g_s), s	13.0	0.0	0.8	0.0	0.4	0.0	0.0	12.2
Cycle Q Clear Time (g_c), s	13.0	0.0	0.8	0.0	0.4	0.0	0.0	12.2
Perm LT Sat Flow (s_l), veh/h/ln	0	0	708	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	562	0	133	0	65	0	0	540
V/C Ratio (X)	1.02	0.00	0.17	0.00	0.25	0.00	0.00	0.99
Avail Cap (c_a), veh/h	562	0	201	0	216	0	0	540
Upstream Filter (I)	1.00	0.00	0.76	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	27.0	0.0	28.5	0.0	38.0	0.0	0.0	27.4
Incr Delay (d2), s/veh	43.7	0.0	0.4	0.0	2.0	0.0	0.0	34.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	70.7	0.0	28.9	0.0	39.9	0.0	0.0	62.2
1st-Term Q (Q1), veh/ln	4.1	0.0	0.3	0.0	0.1	0.0	0.0	3.9
2nd-Term Q (Q2), veh/ln	3.4	0.0	0.0	0.0	0.0	0.0	0.0	2.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	7.5	0.0	0.4	0.0	0.2	0.0	0.0	6.5
%ile Storage Ratio (RQ%)	1.91	0.00	0.03	0.00	0.03	0.00	0.00	0.55
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	8	0
Lane Assignment		T		T		T	T	
Lanes in Grp	0	2	0	1	0	1	2	0
Grp Vol (v), veh/h	0	167	0	369	0	60	555	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	1777	0
Q Serve Time (g_s), s	0.0	2.0	0.0	10.0	0.0	0.5	11.2	0.0
Cycle Q Clear Time (g_c), s	0.0	2.0	0.0	10.0	0.0	0.5	11.2	0.0
Lane Grp Cap (c), veh/h	0	936	0	577	0	762	685	0
V/C Ratio (X)	0.00	0.18	0.00	0.64	0.00	0.08	0.81	0.00
Avail Cap (c_a), veh/h	0	936	0	577	0	762	800	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.76	0.00
Uniform Delay (d1), s/veh	0.0	14.4	0.0	11.2	0.0	4.4	23.3	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	2.4	0.0	0.2	4.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.8	0.0	13.6	0.0	4.7	27.5	0.0
1st-Term Q (Q1), veh/ln	0.0	0.7	0.0	2.6	0.0	0.2	3.6	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.4	0.0	0.0	0.4	0.0

HCM 6th Signalized Intersection Capacity Analysis

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.8	0.0	3.0	0.0	0.2	4.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.22	0.00	0.03	0.10	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	18	0
Lane Assignment		R		T+R		R	R	
Lanes in Grp	0	1	0	1	0	2	1	0
Grp Vol (v), veh/h	0	22	0	388	0	324	398	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1866	0	1395	1585	0
Q Serve Time (g_s), s	0.0	0.5	0.0	10.0	0.0	3.4	9.8	0.0
Cycle Q Clear Time (g_c), s	0.0	0.5	0.0	10.0	0.0	3.4	9.8	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	1585.1	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.01	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	417	0	606	0	1136	563	0
V/C Ratio (X)	0.00	0.05	0.00	0.64	0.00	0.29	0.71	0.00
Avail Cap (c_a), veh/h	0	417	0	606	0	1136	614	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.76	0.00
Uniform Delay (d1), s/veh	0.0	14.1	0.0	11.2	0.0	4.8	6.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	2.3	0.0	0.6	2.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.3	0.0	13.5	0.0	5.4	8.6	0.0
1st-Term Q (Q1), veh/ln	0.0	0.2	0.0	2.7	0.0	1.8	2.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.4	0.0	0.1	0.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	3.1	0.0	1.9	2.7	0.0
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.22	0.00	0.24	0.07	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	31.7
HCM 6th LOS	C

PHASE 2

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

07/23/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	241	419	36	195	890	328	14	297	386	394	403	427
Future Volume (veh/h)	241	419	36	195	890	328	14	297	386	394	403	427
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	287	499	43	232	1060	271	17	354	341	469	480	389
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	300	1078	93	262	1082	782	209	620	277	470	1227	547
HCM Platoon Ratio	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.00
Prop Arrive On Green	0.28	0.54	0.54	0.24	0.51	0.51	0.03	0.29	0.29	0.31	0.57	0.35
Unsig. Movement Delay												
Ln Grp Delay, s/veh	79.9	19.9	20.0	50.7	43.5	11.9	35.9	39.3	171.0	69.2	18.1	38.9
Ln Grp LOS	E	B	B	D	D	B	D	D	F	E	B	D
Approach Vol, veh/h		829			1563			712			1338	
Approach Delay, s/veh		40.7			39.1			102.3			42.0	
Approach LOS		D			D			F			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	3.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		25.3	23.7	20.7	40.3	6.5	42.5	23.0	38.0			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		20.8	19.2	23.9	28.1	5.0	35.0	18.5	33.5			
Max Allow Headway (MAH), s		3.7	4.4	3.7	4.9	3.7	4.5	3.7	4.7			
Max Q Clear (g_c+I1), s		22.8	21.2	15.8	12.2	2.9	25.4	19.4	34.1			
Green Ext Time (g_e), s		0.0	0.0	0.4	2.6	0.0	3.0	0.0	0.0			
Prob of Phs Call (p_c)		1.00	1.00	1.00	1.00	0.41	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	0.04	0.05	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3311		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		285		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	469	0	232	0	17	0	287	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	20.8	0.0	13.8	0.0	0.9	0.0	17.4	0.0
Cycle Q Clear Time (g_c), s	20.8	0.0	13.8	0.0	0.9	0.0	17.4	0.0
Perm LT Sat Flow (s_l), veh/h/ln	750	0	0	0	637	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	21.2	0.0	0.0	0.0	19.2	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	9.9	0.0	0.0	0.0	19.2	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	470	0	262	0	209	0	300	0
V/C Ratio (X)	1.00	0.00	0.89	0.00	0.08	0.00	0.96	0.00
Avail Cap (c_a), veh/h	470	0	387	0	258	0	300	0
Upstream Filter (I)	1.00	0.00	0.61	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	28.0	0.0	40.7	0.0	35.7	0.0	39.3	0.0
Incr Delay (d2), s/veh	41.2	0.0	10.1	0.0	0.2	0.0	40.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	69.2	0.0	50.7	0.0	35.9	0.0	79.9	0.0
1st-Term Q (Q1), veh/ln	8.3	0.0	5.2	0.0	0.4	0.0	6.3	0.0
2nd-Term Q (Q2), veh/ln	5.4	0.0	0.7	0.0	0.0	0.0	3.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	13.7	0.0	6.0	0.0	0.4	0.0	9.7	0.0
%ile Storage Ratio (RQ%)	1.02	0.00	0.56	0.00	0.04	0.00	0.85	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	354	0	267	0	480	0	1060
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	9.3	0.0	10.1	0.0	8.2	0.0	32.1
Cycle Q Clear Time (g_c), s	0.0	9.3	0.0	10.1	0.0	8.2	0.0	32.1
Lane Grp Cap (c), veh/h	0	620	0	579	0	1227	0	1082
V/C Ratio (X)	0.00	0.57	0.00	0.46	0.00	0.39	0.00	0.98
Avail Cap (c_a), veh/h	0	620	0	579	0	1227	0	1082
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.61
Uniform Delay (d1), s/veh	0.0	35.6	0.0	19.4	0.0	17.1	0.0	26.9
Incr Delay (d2), s/veh	0.0	3.8	0.0	0.6	0.0	0.9	0.0	16.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	39.3	0.0	19.9	0.0	18.1	0.0	43.5
1st-Term Q (Q1), veh/ln	0.0	3.6	0.0	3.5	0.0	2.8	0.0	9.6
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.1	0.0	0.2	0.0	2.5

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.9	0.0	3.5	0.0	3.0	0.0	12.1
%ile Storage Ratio (RQ%)	0.00	0.38	0.00	0.11	0.00	1.00	0.00	0.32
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	341	0	275	0	389	0	271
Grp Sat Flow (s), veh/h/ln	0	1585	0	1819	0	1585	0	1585
Q Serve Time (g_s), s	0.0	19.2	0.0	10.2	0.0	23.4	0.0	9.5
Cycle Q Clear Time (g_c), s	0.0	19.2	0.0	10.2	0.0	23.4	0.0	9.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.8
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.16	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	277	0	592	0	547	0	782
V/C Ratio (X)	0.00	1.23	0.00	0.46	0.00	0.71	0.00	0.35
Avail Cap (c_a), veh/h	0	277	0	592	0	547	0	782
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.61
Uniform Delay (d1), s/veh	0.0	39.1	0.0	19.4	0.0	31.2	0.0	11.7
Incr Delay (d2), s/veh	0.0	132.0	0.0	0.6	0.0	7.6	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	171.0	0.0	20.0	0.0	38.9	0.0	11.9
1st-Term Q (Q1), veh/ln	0.0	6.1	0.0	3.6	0.0	8.5	0.0	2.6
2nd-Term Q (Q2), veh/ln	0.0	10.1	0.0	0.1	0.0	1.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	16.3	0.0	3.6	0.0	9.6	0.0	2.6
%ile Storage Ratio (RQ%)	0.00	2.76	0.00	0.12	0.00	0.72	0.00	0.42
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	16.1	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	50.4
HCM 6th LOS	D

HCM 6th Signalized Intersection Capacity Analysis
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↔		↔	↕↔		↔	↕↔		↔	↕	↔
Traffic Volume (veh/h)	0	632	63	70	1044	0	39	0	52	0	0	0
Future Volume (veh/h)	0	632	63	70	1044	0	39	0	52	0	0	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	702	70	78	1160	0	43	0	58	0	0	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	3	976	97	101	1409	0	995	927	827	65	976	762
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.00	0.40	0.40	0.06	0.40	0.00	0.52	0.00	0.52	0.00	0.00	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	30.3	30.3	63.1	31.2	0.0	13.0	0.0	13.2	0.0	0.0	0.0
Ln Grp LOS	A	C	C	E	C	A	B	A	B	A	A	A
Approach Vol, veh/h		772			1238			101			0	
Approach Delay, s/veh		30.3			33.2			13.1			0.0	
Approach LOS		C			C			B				
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	2.0	4.0		5.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			61.9	10.7	37.4		61.9	0.0	48.1			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			22.8	16.5	57.0		22.8	5.0	68.5			
Max Allow Headway (MAH), s			4.6	3.7	4.9		0.0	0.0	4.9			
Max Q Clear (g_c+I1), s			4.0	6.8	22.0		0.0	0.0	34.2			
Green Ext Time (g_e), s			0.3	0.1	4.8		0.0	0.0	9.4			
Prob of Phs Call (p_c)			1.00	0.91	1.00		1.00	0.00	1.00			
Prob of Max Out (p_x)			0.00	0.00	0.00		0.00	0.00	0.04			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			1781	1781			1345	3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1777		3263		1870		3647			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		325		1585		0			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		L	L (Prot)			L	L (Prot)					

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Lanes in Grp	0	1	1	0	0	1	2	0
Grp Vol (v), veh/h	0	43	78	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1781	1781	0	0	1345	1728	0
Q Serve Time (g_s), s	0.0	1.3	4.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	1.3	4.8	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1781	0	0	0	1345	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	57.4	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	57.4	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	995	101	0	0	65	3	0
V/C Ratio (X)	0.00	0.04	0.78	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	995	267	0	0	65	157	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	12.9	51.2	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	11.9	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
Control Delay (d), s/veh	0.0	13.0	63.1	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.5	2.1	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.5	2.4	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.20	0.43	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	2
Grp Vol (v), veh/h	0	0	0	382	0	0	0	1160
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	19.9	0.0	0.0	0.0	32.2
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	19.9	0.0	0.0	0.0	32.2
Lane Grp Cap (c), veh/h	0	927	0	531	0	976	0	1409
V/C Ratio (X)	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.82
Avail Cap (c_a), veh/h	0	927	0	921	0	976	0	2213
Upstream Filter (I)	0.00	0.00	0.00	0.57	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	29.2	0.0	0.0	0.0	29.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.1	0.0	0.0	0.0	1.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	30.3	0.0	0.0	0.0	31.2
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	7.3	0.0	0.0	0.0	12.8
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.3

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	7.5	0.0	0.0	0.0	13.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.84
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		
Lanes in Grp	0	1	0	1	0	1	0	0
Grp Vol (v), veh/h	0	58	0	390	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1812	0	1585	0	0
Q Serve Time (g_s), s	0.0	2.0	0.0	20.0	0.0	4.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	2.0	0.0	20.0	0.0	4.5	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	-4.5	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.18	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	827	0	542	0	762	0	0
V/C Ratio (X)	0.00	0.07	0.00	0.72	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	827	0	939	0	762	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.57	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	13.1	0.0	29.2	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	1.0	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
Control Delay (d), s/veh	0.0	13.2	0.0	30.3	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.7	0.0	7.5	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.7	0.0	7.6	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.08	0.00	0.20	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	31.2
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (veh/h)	0	827	0	0	1198	0	0	0	0	0	0	0
Future Volume (veh/h)	0	827	0	0	1198	0	0	0	0	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	929	0	0	1346	0	0	0	0	0	0	0
Peak Hour Factor	0.92	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	2065	0	0	2065	0	0	556	0	0	556	0
HCM Platoon Ratio	1.00	0.90	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.00	0.52	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	11.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ln Grp LOS	A	B	A	A	B	A	A	A	A	A	A	A
Approach Vol, veh/h		929			1346			0			0	
Approach Delay, s/veh		11.0			13.0			0.0			0.0	
Approach LOS		B			B							
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			47.5		26.5		47.5		26.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			43.0		22.0		43.0		22.0			
Max Allow Headway (MAH), s			4.9		0.0		4.9		0.0			
Max Q Clear (g_c+I1), s			14.1		0.0		21.6		0.0			
Green Ext Time (g_e), s			6.7		0.0		9.7		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3741		1870		3741		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis

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Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	43.0	0.0	22.0	0.0	43.0	0.0	22.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	929	0	0	0	1346	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	12.1	0.0	0.0	0.0	19.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	12.1	0.0	0.0	0.0	19.6	0.0	0.0
Lane Grp Cap (c), veh/h	0	2065	0	556	0	2065	0	556
V/C Ratio (X)	0.00	0.45	0.00	0.00	0.00	0.65	0.00	0.00
Avail Cap (c_a), veh/h	0	2065	0	556	0	2065	0	556
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.3	0.0	0.0	0.0	11.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.0	0.0	1.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.0	0.0	0.0	0.0	13.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.8	0.0	0.0	0.0	6.1	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.5	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis
 3: E Los Angeles Ave

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.0	0.0	0.0	0.0	6.5	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.03	0.00	0.00	0.00	1.89	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data













Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	12.1
HCM 6th LOS	B

HCM 6th Signalized Intersection Capacity Analysis
4: Hlidden Ranch Dr

03/08/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	247	0	0	84	0
Future Volume (veh/h)	0	0	0	0	0	0	0	247	0	0	84	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	287	0	0	98	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	840	0	0	840	0	0	687	0	0	687	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.37	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.1	0.0	0.0	10.8	0.0
Ln Grp LOS	A	A	A	A	A	A	A	B	A	A	B	A
Approach Vol, veh/h		0			0			287			98	
Approach Delay, s/veh		0.0			0.0			13.1			10.8	
Approach LOS								B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			22.5		26.5		22.5		26.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			18.0		22.0		18.0		22.0			
Max Allow Headway (MAH), s			5.1		0.0		5.1		0.0			
Max Q Clear (g_c+I1), s			7.5		0.0		3.7		0.0			
Green Ext Time (g_e), s			1.1		0.0		0.3		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1870		1870		1870		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis

4: Hidden Ranch Dr

03/08/2021

Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	18.0	0.0	22.0	0.0	18.0	0.0	22.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	287	0	0	0	98	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	1870	0	1870	0	1870
Q Serve Time (g_s), s	0.0	5.5	0.0	0.0	0.0	1.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.5	0.0	0.0	0.0	1.7	0.0	0.0
Lane Grp Cap (c), veh/h	0	687	0	840	0	687	0	840
V/C Ratio (X)	0.00	0.42	0.00	0.00	0.00	0.14	0.00	0.00
Avail Cap (c_a), veh/h	0	687	0	840	0	687	0	840
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	11.2	0.0	0.0	0.0	10.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.9	0.0	0.0	0.0	0.4	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
Control Delay (d), s/veh	0.0	13.1	0.0	0.0	0.0	10.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.8	0.0	0.0	0.0	0.6	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.1	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

4: Hidden Ranch Dr

03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.2	0.0	0.0	0.0	0.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.56	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

HCM 6th Signalized Intersection Capacity Analysis
5: Sequoia Ave & Cochran St

07/23/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	286	566	47	86	772	123	88	436	48	102	310	361
Future Volume (veh/h)	286	566	47	86	772	123	88	436	48	102	310	361
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	397	786	65	119	1072	171	122	606	67	142	431	362
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	388	1483	661	371	1063	474	211	1282	141	298	729	610
HCM Platoon Ratio	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.00
Prop Arrive On Green	0.30	0.69	0.69	0.10	0.50	0.50	0.66	0.66	0.66	0.66	0.66	0.40
Unsig. Movement Delay												
Ln Grp Delay, s/veh	79.4	12.0	10.1	23.4	57.4	21.7	38.2	15.3	15.3	23.3	16.5	28.8
Ln Grp LOS	F	B	B	C	F	C	D	B	B	C	B	C
Approach Vol, veh/h		1248			1362			795			935	
Approach Delay, s/veh		33.4			50.0			18.8			22.5	
Approach LOS		C			D			B			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	1.1	3.0		6.0	1.1	3.0			
Phs Duration (G+Y+Rc), s			48.2	11.4	50.4		48.2	24.4	37.4			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			43.7	8.9	43.9		43.7	19.9	32.9			
Max Allow Headway (MAH), s			5.1	3.7	4.8		5.2	3.7	4.8			
Max Q Clear (g_c+I1), s			40.3	7.0	13.8		26.9	21.9	34.9			
Green Ext Time (g_e), s			1.5	0.0	5.7		5.3	0.0	0.0			
Prob of Phs Call (p_c)			1.00	0.97	1.00		1.00	1.00	1.00			
Prob of Max Out (p_x)			0.00	1.00	0.01		0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			684	1781			765	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3227		3554		1836		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			356		1585		1535		1585			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

HCM 6th Signalized Intersection Capacity Analysis

5: Sequoia Ave & Cochran St

07/23/2020

Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	122	119	0	0	142	397	0
Grp Sat Flow (s), veh/h/ln	0	684	1781	0	0	765	1781	0
Q Serve Time (g_s), s	0.0	18.0	5.0	0.0	0.0	14.6	19.9	0.0
Cycle Q Clear Time (g_c), s	0.0	38.3	5.0	0.0	0.0	24.9	19.9	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	684	648	0	0	765	447	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	43.7	32.9	0.0	0.0	43.7	34.9	0.0
Perm LT Serve Time (g_u), s	0.0	23.4	32.9	0.0	0.0	33.5	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	18.0	0.0	0.0	0.0	14.6	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	211	371	0	0	298	388	0
V/C Ratio (X)	0.00	0.58	0.32	0.00	0.00	0.48	1.02	0.00
Avail Cap (c_a), veh/h	0	211	403	0	0	298	388	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.76	1.00	0.00
Uniform Delay (d1), s/veh	0.0	27.1	22.9	0.0	0.0	19.2	27.5	0.0
Incr Delay (d2), s/veh	0.0	11.0	0.5	0.0	0.0	4.1	52.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	38.2	23.4	0.0	0.0	23.3	79.4	0.0
1st-Term Q (Q1), veh/ln	0.0	2.4	1.9	0.0	0.0	1.9	4.8	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.1	0.0	0.0	0.3	5.6	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.0	2.0	0.0	0.0	2.2	10.4	0.0
%ile Storage Ratio (RQ%)	0.00	0.77	0.34	0.00	0.00	0.38	1.55	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	2
Grp Vol (v), veh/h	0	333	0	786	0	417	0	1072
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	10.2	0.0	11.8	0.0	14.4	0.0	32.9
Cycle Q Clear Time (g_c), s	0.0	10.2	0.0	11.8	0.0	14.4	0.0	32.9
Lane Grp Cap (c), veh/h	0	706	0	1483	0	706	0	1063
V/C Ratio (X)	0.00	0.47	0.00	0.53	0.00	0.59	0.00	1.01
Avail Cap (c_a), veh/h	0	706	0	1483	0	706	0	1063
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.76	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.0	0.0	11.7	0.0	13.7	0.0	27.7
Incr Delay (d2), s/veh	0.0	2.3	0.0	0.4	0.0	2.8	0.0	29.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.3	0.0	12.0	0.0	16.5	0.0	57.4
1st-Term Q (Q1), veh/ln	0.0	3.1	0.0	3.3	0.0	4.0	0.0	10.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.1	0.0	0.5	0.0	4.4

HCM 6th Signalized Intersection Capacity Analysis

5: Sequoia Ave & Cochran St

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.6	0.0	3.4	0.0	4.6	0.0	14.4
%ile Storage Ratio (RQ%)	0.00	0.38	0.00	0.06	0.00	0.10	0.00	0.33
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		R		T+R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	340	0	65	0	376	0	171
Grp Sat Flow (s), veh/h/ln	0	1806	0	1585	0	1594	0	1585
Q Serve Time (g_s), s	0.0	10.2	0.0	1.5	0.0	20.3	0.0	7.3
Cycle Q Clear Time (g_c), s	0.0	10.2	0.0	1.5	0.0	20.3	0.0	7.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.20	0.00	1.00	0.00	0.96	0.00	1.00
Lane Grp Cap (c), veh/h	0	718	0	661	0	633	0	474
V/C Ratio (X)	0.00	0.47	0.00	0.10	0.00	0.59	0.00	0.36
Avail Cap (c_a), veh/h	0	718	0	661	0	633	0	474
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.76	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.0	0.0	10.1	0.0	25.7	0.0	21.2
Incr Delay (d2), s/veh	0.0	2.2	0.0	0.1	0.0	3.1	0.0	0.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.3	0.0	10.1	0.0	28.8	0.0	21.7
1st-Term Q (Q1), veh/ln	0.0	3.2	0.0	0.5	0.0	7.2	0.0	2.4
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.5	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.6	0.0	0.5	0.0	7.7	0.0	2.4
%ile Storage Ratio (RQ%)	0.00	0.39	0.00	0.09	0.00	0.17	0.00	0.41
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	33.6
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
6: Tapo Canyon Rd & Cochran St

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	535	467	81	105	473	368	54	645	65	223	834	437
Future Volume (veh/h)	535	467	81	105	473	368	54	645	65	223	834	437
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	637	556	96	125	563	402	64	768	77	265	993	520
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	634	1486	663	338	649	290	135	917	409	302	1089	974
HCM Platoon Ratio	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66
Prop Arrive On Green	0.51	0.69	0.69	0.12	0.30	0.30	0.06	0.43	0.43	0.14	0.51	0.51
Unsig. Movement Delay												
Ln Grp Delay, s/veh	54.4	11.0	10.2	31.5	44.3	224.8	52.9	38.3	25.3	70.7	38.6	10.8
Ln Grp LOS	F	B	B	C	D	F	D	D	C	E	D	B
Approach Vol, veh/h	1289			1090			909			1778		
Approach Delay, s/veh	32.4			109.4			38.3			35.2		
Approach LOS	C			F			D			D		
Timer:	1 2 3 4 5 6 7 8											
Assigned Phs	1 2 3 4 5 6 7 8											
Case No	2.0 3.0 1.1 3.0 2.0 3.0 1.1 3.0											
Phs Duration (G+Y+Rc), s	14.1 32.9 12.5 50.5 8.8 38.2 38.4 24.6											
Change Period (Y+Rc), s	4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5											
Max Green (Gmax), s	9.6 28.4 9.3 44.7 5.0 33.0 33.9 20.1											
Max Allow Headway (MAH), s	3.8 5.1 3.8 5.1 3.8 4.8 3.8 4.7											
Max Q Clear (g_c+I1), s	10.3 23.2 8.2 9.1 4.0 30.2 35.9 22.1											
Green Ext Time (g_e), s	0.0 2.5 0.0 4.6 0.0 2.1 0.0 0.0											
Prob of Phs Call (p_c)	1.00 1.00 0.98 1.00 0.86 1.00 1.00 1.00											
Prob of Max Out (p_x)	1.00 0.00 1.00 0.00 1.00 0.00 1.00 1.00											
Left-Turn Movement Data												
Assigned Mvmt	1 3 5 7											
Mvmt Sat Flow, veh/h	3456 1781 3456 1781											
Through Movement Data												
Assigned Mvmt	2 4 6 8											
Mvmt Sat Flow, veh/h	3554 3554 3554 3554											
Right-Turn Movement Data												
Assigned Mvmt	12 14 16 18											
Mvmt Sat Flow, veh/h	1585 1585 1585 1585											
Left Lane Group Data												
Assigned Mvmt	1 0 3 0 5 0 7 0											
Lane Assignment	L (Prot) L (Pr/Pm) L (Prot) L (Pr/Pm)											

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Lanes in Grp	2	0	1	0	2	0	1	0
Grp Vol (v), veh/h	265	0	125	0	64	0	637	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	1781	0
Q Serve Time (g_s), s	8.3	0.0	6.2	0.0	2.0	0.0	33.9	0.0
Cycle Q Clear Time (g_c), s	8.3	0.0	6.2	0.0	2.0	0.0	33.9	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	780	0	0	0	582	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	20.1	0.0	0.0	0.0	22.1	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	20.1	0.0	0.0	0.0	3.6	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	302	0	338	0	135	0	634	0
V/C Ratio (X)	0.88	0.00	0.37	0.00	0.47	0.00	1.01	0.00
Avail Cap (c_a), veh/h	302	0	359	0	157	0	634	0
Upstream Filter (I)	1.00	0.00	0.57	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	46.5	0.0	31.1	0.0	50.3	0.0	17.3	0.0
Incr Delay (d2), s/veh	24.2	0.0	0.4	0.0	2.6	0.0	37.1	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	70.7	0.0	31.5	0.0	52.9	0.0	54.4	0.0
1st-Term Q (Q1), veh/ln	3.3	0.0	2.5	0.0	0.8	0.0	9.4	0.0
2nd-Term Q (Q2), veh/ln	1.0	0.0	0.0	0.0	0.0	0.0	6.5	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	4.4	0.0	2.6	0.0	0.9	0.0	15.9	0.0
%ile Storage Ratio (RQ%)	1.11	0.00	0.22	0.00	0.14	0.00	1.34	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	2	0	2
Grp Vol (v), veh/h	0	768	0	556	0	993	0	563
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	21.2	0.0	7.1	0.0	28.2	0.0	16.5
Cycle Q Clear Time (g_c), s	0.0	21.2	0.0	7.1	0.0	28.2	0.0	16.5
Lane Grp Cap (c), veh/h	0	917	0	1486	0	1089	0	649
V/C Ratio (X)	0.00	0.84	0.00	0.37	0.00	0.91	0.00	0.87
Avail Cap (c_a), veh/h	0	917	0	1486	0	1089	0	649
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.57
Uniform Delay (d1), s/veh	0.0	29.4	0.0	10.9	0.0	25.7	0.0	37.1
Incr Delay (d2), s/veh	0.0	9.0	0.0	0.2	0.0	12.9	0.0	7.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	38.3	0.0	11.0	0.0	38.6	0.0	44.3
1st-Term Q (Q1), veh/ln	0.0	7.6	0.0	2.4	0.0	9.4	0.0	6.3
2nd-Term Q (Q2), veh/ln	0.0	1.1	0.0	0.0	0.0	2.0	0.0	0.7

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	8.7	0.0	2.4	0.0	11.4	0.0	6.9
%ile Storage Ratio (RQ%)	0.00	0.55	0.00	0.09	0.00	1.35	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	77	0	96	0	520	0	402
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	3.3	0.0	2.3	0.0	21.6	0.0	20.1
Cycle Q Clear Time (g_c), s	0.0	3.3	0.0	2.3	0.0	21.6	0.0	20.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	33.9	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	409	0	663	0	974	0	290
V/C Ratio (X)	0.00	0.19	0.00	0.14	0.00	0.53	0.00	1.39
Avail Cap (c_a), veh/h	0	409	0	663	0	974	0	290
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.57
Uniform Delay (d1), s/veh	0.0	24.3	0.0	10.1	0.0	8.7	0.0	38.3
Incr Delay (d2), s/veh	0.0	1.0	0.0	0.1	0.0	2.1	0.0	186.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	25.3	0.0	10.2	0.0	10.8	0.0	224.8
1st-Term Q (Q1), veh/ln	0.0	1.2	0.0	0.8	0.0	4.3	0.0	6.8
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.6	0.0	15.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.3	0.0	0.8	0.0	4.8	0.0	21.8
%ile Storage Ratio (RQ%)	0.00	0.21	0.00	0.29	0.00	0.62	0.00	0.54
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.1
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Intersection Summary

HCM 6th Ctrl Delay	51.0
HCM 6th LOS	D

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷		↶	↷		↶	↷	
Traffic Volume (veh/h)	265	351	49	61	314	241	0	131	0	298	148	276
Future Volume (veh/h)	265	351	49	61	314	241	0	131	0	298	148	276
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	315	418	58	73	374	287	0	156	0	355	176	329
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	398	1028	142	394	436	330	349	996	0	578	782	698
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.15	0.33	0.33	0.05	0.23	0.23	0.00	0.28	0.00	0.10	0.44	0.44
Unsig. Movement Delay												
Ln Grp Delay, s/veh	27.3	19.9	20.0	20.6	43.0	46.0	0.0	20.7	0.0	20.0	13.7	17.1
Ln Grp LOS	C	B	B	C	D	D	A	C	A	C	B	B
Approach Vol, veh/h		791			734			156			860	
Approach Delay, s/veh		22.9			42.0			20.7			17.6	
Approach LOS		C			D			C			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		12.0	25.5	8.4	29.1	0.0	37.5	16.0	21.5			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		7.5	20.0	5.5	24.0	5.0	22.5	11.5	18.0			
Max Allow Headway (MAH), s		3.8	5.2	3.8	5.3	0.0	5.5	3.8	5.4			
Max Q Clear (g_c+I1), s		9.5	4.5	4.3	9.8	0.0	13.0	11.6	16.2			
Green Ext Time (g_e), s		0.0	0.7	0.0	2.4	0.0	2.2	0.0	0.8			
Prob of Phs Call (p_c)		1.00	1.00	0.78	1.00	0.00	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.09	0.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3647		3137		1777		1926			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		433		1585		1458			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)				

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	355	0	73	0	0	0	315	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	7.5	0.0	2.3	0.0	0.0	0.0	9.6	0.0
Cycle Q Clear Time (g_c), s	7.5	0.0	2.3	0.0	0.0	0.0	9.6	0.0
Perm LT Sat Flow (s_l), veh/h/ln	1231	0	918	0	894	0	774	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	23.0	0.0	17.0	0.0	21.0	0.0	19.0	0.0
Perm LT Serve Time (g_u), s	18.5	0.0	16.8	0.0	21.0	0.0	2.8	0.0
Perm LT Q Serve Time (g_ps), s	7.6	0.0	0.0	0.0	0.0	0.0	2.8	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	578	0	394	0	349	0	398	0
V/C Ratio (X)	0.61	0.00	0.19	0.00	0.00	0.00	0.79	0.00
Avail Cap (c_a), veh/h	578	0	432	0	465	0	398	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.00	0.00	0.85	0.00
Uniform Delay (d1), s/veh	18.1	0.0	20.4	0.0	0.0	0.0	18.3	0.0
Incr Delay (d2), s/veh	1.9	0.0	0.2	0.0	0.0	0.0	9.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	20.0	0.0	20.6	0.0	0.0	0.0	27.3	0.0
1st-Term Q (Q1), veh/ln	1.2	0.0	0.9	0.0	0.0	0.0	3.6	0.0
2nd-Term Q (Q2), veh/ln	0.3	0.0	0.0	0.0	0.0	0.0	1.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	1.5	0.0	0.9	0.0	0.0	0.0	4.6	0.0
%ile Storage Ratio (RQ%)	0.31	0.00	0.20	0.00	0.00	0.00	0.98	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	156	0	236	0	176	0	345
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	2.5	0.0	7.7	0.0	4.6	0.0	14.0
Cycle Q Clear Time (g_c), s	0.0	2.5	0.0	7.7	0.0	4.6	0.0	14.0
Lane Grp Cap (c), veh/h	0	996	0	582	0	782	0	402
V/C Ratio (X)	0.00	0.16	0.00	0.40	0.00	0.22	0.00	0.86
Avail Cap (c_a), veh/h	0	996	0	582	0	782	0	426
Upstream Filter (I)	0.00	1.00	0.00	0.85	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	20.3	0.0	19.5	0.0	13.0	0.0	27.8
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.4	0.0	0.7	0.0	15.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.7	0.0	19.9	0.0	13.7	0.0	43.0
1st-Term Q (Q1), veh/ln	0.0	1.0	0.0	3.0	0.0	1.7	0.0	5.7
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.1	0.0	1.7

HCM 6th Signalized Intersection Capacity Analysis

7: Tapo St & Cochran St

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.0	0.0	3.1	0.0	1.9	0.0	7.3
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.08	0.00	0.14	0.00	0.11
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment				T+R		T+R		T+R
Lanes in Grp	0	0	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	240	0	329	0	316
Grp Sat Flow (s), veh/h/ln	0	0	0	1792	0	1585	0	1608
Q Serve Time (g_s), s	0.0	0.0	0.0	7.8	0.0	11.0	0.0	14.2
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	7.8	0.0	11.0	0.0	14.2
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.24	0.00	1.00	0.00	0.91
Lane Grp Cap (c), veh/h	0	0	0	587	0	698	0	364
V/C Ratio (X)	0.00	0.00	0.00	0.41	0.00	0.47	0.00	0.87
Avail Cap (c_a), veh/h	0	0	0	587	0	698	0	386
Upstream Filter (I)	0.00	0.00	0.00	0.85	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	19.6	0.0	14.8	0.0	27.9
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	2.3	0.0	18.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	20.0	0.0	17.1	0.0	46.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.1	0.0	3.6	0.0	5.2
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.4	0.0	1.8
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	3.2	0.0	4.1	0.0	7.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.08	0.00	0.31	0.00	0.11
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	26.5
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
8: Sequoia Ave & Cochran St

07/23/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	440	105	266	580	87	185	276	377	112	301	52
Future Volume (veh/h)	39	440	105	266	580	87	185	276	377	112	301	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	629	150	380	829	124	264	394	253	160	430	74
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	304	673	160	430	1142	171	516	1713	764	466	1463	250
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Prop Arrive On Green	0.09	0.47	0.47	0.36	0.74	0.74	0.96	0.96	0.96	0.96	0.96	0.96
Unsig. Movement Delay												
Ln Grp Delay, s/veh	19.6	47.4	48.2	33.2	11.9	11.8	3.5	0.9	1.6	2.8	1.6	1.6
Ln Grp LOS	B	D	D	C	B	B	A	A	A	A	A	A
Approach Vol, veh/h		835			1333			911			664	
Approach Delay, s/veh		45.9			17.9			1.9			1.9	
Approach LOS		D			B			A			A	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			5.0	1.1	4.0		6.0	1.1	4.0			
Phs Duration (G+Y+Rc), s			41.3	18.0	22.5		41.3	8.0	32.5			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			31.2	13.5	18.0		31.2	5.1	26.4			
Max Allow Headway (MAH), s			4.9	3.8	5.3		5.4	3.8	5.3			
Max Q Clear (g_c+I1), s			6.0	14.4	17.9		4.0	3.7	13.5			
Green Ext Time (g_e), s			5.5	0.0	0.0		4.5	0.0	5.1			
Prob of Phs Call (p_c)			1.00	1.00	1.00		1.00	0.69	1.00			
Prob of Max Out (p_x)			0.00	1.00	1.00		0.00	1.00	0.42			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			895	1781			784	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		2847		3035		3100			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		678		519		464			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

HCM 6th Signalized Intersection Capacity Analysis

8: Sequoia Ave & Cochran St

07/23/2020

Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	264	380	0	0	160	56	0
Grp Sat Flow (s), veh/h/ln	0	895	1781	0	0	784	1781	0
Q Serve Time (g_s), s	0.0	3.2	12.4	0.0	0.0	1.4	1.7	0.0
Cycle Q Clear Time (g_c), s	0.0	4.0	12.4	0.0	0.0	2.0	1.7	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	895	693	0	0	784	589	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	36.6	20.0	0.0	0.0	36.6	18.0	0.0
Perm LT Serve Time (g_u), s	0.0	35.8	2.0	0.0	0.0	36.0	16.5	0.0
Perm LT Q Serve Time (g_ps), s	0.0	3.2	2.0	0.0	0.0	1.4	0.1	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	516	430	0	0	466	304	0
V/C Ratio (X)	0.00	0.51	0.88	0.00	0.00	0.34	0.18	0.00
Avail Cap (c_a), veh/h	0	516	430	0	0	466	342	0
Upstream Filter (I)	0.00	0.73	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	0.8	14.1	0.0	0.0	0.8	19.3	0.0
Incr Delay (d2), s/veh	0.0	2.6	19.1	0.0	0.0	2.0	0.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	3.5	33.2	0.0	0.0	2.8	19.6	0.0
1st-Term Q (Q1), veh/ln	0.0	0.2	3.2	0.0	0.0	0.1	0.7	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	2.3	0.0	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.5	5.5	0.0	0.0	0.4	0.7	0.0
%ile Storage Ratio (RQ%)	0.00	0.09	0.92	0.00	0.00	0.06	0.12	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	394	0	392	0	251	0	475
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	0.4	0.0	15.8	0.0	0.5	0.0	11.5
Cycle Q Clear Time (g_c), s	0.0	0.4	0.0	15.8	0.0	0.5	0.0	11.5
Lane Grp Cap (c), veh/h	0	1713	0	420	0	856	0	654
V/C Ratio (X)	0.00	0.23	0.00	0.93	0.00	0.29	0.00	0.73
Avail Cap (c_a), veh/h	0	1713	0	421	0	856	0	654
Upstream Filter (I)	0.00	0.73	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.7	0.0	19.5	0.0	0.7	0.0	7.8
Incr Delay (d2), s/veh	0.0	0.2	0.0	27.9	0.0	0.9	0.0	4.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.9	0.0	47.4	0.0	1.6	0.0	11.9
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	4.2	0.0	0.1	0.0	2.3
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	3.3	0.0	0.2	0.0	0.7

HCM 6th Signalized Intersection Capacity Analysis
8: Sequoia Ave & Cochran St

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	7.5	0.0	0.3	0.0	3.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.22	0.00	0.04	0.00	0.07
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	253	0	387	0	253	0	478
Grp Sat Flow (s), veh/h/ln	0	1585	0	1748	0	1777	0	1787
Q Serve Time (g_s), s	0.0	0.6	0.0	15.9	0.0	0.5	0.0	11.5
Cycle Q Clear Time (g_c), s	0.0	0.6	0.0	15.9	0.0	0.5	0.0	11.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.39	0.00	0.29	0.00	0.26
Lane Grp Cap (c), veh/h	0	764	0	413	0	856	0	658
V/C Ratio (X)	0.00	0.33	0.00	0.94	0.00	0.30	0.00	0.73
Avail Cap (c_a), veh/h	0	764	0	414	0	856	0	658
Upstream Filter (I)	0.00	0.73	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.7	0.0	19.5	0.0	0.7	0.0	7.8
Incr Delay (d2), s/veh	0.0	0.8	0.0	28.7	0.0	0.9	0.0	4.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	1.6	0.0	48.2	0.0	1.6	0.0	11.8
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	4.2	0.0	0.1	0.0	2.3
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	3.3	0.0	0.2	0.0	0.7
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	7.5	0.0	0.4	0.0	3.1
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.22	0.00	0.04	0.00	0.07
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	17.4
HCM 6th LOS	B

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

07/23/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	398	708	7	187	700	417	32	447	407	419	217	331
Future Volume (veh/h)	398	708	7	187	700	417	32	447	407	419	217	331
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	419	745	7	197	737	334	34	471	323	441	228	243
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	420	1145	11	227	743	634	296	654	292	457	1224	546
HCM Platoon Ratio	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.00	1.00	1.00
Prop Arrive On Green	0.39	0.53	0.53	0.21	0.35	0.35	0.05	0.31	0.31	0.19	0.34	0.34
Unsig. Movement Delay												
Ln Grp Delay, s/veh	73.3	22.3	22.2	58.0	61.0	19.5	31.0	39.2	119.4	59.5	23.3	28.0
Ln Grp LOS	E	C	C	E	E	B	C	D	F	E	C	C
Approach Vol, veh/h		1171			1268			828			912	
Approach Delay, s/veh		40.5			49.6			70.1			42.0	
Approach LOS		D			D			E			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	3.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		23.6	22.9	17.2	36.3	7.6	38.9	28.1	25.4			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		19.1	18.4	15.1	29.4	5.0	32.5	23.6	20.9			
Max Allow Headway (MAH), s		3.7	4.5	3.7	4.9	3.7	4.4	3.7	4.6			
Max Q Clear (g_c+I1), s		21.1	20.4	12.7	16.9	3.5	13.9	25.5	22.7			
Green Ext Time (g_e), s		0.0	0.0	0.1	3.4	0.0	2.0	0.0	0.0			
Prob of Phs Call (p_c)		1.00	1.00	1.00	1.00	0.61	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.24	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3607		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt				12		14		16			18	
Mvmt Sat Flow, veh/h				1585		34		1585			1585	
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	441	0	197	0	34	0	419	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	19.1	0.0	10.7	0.0	1.5	0.0	23.5	0.0
Cycle Q Clear Time (g_c), s	19.1	0.0	10.7	0.0	1.5	0.0	23.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	684	0	0	0	922	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	20.4	0.0	0.0	0.0	18.4	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	6.6	0.0	0.0	0.0	18.4	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	457	0	227	0	296	0	420	0
V/C Ratio (X)	0.96	0.00	0.87	0.00	0.11	0.00	1.00	0.00
Avail Cap (c_a), veh/h	457	0	269	0	331	0	420	0
Upstream Filter (I)	1.00	0.00	0.85	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	26.6	0.0	38.6	0.0	30.8	0.0	30.4	0.0
Incr Delay (d2), s/veh	32.9	0.0	19.4	0.0	0.2	0.0	43.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	59.5	0.0	58.0	0.0	31.0	0.0	73.3	0.0
1st-Term Q (Q1), veh/ln	7.7	0.0	4.1	0.0	0.6	0.0	7.5	0.0
2nd-Term Q (Q2), veh/ln	4.2	0.0	1.2	0.0	0.0	0.0	5.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	11.9	0.0	5.3	0.0	0.6	0.0	12.6	0.0
%ile Storage Ratio (RQ%)	0.89	0.00	0.50	0.00	0.06	0.00	1.10	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	471	0	367	0	228	0	737
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	11.8	0.0	14.9	0.0	4.5	0.0	20.7
Cycle Q Clear Time (g_c), s	0.0	11.8	0.0	14.9	0.0	4.5	0.0	20.7
Lane Grp Cap (c), veh/h	0	654	0	564	0	1224	0	743
V/C Ratio (X)	0.00	0.72	0.00	0.65	0.00	0.19	0.00	0.99
Avail Cap (c_a), veh/h	0	654	0	564	0	1224	0	743
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.85
Uniform Delay (d1), s/veh	0.0	32.4	0.0	19.6	0.0	23.0	0.0	32.6
Incr Delay (d2), s/veh	0.0	6.7	0.0	2.6	0.0	0.3	0.0	28.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	39.2	0.0	22.3	0.0	23.3	0.0	61.0
1st-Term Q (Q1), veh/ln	0.0	4.3	0.0	4.6	0.0	1.8	0.0	6.9
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	0.4	0.0	0.1	0.0	2.9

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.9	0.0	5.0	0.0	1.8	0.0	9.8
%ile Storage Ratio (RQ%)	0.00	0.47	0.00	0.16	0.00	0.62	0.00	0.26
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	323	0	385	0	243	0	334
Grp Sat Flow (s), veh/h/ln	0	1585	0	1864	0	1585	0	1585
Q Serve Time (g_s), s	0.0	18.4	0.0	14.9	0.0	11.9	0.0	16.1
Cycle Q Clear Time (g_c), s	0.0	18.4	0.0	14.9	0.0	11.9	0.0	16.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.1
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.02	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	292	0	592	0	546	0	634
V/C Ratio (X)	0.00	1.11	0.00	0.65	0.00	0.45	0.00	0.53
Avail Cap (c_a), veh/h	0	292	0	592	0	546	0	634
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.85
Uniform Delay (d1), s/veh	0.0	34.7	0.0	19.7	0.0	25.4	0.0	18.8
Incr Delay (d2), s/veh	0.0	84.7	0.0	2.5	0.0	2.6	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
Control Delay (d), s/veh	0.0	119.4	0.0	22.2	0.0	28.0	0.0	19.5
1st-Term Q (Q1), veh/ln	0.0	5.6	0.0	4.8	0.0	4.2	0.0	4.4
2nd-Term Q (Q2), veh/ln	0.0	6.9	0.0	0.4	0.0	0.4	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	12.5	0.0	5.2	0.0	4.6	0.0	4.5
%ile Storage Ratio (RQ%)	0.00	2.11	0.00	0.17	0.00	0.34	0.00	0.71
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	7.8	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	49.5
HCM 6th LOS	D

HCM 6th Signalized Intersection Capacity Analysis
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↕		↖	↕		↖	↕		↖	↕	↗
Traffic Volume (veh/h)	0	937	47	37	840	0	103	0	121	0	0	0
Future Volume (veh/h)	0	937	47	37	840	0	103	0	121	0	0	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1008	51	40	903	0	111	0	130	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	3	1210	61	58	1517	0	938	868	774	68	913	707
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.00	0.35	0.35	0.03	0.43	0.00	0.49	0.00	0.49	0.00	0.00	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	33.6	33.6	64.2	23.7	0.0	15.1	0.0	15.6	0.0	0.0	0.0
Ln Grp LOS	A	C	C	E	C	A	B	A	B	A	A	A
Approach Vol, veh/h		1059			943			241			0	
Approach Delay, s/veh		33.6			25.4			15.3			0.0	
Approach LOS		C			C			B				
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	2.0	4.0		5.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			56.3	8.0	41.8		56.3	0.0	49.7			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			27.2	9.5	55.5		27.2	5.0	60.0			
Max Allow Headway (MAH), s			4.6	3.7	4.9		0.0	0.0	4.9			
Max Q Clear (g_c+I1), s			6.8	4.4	30.5		0.0	0.0	22.7			
Green Ext Time (g_e), s			0.9	0.0	6.8		0.0	0.0	6.8			
Prob of Phs Call (p_c)			1.00	0.69	1.00		1.00	0.00	1.00			
Prob of Max Out (p_x)			0.00	0.12	0.10		0.00	0.00	0.01			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			1781	1781			1260	3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1777		3442		1870		3647			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		174		1585		0			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		L	L (Prot)			L	L (Prot)					

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Lanes in Grp	0	1	1	0	0	1	2	0
Grp Vol (v), veh/h	0	111	40	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1781	1781	0	0	1260	1728	0
Q Serve Time (g_s), s	0.0	3.6	2.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.6	2.4	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1781	0	0	0	1260	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	51.8	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	51.8	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	938	58	0	0	68	3	0
V/C Ratio (X)	0.00	0.12	0.69	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	938	160	0	0	68	163	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	14.8	50.7	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	13.5	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
Control Delay (d), s/veh	0.0	15.1	64.2	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.4	1.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.5	1.2	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.57	0.22	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	2
Grp Vol (v), veh/h	0	0	0	520	0	0	0	903
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	28.5	0.0	0.0	0.0	20.7
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	28.5	0.0	0.0	0.0	20.7
Lane Grp Cap (c), veh/h	0	868	0	625	0	913	0	1517
V/C Ratio (X)	0.00	0.00	0.00	0.83	0.00	0.00	0.00	0.60
Avail Cap (c_a), veh/h	0	868	0	930	0	913	0	2012
Upstream Filter (I)	0.00	0.00	0.00	0.49	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	31.5	0.0	0.0	0.0	23.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	33.6	0.0	0.0	0.0	23.7
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	11.4	0.0	0.0	0.0	8.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.1

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	11.8	0.0	0.0	0.0	8.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.52
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data













Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		
Lanes in Grp	0	1	0	1	0	1	0	0
Grp Vol (v), veh/h	0	130	0	539	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	0	1839	0	1585	0	0
Q Serve Time (g_s), s	0.0	4.8	0.0	28.5	0.0	4.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	4.8	0.0	28.5	0.0	4.5	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	-4.5	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.09	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	774	0	647	0	707	0	0
V/C Ratio (X)	0.00	0.17	0.00	0.83	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	774	0	963	0	707	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.49	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	15.1	0.0	31.5	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.0	2.0	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
Control Delay (d), s/veh	0.0	15.6	0.0	33.6	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.7	0.0	11.8	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.4	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.8	0.0	12.2	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.19	0.00	0.32	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	28.2
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
3: E Los Angeles Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (veh/h)	0	1299	0	0	900	0	0	0	0	0	0	0
Future Volume (veh/h)	0	1299	0	0	900	0	0	0	0	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	1397	0	0	968	0	0	0	0	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	2065	0	0	2065	0	0	556	0	0	556	0
HCM Platoon Ratio	1.00	0.92	1.00	1.00	0.93	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.00	0.53	0.00	0.00	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	14.0	0.0	0.0	10.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ln Grp LOS	A	B	A	A	B	A	A	A	A	A	A	A
Approach Vol, veh/h		1397			968			0			0	
Approach Delay, s/veh		14.0			10.7			0.0			0.0	
Approach LOS		B			B							
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			47.5		26.5		47.5		26.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			43.0		22.0		43.0		22.0			
Max Allow Headway (MAH), s			4.9		0.0		4.9		0.0			
Max Q Clear (g_c+I1), s			23.2		0.0		14.4		0.0			
Green Ext Time (g_e), s			9.7		0.0		7.0		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3741		1870		3741		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis
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Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	43.0	0.0	22.0	0.0	43.0	0.0	22.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	1397	0	0	0	968	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	21.2	0.0	0.0	0.0	12.4	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	21.2	0.0	0.0	0.0	12.4	0.0	0.0
Lane Grp Cap (c), veh/h	0	2065	0	556	0	2065	0	556
V/C Ratio (X)	0.00	0.68	0.00	0.00	0.00	0.47	0.00	0.00
Avail Cap (c_a), veh/h	0	2065	0	556	0	2065	0	556
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	12.1	0.0	0.0	0.0	10.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.8	0.0	0.0	0.0	0.8	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
Control Delay (d), s/veh	0.0	14.0	0.0	0.0	0.0	10.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	6.9	0.0	0.0	0.0	3.8	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.2	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis
 3: E Los Angeles Ave

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	7.4	0.0	0.0	0.0	4.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.92	0.00	0.00	0.00	0.81	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	12.6
HCM 6th LOS	B

HCM 6th Signalized Intersection Capacity Analysis

4: Hlidden Ranch Dr

03/08/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	118	0	0	178	0
Future Volume (veh/h)	0	0	0	0	0	0	0	118	0	0	178	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	126	0	0	189	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	823	0	0	823	0	0	711	0	0	711	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.25	1.00	1.00	1.25	1.00
Prop Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.47	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0	9.8	0.0
Ln Grp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			0			126			189	
Approach Delay, s/veh		0.0			0.0			9.2			9.8	
Approach LOS								A			A	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			23.5		26.5		23.5		26.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			19.0		22.0		19.0		22.0			
Max Allow Headway (MAH), s			5.1		0.0		5.1		0.0			
Max Q Clear (g_c+I1), s			3.9		0.0		5.0		0.0			
Green Ext Time (g_e), s			0.5		0.0		0.8		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1870		1870		1870		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis

4: Hidden Ranch Dr

03/08/2021

Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	19.0	0.0	22.0	0.0	19.0	0.0	22.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	126	0	0	0	189	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	1870	0	1870	0	1870
Q Serve Time (g_s), s	0.0	1.9	0.0	0.0	0.0	3.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	1.9	0.0	0.0	0.0	3.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	711	0	823	0	711	0	823
V/C Ratio (X)	0.00	0.18	0.00	0.00	0.00	0.27	0.00	0.00
Avail Cap (c_a), veh/h	0	711	0	823	0	711	0	823
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.6	0.0	0.0	0.0	8.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.0	0.0	0.9	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
Control Delay (d), s/veh	0.0	9.2	0.0	0.0	0.0	9.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	0.0	0.0	1.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

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03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.7	0.0	0.0	0.0	1.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A

HCM 6th Signalized Intersection Capacity Analysis

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↶	↗↗	↶	↶	↗↗		↶	↗↗		↶	↗↗		
Traffic Volume (veh/h)	402	893	91	122	679	152	50	306	56	91	268	282	
Future Volume (veh/h)	402	893	91	122	679	152	50	306	56	91	268	282	
Number	7	4	14	3	8	18	5	2	12	1	6	16	
Initial Q, 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		
Lanes Open During Work Zone													
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	428	950	97	130	722	162	53	326	60	97	285	300	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Opposing Right Turn Influence	Yes			Yes			Yes			Yes			
Cap, veh/h	475	1468	655	326	824	185	250	1038	189	354	614	548	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Prop Arrive On Green	0.20	0.41	0.41	0.07	0.29	0.29	0.35	0.35	0.35	0.35	0.35	0.35	
Unsig. Movement Delay													
Ln Grp Delay, s/veh	32.4	19.5	14.8	19.0	41.4	41.6	29.7	20.5	20.6	25.5	22.4	24.3	
Ln Grp LOS	C	B	B	B	D	D	C	C	C	C	C	C	
Approach Vol, veh/h		1475			1014			439			682		
Approach Delay, s/veh		22.9			38.6			21.7			23.7		
Approach LOS		C			D			C			C		
Timer:		1	2	3	4	5	6	7	8				
Assigned Phs			2	3	4		6	7	8				
Case No			6.0	1.1	3.0		6.0	1.1	4.0				
Phs Duration (G+Y+Rc), s			32.2	10.3	37.6		32.2	20.5	27.4				
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5				
Max Green (Gmax), s			21.0	8.7	37.3		21.0	21.5	24.5				
Max Allow Headway (MAH), s			5.3	3.8	5.1		5.3	3.8	5.3				
Max Q Clear (g_c+I1), s			18.6	6.0	19.1		14.8	15.2	21.1				
Green Ext Time (g_e), s			0.6	0.1	6.9		2.2	0.8	1.8				
Prob of Phs Call (p_c)			1.00	0.94	1.00		1.00	1.00	1.00				
Prob of Max Out (p_x)			0.00	1.00	0.22		0.00	0.30	1.00				
Left-Turn Movement Data													
Assigned Mvmt			5	3			1	7					
Mvmt Sat Flow, veh/h			830	1781			997	1781					
Through Movement Data													
Assigned Mvmt			2		4		6		8				
Mvmt Sat Flow, veh/h			3003		3554		1777		2884				
Right-Turn Movement Data													
Assigned Mvmt			12		14		16		18				
Mvmt Sat Flow, veh/h			546		1585		1585		647				
Left Lane Group Data													
Assigned Mvmt		0	5	3	0	0	1	7	0				
Lane Assignment			LL (Pr/Pm)					LL (Pr/Pm)					

HCM 6th Signalized Intersection Capacity Analysis

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Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	53	130	0	0	97	428	0
Grp Sat Flow (s), veh/h/ln	0	830	1781	0	0	997	1781	0
Q Serve Time (g_s), s	0.0	4.4	4.0	0.0	0.0	6.3	13.2	0.0
Cycle Q Clear Time (g_c), s	0.0	16.6	4.0	0.0	0.0	12.8	13.2	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	830	539	0	0	997	628	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	27.7	22.9	0.0	0.0	27.7	24.9	0.0
Perm LT Serve Time (g_u), s	0.0	15.4	15.9	0.0	0.0	21.2	3.8	0.0
Perm LT Q Serve Time (g_ps), s	0.0	4.4	2.2	0.0	0.0	6.3	3.8	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	250	326	0	0	354	475	0
V/C Ratio (X)	0.00	0.21	0.40	0.00	0.00	0.27	0.90	0.00
Avail Cap (c_a), veh/h	0	250	391	0	0	354	598	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.82	1.00	0.00
Uniform Delay (d1), s/veh	0.0	27.8	18.2	0.0	0.0	23.9	18.0	0.0
Incr Delay (d2), s/veh	0.0	1.9	0.8	0.0	0.0	1.6	14.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	29.7	19.0	0.0	0.0	25.5	32.4	0.0
1st-Term Q (Q1), veh/ln	0.0	0.9	1.6	0.0	0.0	1.4	4.9	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.1	0.0	0.0	0.2	1.9	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.0	1.7	0.0	0.0	1.6	6.8	0.0
%ile Storage Ratio (RQ%)	0.00	0.25	0.28	0.00	0.00	0.27	1.01	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	1
Grp Vol (v), veh/h	0	191	0	950	0	285	0	445
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	6.3	0.0	17.1	0.0	10.0	0.0	19.1
Cycle Q Clear Time (g_c), s	0.0	6.3	0.0	17.1	0.0	10.0	0.0	19.1
Lane Grp Cap (c), veh/h	0	614	0	1468	0	614	0	508
V/C Ratio (X)	0.00	0.31	0.00	0.65	0.00	0.46	0.00	0.88
Avail Cap (c_a), veh/h	0	614	0	1657	0	614	0	544
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.82	0.00	1.00
Uniform Delay (d1), s/veh	0.0	19.2	0.0	18.8	0.0	20.4	0.0	27.2
Incr Delay (d2), s/veh	0.0	1.3	0.0	0.7	0.0	2.1	0.0	14.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.5	0.0	19.5	0.0	22.4	0.0	41.4
1st-Term Q (Q1), veh/ln	0.0	2.5	0.0	6.6	0.0	4.0	0.0	7.7
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.2	0.0	0.4	0.0	2.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.7	0.0	6.7	0.0	4.3	0.0	9.7
%ile Storage Ratio (RQ%)	0.00	0.15	0.00	0.28	0.00	0.07	0.00	0.24
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	195	0	97	0	300	0	439
Grp Sat Flow (s), veh/h/ln	0	1772	0	1585	0	1585	0	1754
Q Serve Time (g_s), s	0.0	6.5	0.0	3.1	0.0	12.2	0.0	19.1
Cycle Q Clear Time (g_c), s	0.0	6.5	0.0	3.1	0.0	12.2	0.0	19.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.31	0.00	1.00	0.00	1.00	0.00	0.37
Lane Grp Cap (c), veh/h	0	613	0	655	0	548	0	501
V/C Ratio (X)	0.00	0.32	0.00	0.15	0.00	0.55	0.00	0.88
Avail Cap (c_a), veh/h	0	613	0	739	0	548	0	537
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.82	0.00	1.00
Uniform Delay (d1), s/veh	0.0	19.2	0.0	14.7	0.0	21.1	0.0	27.2
Incr Delay (d2), s/veh	0.0	1.4	0.0	0.1	0.0	3.2	0.0	14.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.6	0.0	14.8	0.0	24.3	0.0	41.6
1st-Term Q (Q1), veh/ln	0.0	2.5	0.0	1.0	0.0	4.3	0.0	7.6
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.5	0.0	2.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.8	0.0	1.1	0.0	4.8	0.0	9.6
%ile Storage Ratio (RQ%)	0.00	0.15	0.00	0.18	0.00	0.08	0.00	0.24
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

























Intersection Summary

HCM 6th Ctrl Delay	27.3
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	498	684	50	107	498	439	79	920	107	340	704	563
Future Volume (veh/h)	498	684	50	107	498	439	79	920	107	340	704	563
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	519	712	52	111	519	457	82	958	111	354	733	586
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	510	1361	607	300	582	434	144	982	438	380	1760	546
HCM Platoon Ratio	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.00
Prop Arrive On Green	0.48	0.64	0.64	0.11	0.27	0.27	0.07	0.46	0.46	0.18	0.57	0.34
Unsig. Movement Delay												
Ln Grp Delay, s/veh	73.2	14.9	12.7	33.7	52.4	88.9	54.0	52.8	24.2	73.9	18.1	95.5
Ln Grp LOS	F	B	B	C	D	F	D	D	C	E	B	F
Approach Vol, veh/h		1283			1087			1151			1673	
Approach Delay, s/veh		38.4			65.8			50.1			57.0	
Approach LOS		D			E			D			E	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		2.0	3.0	1.1	3.0	2.0	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		16.6	34.9	11.9	46.6	9.1	42.4	36.0	22.5			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		12.1	30.4	9.3	40.2	5.1	37.4	31.5	18.0			
Max Allow Headway (MAH), s		3.8	5.1	3.8	5.2	3.8	4.7	3.8	4.7			
Max Q Clear (g_c+I1), s		13.1	31.0	7.6	14.0	4.5	39.9	33.5	20.0			
Green Ext Time (g_e), s		0.0	0.0	0.0	5.5	0.0	0.0	0.0	0.0			
Prob of Phs Call (p_c)		1.00	1.00	0.97	1.00	0.92	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.02	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		3456		1781		3456		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		5106		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Prot)		L (Pr/Pm)		L (Prot)		L (Prot)				

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Lanes in Grp	2	0	1	0	2	0	1	0
Grp Vol (v), veh/h	354	0	111	0	82	0	519	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	1781	0
Q Serve Time (g_s), s	11.1	0.0	5.6	0.0	2.5	0.0	31.5	0.0
Cycle Q Clear Time (g_c), s	11.1	0.0	5.6	0.0	2.5	0.0	31.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	703	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	380	0	300	0	144	0	510	0
V/C Ratio (X)	0.93	0.00	0.37	0.00	0.57	0.00	1.02	0.00
Avail Cap (c_a), veh/h	380	0	331	0	160	0	510	0
Upstream Filter (I)	1.00	0.00	0.79	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	44.5	0.0	33.1	0.0	50.2	0.0	28.9	0.0
Incr Delay (d2), s/veh	29.4	0.0	0.6	0.0	3.8	0.0	44.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	73.9	0.0	33.7	0.0	54.0	0.0	73.2	0.0
1st-Term Q (Q1), veh/ln	4.4	0.0	2.3	0.0	1.1	0.0	10.9	0.0
2nd-Term Q (Q2), veh/ln	1.6	0.0	0.1	0.0	0.1	0.0	6.3	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	5.9	0.0	2.4	0.0	1.2	0.0	17.2	0.0
%ile Storage Ratio (RQ%)	1.50	0.00	0.20	0.00	0.18	0.00	1.45	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	3	0	2
Grp Vol (v), veh/h	0	958	0	712	0	733	0	519
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1702	0	1777
Q Serve Time (g_s), s	0.0	29.0	0.0	12.0	0.0	8.9	0.0	15.4
Cycle Q Clear Time (g_c), s	0.0	29.0	0.0	12.0	0.0	8.9	0.0	15.4
Lane Grp Cap (c), veh/h	0	982	0	1361	0	1760	0	582
V/C Ratio (X)	0.00	0.98	0.00	0.52	0.00	0.42	0.00	0.89
Avail Cap (c_a), veh/h	0	982	0	1361	0	1760	0	582
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.79
Uniform Delay (d1), s/veh	0.0	29.4	0.0	14.6	0.0	17.3	0.0	39.1
Incr Delay (d2), s/veh	0.0	23.4	0.0	0.4	0.0	0.7	0.0	13.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	52.8	0.0	14.9	0.0	18.1	0.0	52.4
1st-Term Q (Q1), veh/ln	0.0	10.2	0.0	3.8	0.0	3.0	0.0	6.0
2nd-Term Q (Q2), veh/ln	0.0	3.2	0.0	0.1	0.0	0.1	0.0	1.1

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	13.4	0.0	3.9	0.0	3.1	0.0	7.0
%ile Storage Ratio (RQ%)	0.00	0.41	0.00	0.29	0.00	0.36	0.00	0.18
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	111	0	52	0	586	0	457
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	4.7	0.0	1.4	0.0	37.9	0.0	18.0
Cycle Q Clear Time (g_c), s	0.0	4.7	0.0	1.4	0.0	37.9	0.0	18.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.1
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	438	0	607	0	546	0	434
V/C Ratio (X)	0.00	0.25	0.00	0.09	0.00	1.07	0.00	1.05
Avail Cap (c_a), veh/h	0	438	0	607	0	546	0	434
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.79
Uniform Delay (d1), s/veh	0.0	22.8	0.0	12.6	0.0	36.0	0.0	35.6
Incr Delay (d2), s/veh	0.0	1.4	0.0	0.1	0.0	59.5	0.0	53.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	24.2	0.0	12.7	0.0	95.5	0.0	88.9
1st-Term Q (Q1), veh/ln	0.0	1.7	0.0	0.5	0.0	14.3	0.0	11.5
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	9.0	0.0	6.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.9	0.0	0.5	0.0	23.3	0.0	18.0
%ile Storage Ratio (RQ%)	0.00	0.29	0.00	0.18	0.00	2.96	0.00	0.45
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	9.9	0.0	5.8
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3

Intersection Summary

HCM 6th Ctrl Delay	52.7
HCM 6th LOS	D

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	241	472	73	53	336	193	72	267	8	206	136	231
Future Volume (veh/h)	241	472	73	53	336	193	72	267	8	206	136	231
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	256	502	78	56	357	205	77	284	9	219	145	246
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	310	770	119	284	469	264	462	1222	39	563	652	581
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.08	0.25	0.25	0.05	0.21	0.21	0.06	0.35	0.35	0.08	0.37	0.37
Unsig. Movement Delay												
Ln Grp Delay, s/veh	35.0	23.7	23.8	19.0	29.0	30.2	12.5	15.9	15.9	13.0	15.0	17.7
Ln Grp LOS	C	C	C	B	C	C	B	B	B	B	B	B
Approach Vol, veh/h		836			618			370			610	
Approach Delay, s/veh		27.2			28.6			15.2			15.4	
Approach LOS		C			C			B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		9.5	27.1	7.7	20.7	8.3	28.3	10.0	18.4			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		5.0	18.5	5.1	18.4	5.0	18.5	5.5	18.0			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	5.5	3.8	5.4			
Max Q Clear (g_c+I1), s		7.0	5.7	3.6	11.5	3.7	9.6	7.5	12.2			
Green Ext Time (g_e), s		0.0	1.3	0.0	2.0	0.0	1.6	0.0	1.7			
Prob of Phs Call (p_c)		0.98	1.00	0.64	1.00	0.75	1.00	0.99	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.71	1.00	0.00	1.00	0.90			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3516		3084		1777		2189			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			111		477		1585		1236			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)				

HCM 6th Signalized Intersection Capacity Analysis

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	219	0	56	0	77	0	256	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	5.0	0.0	1.6	0.0	1.7	0.0	5.5	0.0
Cycle Q Clear Time (g_c), s	5.0	0.0	1.6	0.0	1.7	0.0	5.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	1086	0	834	0	993	0	848	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	22.6	0.0	13.9	0.0	22.6	0.0	13.9	0.0
Perm LT Serve Time (g_u), s	18.9	0.0	6.7	0.0	16.3	0.0	3.7	0.0
Perm LT Q Serve Time (g_ps), s	1.4	0.0	0.5	0.0	0.5	0.0	3.7	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	563	0	284	0	462	0	310	0
V/C Ratio (X)	0.39	0.00	0.20	0.00	0.17	0.00	0.82	0.00
Avail Cap (c_a), veh/h	563	0	336	0	496	0	310	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.74	0.00
Uniform Delay (d1), s/veh	12.5	0.0	18.7	0.0	12.3	0.0	22.3	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.3	0.0	0.2	0.0	12.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	13.0	0.0	19.0	0.0	12.5	0.0	35.0	0.0
1st-Term Q (Q1), veh/ln	1.9	0.0	0.6	0.0	0.6	0.0	1.2	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	1.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	1.9	0.0	0.6	0.0	0.7	0.0	2.3	0.0
%ile Storage Ratio (RQ%)	0.41	0.00	0.13	0.00	0.12	0.00	0.48	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	143	0	288	0	145	0	289
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	3.7	0.0	9.4	0.0	3.7	0.0	9.9
Cycle Q Clear Time (g_c), s	0.0	3.7	0.0	9.4	0.0	3.7	0.0	9.9
Lane Grp Cap (c), veh/h	0	618	0	444	0	652	0	380
V/C Ratio (X)	0.00	0.23	0.00	0.65	0.00	0.22	0.00	0.76
Avail Cap (c_a), veh/h	0	618	0	503	0	652	0	492
Upstream Filter (I)	0.00	1.00	0.00	0.74	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.0	0.0	21.8	0.0	14.2	0.0	24.0
Incr Delay (d2), s/veh	0.0	0.9	0.0	1.8	0.0	0.8	0.0	5.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.9	0.0	23.7	0.0	15.0	0.0	29.0
1st-Term Q (Q1), veh/ln	0.0	1.4	0.0	3.7	0.0	1.3	0.0	3.9
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.2	0.0	0.1	0.0	0.5

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.5	0.0	3.9	0.0	1.5	0.0	4.4
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.10	0.00	0.11	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	150	0	292	0	246	0	273
Grp Sat Flow (s), veh/h/ln	0	1850	0	1784	0	1585	0	1648
Q Serve Time (g_s), s	0.0	3.7	0.0	9.5	0.0	7.6	0.0	10.2
Cycle Q Clear Time (g_c), s	0.0	3.7	0.0	9.5	0.0	7.6	0.0	10.2
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.06	0.00	0.27	0.00	1.00	0.00	0.75
Lane Grp Cap (c), veh/h	0	643	0	446	0	581	0	353
V/C Ratio (X)	0.00	0.23	0.00	0.65	0.00	0.42	0.00	0.78
Avail Cap (c_a), veh/h	0	643	0	505	0	581	0	456
Upstream Filter (I)	0.00	1.00	0.00	0.74	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.1	0.0	21.9	0.0	15.4	0.0	24.1
Incr Delay (d2), s/veh	0.0	0.8	0.0	1.9	0.0	2.3	0.0	6.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.9	0.0	23.8	0.0	17.7	0.0	30.2
1st-Term Q (Q1), veh/ln	0.0	1.5	0.0	3.7	0.0	2.5	0.0	3.7
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.2	0.0	0.4	0.0	0.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.6	0.0	4.0	0.0	2.9	0.0	4.3
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.10	0.00	0.22	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗	↗	↖	↗	
Traffic Volume (veh/h)	75	835	213	290	636	75	216	289	256	64	197	65
Future Volume (veh/h)	75	835	213	290	636	75	216	289	256	64	197	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	870	222	302	662	78	225	301	267	67	205	68
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	359	964	246	339	1390	164	438	1362	607	349	1013	326
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.04	0.34	0.34	0.14	0.43	0.43	0.38	0.38	0.38	0.38	0.38	0.38
Unsig. Movement Delay												
Ln Grp Delay, s/veh	19.6	46.1	46.5	40.1	20.2	20.2	30.9	20.6	24.2	25.4	20.8	21.0
Ln Grp LOS	B	D	D	D	C	C	C	C	C	C	C	C
Approach Vol, veh/h		1170			1042			793			340	
Approach Delay, s/veh		44.5			26.0			24.7			21.8	
Approach LOS		D			C			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			5.0	1.1	4.0		6.0	1.1	4.0			
Phs Duration (G+Y+Rc), s			42.1	17.7	38.2		42.1	8.9	47.0			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			30.9	18.5	35.5		30.9	5.9	48.1			
Max Allow Headway (MAH), s			4.6	3.8	5.3		5.4	3.8	5.3			
Max Q Clear (g_c+I1), s			24.0	12.8	31.0		13.3	4.7	16.5			
Green Ext Time (g_e), s			2.3	0.5	2.7		1.8	0.0	5.2			
Prob of Phs Call (p_c)			1.00	1.00	1.00		1.00	0.88	1.00			
Prob of Max Out (p_x)			0.00	0.31	1.00		0.00	1.00	0.01			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			1106	1781			843	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		2804		2642		3202			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		715		852		377			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

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Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	225	302	0	0	67	78	0
Grp Sat Flow (s), veh/h/ln	0	1106	1781	0	0	843	1781	0
Q Serve Time (g_s), s	0.0	16.8	10.8	0.0	0.0	5.7	2.7	0.0
Cycle Q Clear Time (g_c), s	0.0	22.0	10.8	0.0	0.0	11.3	2.7	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1106	516	0	0	843	719	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	37.6	35.7	0.0	0.0	37.6	33.7	0.0
Perm LT Serve Time (g_u), s	0.0	32.3	4.7	0.0	0.0	32.0	28.1	0.0
Perm LT Q Serve Time (g_ps), s	0.0	16.8	4.7	0.0	0.0	5.7	0.7	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	438	339	0	0	349	359	0
V/C Ratio (X)	0.00	0.51	0.89	0.00	0.00	0.19	0.22	0.00
Avail Cap (c_a), veh/h	0	438	435	0	0	349	387	0
Upstream Filter (I)	0.00	0.76	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	27.6	23.4	0.0	0.0	24.2	19.3	0.0
Incr Delay (d2), s/veh	0.0	3.2	16.8	0.0	0.0	1.2	0.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	30.9	40.1	0.0	0.0	25.4	19.6	0.0
1st-Term Q (Q1), veh/ln	0.0	4.3	4.3	0.0	0.0	1.1	1.1	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	1.6	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	4.7	5.9	0.0	0.0	1.2	1.1	0.0
%ile Storage Ratio (RQ%)	0.00	0.80	0.99	0.00	0.00	0.20	0.19	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	301	0	551	0	136	0	367
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	5.6	0.0	28.9	0.0	5.0	0.0	14.4
Cycle Q Clear Time (g_c), s	0.0	5.6	0.0	28.9	0.0	5.0	0.0	14.4
Lane Grp Cap (c), veh/h	0	1362	0	611	0	681	0	771
V/C Ratio (X)	0.00	0.22	0.00	0.90	0.00	0.20	0.00	0.48
Avail Cap (c_a), veh/h	0	1362	0	644	0	681	0	872
Upstream Filter (I)	0.00	0.76	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	20.4	0.0	30.6	0.0	20.2	0.0	19.8
Incr Delay (d2), s/veh	0.0	0.3	0.0	15.5	0.0	0.7	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
Control Delay (d), s/veh	0.0	20.6	0.0	46.1	0.0	20.8	0.0	20.2
1st-Term Q (Q1), veh/ln	0.0	2.3	0.0	12.0	0.0	2.0	0.0	5.8
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	2.6	0.0	0.1	0.0	0.1

HCM 6th Signalized Intersection Capacity Analysis

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.3	0.0	14.6	0.0	2.2	0.0	5.9
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.43	0.00	0.24	0.00	0.11
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	267	0	541	0	137	0	373
Grp Sat Flow (s), veh/h/ln	0	1585	0	1742	0	1717	0	1803
Q Serve Time (g_s), s	0.0	12.2	0.0	29.0	0.0	5.2	0.0	14.5
Cycle Q Clear Time (g_c), s	0.0	12.2	0.0	29.0	0.0	5.2	0.0	14.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.41	0.00	0.50	0.00	0.21
Lane Grp Cap (c), veh/h	0	607	0	599	0	658	0	782
V/C Ratio (X)	0.00	0.44	0.00	0.90	0.00	0.21	0.00	0.48
Avail Cap (c_a), veh/h	0	607	0	631	0	658	0	885
Upstream Filter (I)	0.00	0.76	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	22.4	0.0	30.6	0.0	20.3	0.0	19.8
Incr Delay (d2), s/veh	0.0	1.8	0.0	15.9	0.0	0.7	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
Control Delay (d), s/veh	0.0	24.2	0.0	46.5	0.0	21.0	0.0	20.2
1st-Term Q (Q1), veh/ln	0.0	4.5	0.0	11.7	0.0	2.1	0.0	5.9
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	2.6	0.0	0.1	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.8	0.0	14.4	0.0	2.2	0.0	6.0
%ile Storage Ratio (RQ%)	0.00	0.81	0.00	0.42	0.00	0.25	0.00	0.11
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	31.8
HCM 6th LOS	C

PHASE 2 - Mitigation

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	241	419	36	195	890	328	14	297	386	394	403	427
Future Volume (veh/h)	241	419	36	195	890	328	14	297	386	394	403	427
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	287	499	43	232	1060	271	17	354	341	469	480	389
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	330	874	75	258	1114	821	240	792	353	545	1454	649
HCM Platoon Ratio	1.66	1.66	1.66	2.00	2.00	2.00	2.00	2.00	2.00	1.66	1.66	1.00
Prop Arrive On Green	0.16	0.44	0.44	0.29	0.63	0.63	0.04	0.45	0.45	0.34	0.68	0.41
Unsig. Movement Delay												
Ln Grp Delay, s/veh	66.9	27.9	27.9	55.4	31.1	8.1	31.5	27.6	69.8	33.8	12.0	29.5
Ln Grp LOS	E	C	C	E	C	A	C	C	E	C	B	C
Approach Vol, veh/h		829			1563			712			1338	
Approach Delay, s/veh		41.4			30.7			47.9			24.7	
Approach LOS		D			C			D			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	3.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		27.0	29.0	20.4	33.5	6.5	49.5	15.0	39.0			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		22.5	23.5	18.9	27.1	5.0	41.0	10.5	35.5			
Max Allow Headway (MAH), s		3.7	4.4	3.7	4.9	3.7	4.5	3.7	4.7			
Max Q Clear (g_c+I1), s		24.5	25.0	15.8	14.5	2.8	23.1	10.9	32.4			
Green Ext Time (g_e), s		0.0	0.0	0.2	2.4	0.0	4.0	0.0	2.1			
Prob of Phs Call (p_c)		1.00	1.00	1.00	1.00	0.41	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.13	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3311		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		285		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis

1: Tapo Canyon Rd & E Los Angeles Ave

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Lanes in Grp	1	0	1	0	1	0	2	0
Grp Vol (v), veh/h	469	0	232	0	17	0	287	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1728	0
Q Serve Time (g_s), s	22.5	0.0	13.8	0.0	0.8	0.0	8.9	0.0
Cycle Q Clear Time (g_c), s	22.5	0.0	13.8	0.0	0.8	0.0	8.9	0.0
Perm LT Sat Flow (s_l), veh/h/ln	750	0	0	0	637	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	26.5	0.0	0.0	0.0	24.5	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	16.9	0.0	0.0	0.0	24.5	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	13.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	545	0	258	0	240	0	330	0
V/C Ratio (X)	0.86	0.00	0.90	0.00	0.07	0.00	0.87	0.00
Avail Cap (c_a), veh/h	545	0	306	0	289	0	330	0
Upstream Filter (I)	1.00	0.00	0.61	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	20.7	0.0	38.3	0.0	31.4	0.0	45.6	0.0
Incr Delay (d2), s/veh	13.1	0.0	17.1	0.0	0.1	0.0	21.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	33.8	0.0	55.4	0.0	31.5	0.0	66.9	0.0
1st-Term Q (Q1), veh/ln	6.7	0.0	4.9	0.0	0.3	0.0	3.5	0.0
2nd-Term Q (Q2), veh/ln	2.0	0.0	1.2	0.0	0.0	0.0	1.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	8.7	0.0	6.1	0.0	0.3	0.0	4.5	0.0
%ile Storage Ratio (RQ%)	0.65	0.00	0.57	0.00	0.03	0.00	0.39	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	354	0	267	0	480	0	1060
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	7.6	0.0	12.4	0.0	6.1	0.0	30.4
Cycle Q Clear Time (g_c), s	0.0	7.6	0.0	12.4	0.0	6.1	0.0	30.4
Lane Grp Cap (c), veh/h	0	792	0	469	0	1454	0	1114
V/C Ratio (X)	0.00	0.45	0.00	0.57	0.00	0.33	0.00	0.95
Avail Cap (c_a), veh/h	0	792	0	469	0	1454	0	1147
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.61
Uniform Delay (d1), s/veh	0.0	25.8	0.0	26.2	0.0	11.4	0.0	19.8
Incr Delay (d2), s/veh	0.0	1.8	0.0	1.6	0.0	0.6	0.0	11.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	27.6	0.0	27.9	0.0	12.0	0.0	31.1
1st-Term Q (Q1), veh/ln	0.0	2.7	0.0	4.4	0.0	2.0	0.0	6.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.2	0.0	0.1	0.0	1.7

HCM 6th Signalized Intersection Capacity Analysis

1: Tapo Canyon Rd & E Los Angeles Ave

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.9	0.0	4.6	0.0	2.2	0.0	7.7
%ile Storage Ratio (RQ%)	0.00	0.28	0.00	0.15	0.00	0.72	0.00	0.20
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

























Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	341	0	275	0	389	0	271
Grp Sat Flow (s), veh/h/ln	0	1585	0	1819	0	1585	0	1585
Q Serve Time (g_s), s	0.0	23.0	0.0	12.5	0.0	21.1	0.0	7.5
Cycle Q Clear Time (g_c), s	0.0	23.0	0.0	12.5	0.0	21.1	0.0	7.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.5
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.16	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	353	0	480	0	649	0	821
V/C Ratio (X)	0.00	0.96	0.00	0.57	0.00	0.60	0.00	0.33
Avail Cap (c_a), veh/h	0	353	0	480	0	649	0	836
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.61
Uniform Delay (d1), s/veh	0.0	30.0	0.0	26.2	0.0	25.4	0.0	7.9
Incr Delay (d2), s/veh	0.0	39.7	0.0	1.6	0.0	4.1	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	69.8	0.0	27.9	0.0	29.5	0.0	8.1
1st-Term Q (Q1), veh/ln	0.0	5.9	0.0	4.5	0.0	7.5	0.0	1.8
2nd-Term Q (Q2), veh/ln	0.0	3.9	0.0	0.2	0.0	0.7	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	9.8	0.0	4.7	0.0	8.2	0.0	1.8
%ile Storage Ratio (RQ%)	0.00	1.65	0.00	0.15	0.00	0.61	0.00	0.29
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	33.7
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
6: Tapo Canyon Rd & Cochran St

07/23/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	535	467	81	105	473	368	54	645	65	223	834	437
Future Volume (veh/h)	535	467	81	105	473	368	54	645	65	223	834	437
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	637	556	96	125	563	319	64	768	77	265	993	282
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	625	1443	644	345	643	436	144	875	390	324	1061	947
HCM Platoon Ratio	1.66	1.66	1.66	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.66
Prop Arrive On Green	0.50	0.67	0.67	0.15	0.36	0.36	0.08	0.49	0.49	0.19	0.60	0.50
Unsig. Movement Delay												
Ln Grp Delay, s/veh	56.6	11.0	10.1	27.8	38.7	29.5	46.9	36.1	21.0	54.3	35.3	7.7
Ln Grp LOS	F	B	B	C	D	C	D	D	C	D	D	A
Approach Vol, veh/h		1289			1007			909			1540	
Approach Delay, s/veh		33.5			34.5			35.6			33.5	
Approach LOS		C			C			D			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		2.0	3.0	1.1	3.0	2.0	3.0	1.1	3.0			
Phs Duration (G+Y+Rc), s		13.9	29.1	11.9	45.1	8.7	34.3	34.4	22.6			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		9.6	24.4	9.1	38.9	5.0	29.0	29.9	18.1			
Max Allow Headway (MAH), s		3.8	5.1	3.8	5.1	3.8	5.0	3.8	4.8			
Max Q Clear (g_c+I1), s		9.4	21.3	7.6	8.9	3.8	27.5	31.9	20.1			
Green Ext Time (g_e), s		0.0	1.6	0.0	4.5	0.0	1.1	0.0	0.0			
Prob of Phs Call (p_c)		1.00	1.00	0.97	1.00	0.83	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		3456		1781		3456		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Prot)		L (Pr/Pm)		L (Prot)		L (Pr/Pm)				

HCM 6th Signalized Intersection Capacity Analysis
6: Tapo Canyon Rd & Cochran St

07/23/2020

Lanes in Grp	2	0	1	0	2	0	1	0
Grp Vol (v), veh/h	265	0	125	0	64	0	637	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	1781	0
Q Serve Time (g_s), s	7.4	0.0	5.6	0.0	1.8	0.0	29.9	0.0
Cycle Q Clear Time (g_c), s	7.4	0.0	5.6	0.0	1.8	0.0	29.9	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	780	0	0	0	629	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	18.1	0.0	0.0	0.0	20.1	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	18.1	0.0	0.0	0.0	3.3	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	324	0	345	0	144	0	625	0
V/C Ratio (X)	0.82	0.00	0.36	0.00	0.45	0.00	1.02	0.00
Avail Cap (c_a), veh/h	332	0	375	0	173	0	625	0
Upstream Filter (I)	1.00	0.00	0.57	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	39.8	0.0	27.5	0.0	44.7	0.0	15.9	0.0
Incr Delay (d2), s/veh	14.5	0.0	0.4	0.0	2.2	0.0	40.7	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	54.3	0.0	27.8	0.0	46.9	0.0	56.6	0.0
1st-Term Q (Q1), veh/ln	2.8	0.0	2.2	0.0	0.7	0.0	7.7	0.0
2nd-Term Q (Q2), veh/ln	0.7	0.0	0.0	0.0	0.0	0.0	7.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	3.5	0.0	2.2	0.0	0.8	0.0	14.8	0.0
%ile Storage Ratio (RQ%)	0.89	0.00	0.19	0.00	0.12	0.00	1.25	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	2	0	2
Grp Vol (v), veh/h	0	768	0	556	0	993	0	563
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	19.3	0.0	6.9	0.0	25.5	0.0	14.8
Cycle Q Clear Time (g_c), s	0.0	19.3	0.0	6.9	0.0	25.5	0.0	14.8
Lane Grp Cap (c), veh/h	0	875	0	1443	0	1061	0	643
V/C Ratio (X)	0.00	0.88	0.00	0.39	0.00	0.94	0.00	0.88
Avail Cap (c_a), veh/h	0	875	0	1443	0	1061	0	643
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.57
Uniform Delay (d1), s/veh	0.0	24.0	0.0	10.8	0.0	19.3	0.0	30.8
Incr Delay (d2), s/veh	0.0	12.1	0.0	0.2	0.0	16.0	0.0	7.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	36.1	0.0	11.0	0.0	35.3	0.0	38.7
1st-Term Q (Q1), veh/ln	0.0	5.6	0.0	2.3	0.0	6.1	0.0	5.0
2nd-Term Q (Q2), veh/ln	0.0	1.5	0.0	0.0	0.0	2.4	0.0	0.7

HCM 6th Signalized Intersection Capacity Analysis

6: Tapo Canyon Rd & Cochran St

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	7.1	0.0	2.3	0.0	8.4	0.0	5.7
%ile Storage Ratio (RQ%)	0.00	0.45	0.00	0.09	0.00	1.00	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	77	0	96	0	282	0	319
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	2.7	0.0	2.2	0.0	7.3	0.0	18.1
Cycle Q Clear Time (g_c), s	0.0	2.7	0.0	2.2	0.0	7.3	0.0	18.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	29.9	0.0	9.4
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	390	0	644	0	947	0	436
V/C Ratio (X)	0.00	0.20	0.00	0.15	0.00	0.30	0.00	0.73
Avail Cap (c_a), veh/h	0	390	0	644	0	947	0	436
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.57
Uniform Delay (d1), s/veh	0.0	19.8	0.0	10.0	0.0	6.9	0.0	25.9
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.1	0.0	0.8	0.0	3.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	21.0	0.0	10.1	0.0	7.7	0.0	29.5
1st-Term Q (Q1), veh/ln	0.0	1.0	0.0	0.7	0.0	1.9	0.0	5.3
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.1	0.0	0.8	0.0	2.1	0.0	5.7
%ile Storage Ratio (RQ%)	0.00	0.17	0.00	0.28	0.00	0.27	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	398	708	7	187	700	417	32	447	407	419	217	331
Future Volume (veh/h)	398	708	7	187	700	417	32	447	407	419	217	331
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	419	745	7	197	737	334	34	471	323	441	228	243
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	471	857	8	220	800	632	370	853	380	499	1352	603
HCM Platoon Ratio	1.66	1.66	1.66	1.66	1.66	1.66	2.00	2.00	1.66	1.00	1.00	1.00
Prop Arrive On Green	0.23	0.39	0.39	0.21	0.37	0.37	0.07	0.48	0.40	0.17	0.38	0.38
Unsig. Movement Delay												
Ln Grp Delay, s/veh	49.0	40.4	39.7	61.2	38.4	15.4	20.9	20.3	43.2	35.8	16.7	20.1
Ln Grp LOS	D	D	D	E	D	B	C	C	D	D	B	C
Approach Vol, veh/h		1171			1268			828			912	
Approach Delay, s/veh		43.2			35.9			29.3			26.8	
Approach LOS		D			D			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	3.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		18.4	23.7	14.4	23.5	7.2	34.9	15.4	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 (Gmax), s		13.9	19.1	9.9	19.1	5.0	28.0	10.9	18.1			
Max Allow Headway (MAH), s		3.7	4.5	3.7	4.9	3.7	4.4	3.7	4.6			
Max Q Clear (g_c+I1), s		15.9	16.8	10.6	17.2	3.1	11.0	11.4	17.8			
Green Ext Time (g_e), s		0.0	1.0	0.0	0.8	0.0	1.9	0.0	0.2			
Prob of Phs Call (p_c)		1.00	1.00	0.99	1.00	0.53	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3607		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		34		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

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Lanes in Grp	1	0	1	0	1	0	2	0
Grp Vol (v), veh/h	441	0	197	0	34	0	419	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1728	0
Q Serve Time (g_s), s	13.9	0.0	8.6	0.0	1.1	0.0	9.4	0.0
Cycle Q Clear Time (g_c), s	13.9	0.0	8.6	0.0	1.1	0.0	9.4	0.0
Perm LT Sat Flow (s_l), veh/h/ln	684	0	0	0	922	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	21.2	0.0	0.0	0.0	19.2	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	11.7	0.0	0.0	0.0	19.2	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	11.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	499	0	220	0	370	0	471	0
V/C Ratio (X)	0.88	0.00	0.89	0.00	0.09	0.00	0.89	0.00
Avail Cap (c_a), veh/h	499	0	220	0	423	0	471	0
Upstream Filter (I)	1.00	0.00	0.85	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	18.9	0.0	31.3	0.0	20.8	0.0	30.4	0.0
Incr Delay (d2), s/veh	16.8	0.0	29.9	0.0	0.1	0.0	18.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	35.8	0.0	61.2	0.0	20.9	0.0	49.0	0.0
1st-Term Q (Q1), veh/ln	5.2	0.0	3.2	0.0	0.4	0.0	3.3	0.0
2nd-Term Q (Q2), veh/ln	2.3	0.0	1.8	0.0	0.0	0.0	1.2	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	7.6	0.0	5.0	0.0	0.4	0.0	4.5	0.0
%ile Storage Ratio (RQ%)	0.56	0.00	0.47	0.00	0.04	0.00	0.39	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	471	0	367	0	228	0	737
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	7.5	0.0	15.2	0.0	3.4	0.0	15.8
Cycle Q Clear Time (g_c), s	0.0	7.5	0.0	15.2	0.0	3.4	0.0	15.8
Lane Grp Cap (c), veh/h	0	853	0	422	0	1352	0	800
V/C Ratio (X)	0.00	0.55	0.00	0.87	0.00	0.17	0.00	0.92
Avail Cap (c_a), veh/h	0	853	0	424	0	1352	0	804
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.85
Uniform Delay (d1), s/veh	0.0	17.8	0.0	23.1	0.0	16.4	0.0	24.4
Incr Delay (d2), s/veh	0.0	2.6	0.0	17.3	0.0	0.3	0.0	14.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.3	0.0	40.4	0.0	16.7	0.0	38.4
1st-Term Q (Q1), veh/ln	0.0	2.4	0.0	4.7	0.0	1.2	0.0	4.9
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	2.0	0.0	0.1	0.0	1.6

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.7	0.0	6.7	0.0	1.3	0.0	6.4
%ile Storage Ratio (RQ%)	0.00	0.25	0.00	0.22	0.00	0.43	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	323	0	385	0	243	0	334
Grp Sat Flow (s), veh/h/ln	0	1585	0	1864	0	1585	0	1585
Q Serve Time (g_s), s	0.0	14.8	0.0	15.2	0.0	9.0	0.0	12.6
Cycle Q Clear Time (g_c), s	0.0	14.8	0.0	15.2	0.0	9.0	0.0	12.6
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.9
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.02	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	380	0	443	0	603	0	632
V/C Ratio (X)	0.00	0.85	0.00	0.87	0.00	0.40	0.00	0.53
Avail Cap (c_a), veh/h	0	380	0	445	0	603	0	634
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.85
Uniform Delay (d1), s/veh	0.0	22.8	0.0	23.1	0.0	18.1	0.0	14.7
Incr Delay (d2), s/veh	0.0	20.5	0.0	16.6	0.0	2.0	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
Control Delay (d), s/veh	0.0	43.2	0.0	39.7	0.0	20.1	0.0	15.4
1st-Term Q (Q1), veh/ln	0.0	4.1	0.0	4.9	0.0	2.9	0.0	3.2
2nd-Term Q (Q2), veh/ln	0.0	2.2	0.0	2.0	0.0	0.3	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.2	0.0	6.9	0.0	3.3	0.0	3.3
%ile Storage Ratio (RQ%)	0.00	1.05	0.00	0.22	0.00	0.24	0.00	0.53
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	34.7
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

6:

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	498	684	50	107	498	439	79	920	107	340	704	563
Future Volume (veh/h)	498	684	50	107	498	439	79	920	107	340	704	563
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	519	712	52	111	519	249	82	958	59	354	733	534
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	510	1350	602	298	571	429	144	992	443	380	1235	1005
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.66	2.00	2.00	1.66
Prop Arrive On Green	0.57	0.76	0.76	0.13	0.32	0.32	0.08	0.56	0.46	0.22	0.69	0.58
Unsig. Movement Delay												
Ln Grp Delay, s/veh	67.8	9.6	8.4	33.0	51.6	29.5	52.9	45.1	22.5	71.9	14.9	9.2
Ln Grp LOS	F	A	A	C	D	C	D	D	C	E	B	A
Approach Vol, veh/h		1283			879			1099			1621	
Approach Delay, s/veh		33.1			43.0			44.5			25.4	
Approach LOS		C			D			D			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		2.0	3.0	1.1	3.0	2.0	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		16.6	35.2	11.9	46.3	9.1	42.7	36.0	22.2			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		12.1	30.4	9.3	40.2	6.5	36.0	31.5	18.0			
Max Allow Headway (MAH), s		3.8	5.2	3.8	5.2	3.8	4.7	3.8	4.9			
Max Q Clear (g_c+I1), s		13.1	30.4	7.6	10.8	4.5	22.0	33.5	17.4			
Green Ext Time (g_e), s		0.0	0.0	0.0	5.7	0.0	6.2	0.0	0.3			
Prob of Phs Call (p_c)		1.00	1.00	0.97	1.00	0.92	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.01	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		3456		1781		3456		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Prot)		L (Pr/Pm)		L (Prot)		L (Prot)				

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Lanes in Grp	2	0	1	0	2	0	1	0
Grp Vol (v), veh/h	354	0	111	0	82	0	519	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	1781	0
Q Serve Time (g_s), s	11.1	0.0	5.6	0.0	2.5	0.0	31.5	0.0
Cycle Q Clear Time (g_c), s	11.1	0.0	5.6	0.0	2.5	0.0	31.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	703	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	17.7	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	17.7	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	380	0	298	0	144	0	510	0
V/C Ratio (X)	0.93	0.00	0.37	0.00	0.57	0.00	1.02	0.00
Avail Cap (c_a), veh/h	380	0	329	0	204	0	510	0
Upstream Filter (I)	1.00	0.00	0.79	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	42.5	0.0	32.4	0.0	49.5	0.0	23.5	0.0
Incr Delay (d2), s/veh	29.4	0.0	0.6	0.0	3.5	0.0	44.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	71.9	0.0	33.0	0.0	52.9	0.0	67.8	0.0
1st-Term Q (Q1), veh/ln	4.1	0.0	2.3	0.0	1.1	0.0	8.7	0.0
2nd-Term Q (Q2), veh/ln	1.6	0.0	0.1	0.0	0.1	0.0	6.3	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	5.7	0.0	2.3	0.0	1.1	0.0	15.0	0.0
%ile Storage Ratio (RQ%)	1.45	0.00	0.20	0.00	0.18	0.00	1.27	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	2	0	2
Grp Vol (v), veh/h	0	958	0	712	0	733	0	519
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	28.4	0.0	8.8	0.0	11.8	0.0	15.4
Cycle Q Clear Time (g_c), s	0.0	28.4	0.0	8.8	0.0	11.8	0.0	15.4
Lane Grp Cap (c), veh/h	0	992	0	1350	0	1235	0	571
V/C Ratio (X)	0.00	0.97	0.00	0.53	0.00	0.59	0.00	0.91
Avail Cap (c_a), veh/h	0	992	0	1350	0	1235	0	582
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.79
Uniform Delay (d1), s/veh	0.0	23.8	0.0	9.2	0.0	12.7	0.0	36.5
Incr Delay (d2), s/veh	0.0	21.4	0.0	0.4	0.0	2.1	0.0	15.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	45.1	0.0	9.6	0.0	14.9	0.0	51.6
1st-Term Q (Q1), veh/ln	0.0	8.0	0.0	2.4	0.0	3.2	0.0	5.5
2nd-Term Q (Q2), veh/ln	0.0	2.9	0.0	0.1	0.0	0.4	0.0	1.2

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	11.0	0.0	2.5	0.0	3.6	0.0	6.7
%ile Storage Ratio (RQ%)	0.00	0.33	0.00	0.18	0.00	0.41	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	59	0	52	0	534	0	249
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	2.3	0.0	0.9	0.0	20.0	0.0	14.9
Cycle Q Clear Time (g_c), s	0.0	2.3	0.0	0.9	0.0	20.0	0.0	14.9
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	31.5	0.0	12.1
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	443	0	602	0	1005	0	429
V/C Ratio (X)	0.00	0.13	0.00	0.09	0.00	0.53	0.00	0.58
Avail Cap (c_a), veh/h	0	443	0	602	0	1005	0	434
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.79
Uniform Delay (d1), s/veh	0.0	21.9	0.0	8.3	0.0	7.2	0.0	28.0
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.1	0.0	2.0	0.0	1.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.5	0.0	8.4	0.0	9.2	0.0	29.5
1st-Term Q (Q1), veh/ln	0.0	0.9	0.0	0.3	0.0	3.7	0.0	4.5
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.6	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.9	0.0	0.3	0.0	4.2	0.0	4.6
%ile Storage Ratio (RQ%)	0.00	0.15	0.00	0.12	0.00	0.54	0.00	0.12
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	34.9
HCM 6th LOS	C

PHASE 3

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	351	10	36	58	222	34	14	675	7	9	781	784
Future Volume (veh/h)	351	10	36	58	222	34	14	675	7	9	781	784
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	418	12	43	69	264	40	17	804	8	11	930	933
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	426	524	467	89	376	189	172	1570	700	291	1550	691
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.24	0.29	0.29	0.05	0.11	0.11	0.02	0.44	0.44	0.01	0.44	0.44
Unsig. Movement Delay												
Ln Grp Delay, s/veh	72.9	22.6	23.1	55.0	41.2	36.3	15.7	19.3	14.1	14.9	21.1	192.3
Ln Grp LOS	E	C	C	E	D	D	B	B	B	B	C	F
Approach Vol, veh/h		473			373			829			1874	
Approach Delay, s/veh		67.1			43.2			19.2			106.3	
Approach LOS		E			D			B			F	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	3.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		5.7	44.3	9.0	31.0	6.2	43.7	26.0	14.0			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		5.0	27.5	9.1	30.4	5.0	27.5	21.5	18.0			
Max Allow Headway (MAH), s		3.7	4.9	3.7	5.2	3.7	4.4	3.7	4.8			
Max Q Clear (g_c+I1), s		2.3	16.7	5.4	3.8	2.5	41.2	23.0	8.5			
Green Ext Time (g_e), s		0.0	3.8	0.0	0.2	0.0	0.0	0.0	1.1			
Prob of Phs Call (p_c)		0.24	1.00	0.82	1.00	0.35	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.10			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		1777		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	11	0	69	0	17	0	418	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	0.3	0.0	3.4	0.0	0.5	0.0	21.0	0.0
Cycle Q Clear Time (g_c), s	0.3	0.0	3.4	0.0	0.5	0.0	21.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	672	0	0	0	246	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	39.2	0.0	0.0	0.0	39.2	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	25.1	0.0	0.0	0.0	21.3	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.2	0.0	0.0	0.0	1.3	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	291	0	89	0	172	0	426	0
V/C Ratio (X)	0.04	0.00	0.77	0.00	0.10	0.00	0.98	0.00
Avail Cap (c_a), veh/h	366	0	180	0	237	0	426	0
Upstream Filter (I)	1.00	0.00	0.96	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	14.9	0.0	42.2	0.0	15.4	0.0	34.1	0.0
Incr Delay (d2), s/veh	0.1	0.0	12.8	0.0	0.2	0.0	38.8	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	14.9	0.0	55.0	0.0	15.7	0.0	72.9	0.0
1st-Term Q (Q1), veh/ln	0.1	0.0	1.4	0.0	0.2	0.0	8.4	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.3	0.0	0.0	0.0	4.6	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.1	0.0	1.8	0.0	0.2	0.0	13.0	0.0
%ile Storage Ratio (RQ%)	0.01	0.00	0.17	0.00	0.02	0.00	1.14	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	804	0	12	0	930	0	264
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	14.7	0.0	0.4	0.0	18.0	0.0	6.5
Cycle Q Clear Time (g_c), s	0.0	14.7	0.0	0.4	0.0	18.0	0.0	6.5
Lane Grp Cap (c), veh/h	0	1570	0	524	0	1550	0	376
V/C Ratio (X)	0.00	0.51	0.00	0.02	0.00	0.60	0.00	0.70
Avail Cap (c_a), veh/h	0	1570	0	600	0	1550	0	711
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.96
Uniform Delay (d1), s/veh	0.0	18.1	0.0	22.5	0.0	19.4	0.0	38.9
Incr Delay (d2), s/veh	0.0	1.2	0.0	0.0	0.0	1.7	0.0	2.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.3	0.0	22.6	0.0	21.1	0.0	41.2
1st-Term Q (Q1), veh/ln	0.0	5.4	0.0	0.2	0.0	6.6	0.0	2.7
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.4	0.0	0.1

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.7	0.0	0.2	0.0	7.0	0.0	2.8
%ile Storage Ratio (RQ%)	0.00	0.54	0.00	0.01	0.00	2.34	0.00	0.07
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	8	0	43	0	933	0	40
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	0.3	0.0	1.8	0.0	39.2	0.0	2.1
Cycle Q Clear Time (g_c), s	0.0	0.3	0.0	1.8	0.0	39.2	0.0	2.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	700	0	467	0	691	0	189
V/C Ratio (X)	0.00	0.01	0.00	0.09	0.00	1.35	0.00	0.21
Avail Cap (c_a), veh/h	0	700	0	535	0	691	0	338
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.96
Uniform Delay (d1), s/veh	0.0	14.1	0.0	23.0	0.0	25.4	0.0	35.8
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	166.9	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
Control Delay (d), s/veh	0.0	14.1	0.0	23.1	0.0	192.3	0.0	36.3
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.6	0.0	12.9	0.0	0.8
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	32.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.6	0.0	45.0	0.0	0.8
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.02	0.00	3.36	0.00	0.12
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	60.5	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	74.1
HCM 6th LOS	E

HCM 6th Signalized Intersection Capacity Analysis
2: Tapo St & E Los Angeles Ave

07/23/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	450	12	63	3	17	9	20	68	3	8	146	442
Future Volume (veh/h)	450	12	63	3	17	9	20	68	3	8	146	442
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	500	13	70	3	19	10	22	76	3	9	162	491
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	601	380	339	7	102	50	554	2298	90	925	1233	1321
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.17	0.21	0.21	0.00	0.04	0.04	0.66	0.66	0.66	0.66	0.66	0.66
Unsig. Movement Delay												
Ln Grp Delay, s/veh	47.0	34.3	35.8	90.0	51.8	52.0	8.0	6.6	6.6	6.7	7.2	3.0
Ln Grp LOS	D	C	D	F	D	D	A	A	A	A	A	A
Approach Vol, veh/h		583			32			101			662	
Approach Delay, s/veh		45.3			55.5			6.9			4.1	
Approach LOS		D			E			A			A	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	2.0	4.0		5.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			77.0	4.9	28.0		77.0	23.6	9.4			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			32.3	8.5	55.5		32.3	45.5	18.5			
Max Allow Headway (MAH), s			5.2	3.7	5.2		4.2	3.7	5.0			
Max Q Clear (g_c+I1), s			6.7	2.2	6.0		10.2	17.4	2.9			
Green Ext Time (g_e), s			0.5	0.0	0.5		2.7	1.8	0.1			
Prob of Phs Call (p_c)			1.00	0.09	1.00		1.00	1.00	0.97			
Prob of Max Out (p_x)			0.00	0.00	0.00		0.00	0.00	0.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			779	1781			1320	3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3486		1777		1870		2319			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			137		1585		1585		1125			
Left Lane Group Data												
Assigned Mvmt		0	5	3	0	0	1	7	0			
Lane Assignment			L	L (Prot)			L	L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis
2: Tapo St & E Los Angeles Ave

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Lanes in Grp	0	1	1	0	0	1	2	0
Grp Vol (v), veh/h	0	22	3	0	0	9	500	0
Grp Sat Flow (s), veh/h/ln	0	779	1781	0	0	1320	1728	0
Q Serve Time (g_s), s	0.0	1.2	0.2	0.0	0.0	0.3	15.4	0.0
Cycle Q Clear Time (g_c), s	0.0	4.7	0.2	0.0	0.0	1.1	15.4	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	779	0	0	0	1320	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	72.5	0.0	0.0	0.0	72.5	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	69.0	0.0	0.0	0.0	71.7	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	1.2	0.0	0.0	0.0	0.3	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	554	7	0	0	925	601	0
V/C Ratio (X)	0.00	0.04	0.42	0.00	0.00	0.01	0.83	0.00
Avail Cap (c_a), veh/h	0	554	138	0	0	925	1429	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	7.9	54.7	0.0	0.0	6.7	43.9	0.0
Incr Delay (d2), s/veh	0.0	0.1	35.4	0.0	0.0	0.0	3.1	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.0	90.0	0.0	0.0	6.7	47.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.2	0.1	0.0	0.0	0.1	6.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.3	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.2	0.0	0.0	0.1	6.6	0.0
%ile Storage Ratio (RQ%)	0.00	0.08	0.03	0.00	0.00	0.02	0.64	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	39	0	13	0	162	0	14
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	0.8	0.0	0.6	0.0	3.6	0.0	0.8
Cycle Q Clear Time (g_c), s	0.0	0.8	0.0	0.6	0.0	3.6	0.0	0.8
Lane Grp Cap (c), veh/h	0	1171	0	380	0	1233	0	78
V/C Ratio (X)	0.00	0.03	0.00	0.03	0.00	0.13	0.00	0.18
Avail Cap (c_a), veh/h	0	1171	0	896	0	1233	0	299
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	6.5	0.0	34.2	0.0	7.0	0.0	50.7
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	6.6	0.0	34.3	0.0	7.2	0.0	51.8
1st-Term Q (Q1), veh/ln	0.0	0.3	0.0	0.3	0.0	1.3	0.0	0.4
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis 2: Tapo St & E Los Angeles Ave

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	0.3	0.0	1.3	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.01	0.00	0.34	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	40	0	70	0	491	0	15
Grp Sat Flow (s), veh/h/ln	0	1846	0	1585	0	1585	0	1668
Q Serve Time (g_s), s	0.0	0.8	0.0	4.0	0.0	8.2	0.0	0.9
Cycle Q Clear Time (g_c), s	0.0	0.8	0.0	4.0	0.0	8.2	0.0	0.9
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	19.1	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.07	0.00	1.00	0.00	1.00	0.00	0.67
Lane Grp Cap (c), veh/h	0	1217	0	339	0	1321	0	74
V/C Ratio (X)	0.00	0.03	0.00	0.21	0.00	0.37	0.00	0.20
Avail Cap (c_a), veh/h	0	1217	0	800	0	1321	0	280
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	6.5	0.0	35.5	0.0	2.2	0.0	50.7
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.3	0.0	0.8	0.0	1.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	6.6	0.0	35.8	0.0	3.0	0.0	52.0
1st-Term Q (Q1), veh/ln	0.0	0.3	0.0	1.5	0.0	1.1	0.0	0.4
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	1.5	0.0	1.4	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.04	0.00	0.35	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

07/23/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Factor	0.92	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	2183	0	0	2183	0	0	481	0	0	481	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
Prop Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			0			0			0	
Approach Delay, s/veh		0.0			0.0			0.0			0.0	
Approach LOS												

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		8.0		8.0		8.0		8.0
Phs Duration (G+Y+Rc), s		47.5		22.5		47.5		22.5
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green (Gmax), s		43.0		18.0		43.0		18.0
Max Allow Headway (MAH), s		0.0		0.0		0.0		0.0
Max Q Clear (g_c+I1), s		0.0		0.0		0.0		0.0
Green Ext Time (g_e), s		0.0		0.0		0.0		0.0
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00

Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		0		0		0		0

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3741		1870		3741		1870

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		0		0		0		0

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment								

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

07/23/2020

Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	43.0	0.0	18.0	0.0	43.0	0.0	18.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2183	0	481	0	2183	0	481
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2183	0	481	0	2183	0	481
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	0.0
HCM 6th LOS	A

HCM 6th Signalized Intersection Capacity Analysis

4: Hlidden Ranch Dr

03/08/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	247	0	0	84	0
Future Volume (veh/h)	0	0	0	0	0	0	0	247	0	0	84	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	287	0	0	98	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	840	0	0	840	0	0	687	0	0	687	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Prop Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.38	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.2	0.0	0.0	10.5	0.0
Ln Grp LOS	A	A	A	A	A	A	A	B	A	A	B	A
Approach Vol, veh/h		0			0			287			98	
Approach Delay, s/veh		0.0			0.0			13.2			10.5	
Approach LOS								B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			22.5		26.5		22.5		26.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			18.0		22.0		18.0		22.0			
Max Allow Headway (MAH), s			5.1		0.0		5.1		0.0			
Max Q Clear (g_c+I1), s			7.5		0.0		3.7		0.0			
Green Ext Time (g_e), s			1.1		0.0		0.3		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1870		1870		1870		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis

4: Hidden Ranch Dr

03/08/2021

Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	18.0	0.0	22.0	0.0	18.0	0.0	22.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	287	0	0	0	98	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	1870	0	1870	0	1870
Q Serve Time (g_s), s	0.0	5.5	0.0	0.0	0.0	1.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.5	0.0	0.0	0.0	1.7	0.0	0.0
Lane Grp Cap (c), veh/h	0	687	0	840	0	687	0	840
V/C Ratio (X)	0.00	0.42	0.00	0.00	0.00	0.14	0.00	0.00
Avail Cap (c_a), veh/h	0	687	0	840	0	687	0	840
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	11.3	0.0	0.0	0.0	10.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.9	0.0	0.0	0.0	0.4	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
Control Delay (d), s/veh	0.0	13.2	0.0	0.0	0.0	10.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.8	0.0	0.0	0.0	0.6	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.1	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.2	0.0	0.0	0.0	0.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.57	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

HCM 6th Signalized Intersection Capacity Analysis
5: Sequoia Ave & Cochran St

07/23/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	302	339	47	25	255	37	88	475	9	51	349	377
Future Volume (veh/h)	302	339	47	25	255	37	88	475	9	51	349	377
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	419	471	65	35	354	51	122	660	12	71	485	524
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	480	1109	495	227	442	197	236	1912	35	395	951	849
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.22	0.31	0.31	0.03	0.12	0.12	0.54	0.54	0.54	0.54	0.54	0.54
Unsig. Movement Delay												
Ln Grp Delay, s/veh	45.4	30.3	27.3	40.4	52.8	44.3	41.7	15.6	15.5	20.4	17.7	20.1
Ln Grp LOS	D	C	C	D	D	D	D	B	B	C	B	C
Approach Vol, veh/h		955			440			794			1080	
Approach Delay, s/veh		36.7			50.8			19.6			19.0	
Approach LOS		D			D			B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	1.1	3.0		6.0	1.1	3.0			
Phs Duration (G+Y+Rc), s			63.4	7.8	38.8		63.4	28.4	18.2			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			43.5	5.1	38.4		53.0	25.5	18.0			
Max Allow Headway (MAH), s			5.3	3.7	4.8		5.1	3.7	4.8			
Max Q Clear (g_c+I1), s			48.6	3.9	13.6		27.2	23.7	12.7			
Green Ext Time (g_e), s			0.0	0.0	3.1		7.5	0.3	1.0			
Prob of Phs Call (p_c)			1.00	0.66	1.00		1.00	1.00	1.00			
Prob of Max Out (p_x)			0.00	1.00	0.00		0.00	1.00	0.81			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			559	1781			766	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3571		3554		1777		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			65		1585		1585		1585			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

HCM 6th Signalized Intersection Capacity Analysis

5: Sequoia Ave & Cochran St

07/23/2020

Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	122	35	0	0	71	419	0
Grp Sat Flow (s), veh/h/ln	0	559	1781	0	0	766	1781	0
Q Serve Time (g_s), s	0.0	21.3	1.9	0.0	0.0	6.4	21.7	0.0
Cycle Q Clear Time (g_c), s	0.0	46.6	1.9	0.0	0.0	18.0	21.7	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	559	869	0	0	766	980	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	58.9	13.7	0.0	0.0	58.9	15.7	0.0
Perm LT Serve Time (g_u), s	0.0	33.7	13.7	0.0	0.0	47.3	3.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	21.3	0.0	0.0	0.0	6.4	3.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	236	227	0	0	395	480	0
V/C Ratio (X)	0.00	0.52	0.15	0.00	0.00	0.18	0.87	0.00
Avail Cap (c_a), veh/h	0	236	256	0	0	395	505	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.70	1.00	0.00
Uniform Delay (d1), s/veh	0.0	33.9	40.1	0.0	0.0	19.7	30.5	0.0
Incr Delay (d2), s/veh	0.0	7.8	0.3	0.0	0.0	0.7	15.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	41.7	40.4	0.0	0.0	20.4	45.4	0.0
1st-Term Q (Q1), veh/ln	0.0	2.8	0.8	0.0	0.0	1.1	8.7	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.1	2.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.3	0.8	0.0	0.0	1.2	10.7	0.0
%ile Storage Ratio (RQ%)	0.00	0.83	0.14	0.00	0.00	0.20	1.60	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	2
Grp Vol (v), veh/h	0	328	0	471	0	485	0	354
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	11.6	0.0	11.6	0.0	19.2	0.0	10.7
Cycle Q Clear Time (g_c), s	0.0	11.6	0.0	11.6	0.0	19.2	0.0	10.7
Lane Grp Cap (c), veh/h	0	951	0	1109	0	951	0	442
V/C Ratio (X)	0.00	0.35	0.00	0.42	0.00	0.51	0.00	0.80
Avail Cap (c_a), veh/h	0	951	0	1241	0	951	0	582
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.70	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.6	0.0	30.0	0.0	16.3	0.0	46.8
Incr Delay (d2), s/veh	0.0	1.0	0.0	0.3	0.0	1.4	0.0	6.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.6	0.0	30.3	0.0	17.7	0.0	52.8
1st-Term Q (Q1), veh/ln	0.0	4.3	0.0	4.7	0.0	7.1	0.0	4.6
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.4	0.0	0.4

HCM 6th Signalized Intersection Capacity Analysis

5: Sequoia Ave & Cochran St

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.5	0.0	4.8	0.0	7.5	0.0	4.9
%ile Storage Ratio (RQ%)	0.00	0.48	0.00	0.08	0.00	0.17	0.00	0.11
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

























Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		R		T+R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	344	0	65	0	524	0	51
Grp Sat Flow (s), veh/h/ln	0	1859	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	11.6	0.0	3.2	0.0	25.2	0.0	3.2
Cycle Q Clear Time (g_c), s	0.0	11.6	0.0	3.2	0.0	25.2	0.0	3.2
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.03	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	995	0	495	0	849	0	197
V/C Ratio (X)	0.00	0.35	0.00	0.13	0.00	0.62	0.00	0.26
Avail Cap (c_a), veh/h	0	995	0	553	0	849	0	259
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.70	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.6	0.0	27.1	0.0	17.7	0.0	43.6
Incr Delay (d2), s/veh	0.0	1.0	0.0	0.1	0.0	2.4	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
Control Delay (d), s/veh	0.0	15.5	0.0	27.3	0.0	20.1	0.0	44.3
1st-Term Q (Q1), veh/ln	0.0	4.5	0.0	1.2	0.0	8.3	0.0	1.2
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.6	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.8	0.0	1.2	0.0	8.9	0.0	1.3
%ile Storage Ratio (RQ%)	0.00	0.51	0.00	0.20	0.00	0.20	0.00	0.21
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	28.6
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
6: Tapo Canyon Rd & Cochran St

07/23/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	544	457	81	180	463	313	54	851	141	223	1039	446
Future Volume (veh/h)	544	457	81	180	463	313	54	851	141	223	1039	446
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	648	544	96	214	551	254	64	1013	168	265	1237	412
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	602	1210	540	391	548	244	127	1099	490	285	1261	1045
HCM Platoon Ratio	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.00
Prop Arrive On Green	0.50	0.57	0.57	0.20	0.26	0.26	0.06	0.51	0.51	0.14	0.59	0.35
Unsig. Movement Delay												
Ln Grp Delay, s/veh	80.7	19.8	18.1	33.9	79.6	105.5	58.4	41.8	23.9	86.6	45.4	10.5
Ln Grp LOS	F	B	B	C	F	F	E	D	C	F	D	B
Approach Vol, veh/h		1288			1019			1245			1914	
Approach Delay, s/veh		50.3			76.4			40.2			43.6	
Approach LOS		D			E			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		2.0	3.0	1.1	3.0	2.0	3.0	1.1	3.0			
Phs Duration (G+Y+Rc), s		14.4	41.6	18.6	45.4	8.9	47.1	41.0	23.0			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		9.9	37.1	17.1	37.9	5.0	42.0	36.5	18.5			
Max Allow Headway (MAH), s		3.8	5.1	3.8	5.1	3.8	4.9	3.8	4.9			
Max Q Clear (g_c+I1), s		11.1	33.6	14.0	12.7	4.2	42.6	38.5	20.5			
Green Ext Time (g_e), s		0.0	2.3	0.2	4.2	0.0	0.0	0.0	0.0			
Prob of Phs Call (p_c)		1.00	1.00	1.00	1.00	0.88	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.01	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		3456		1781		3456		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Prot)		L (Pr/Pm)		L (Prot)		L (Pr/Pm)				

HCM 6th Signalized Intersection Capacity Analysis
6: Tapo Canyon Rd & Cochran St

07/23/2020

Lanes in Grp	2	0	1	0	2	0	1	0
Grp Vol (v), veh/h	265	0	214	0	64	0	648	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	1781	0
Q Serve Time (g_s), s	9.1	0.0	12.0	0.0	2.2	0.0	36.5	0.0
Cycle Q Clear Time (g_c), s	9.1	0.0	12.0	0.0	2.2	0.0	36.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	789	0	0	0	677	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	18.5	0.0	0.0	0.0	20.5	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	18.5	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	285	0	391	0	127	0	602	0
V/C Ratio (X)	0.93	0.00	0.55	0.00	0.50	0.00	1.08	0.00
Avail Cap (c_a), veh/h	285	0	435	0	144	0	602	0
Upstream Filter (I)	1.00	0.00	0.76	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	51.4	0.0	33.0	0.0	55.3	0.0	21.6	0.0
Incr Delay (d2), s/veh	35.1	0.0	0.9	0.0	3.1	0.0	59.1	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	86.6	0.0	33.9	0.0	58.4	0.0	80.7	0.0
1st-Term Q (Q1), veh/ln	3.7	0.0	4.7	0.0	0.9	0.0	11.5	0.0
2nd-Term Q (Q2), veh/ln	1.4	0.0	0.1	0.0	0.1	0.0	9.9	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	5.1	0.0	4.8	0.0	1.0	0.0	21.3	0.0
%ile Storage Ratio (RQ%)	1.30	0.00	0.40	0.00	0.16	0.00	1.81	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	11.5	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	2	0	2
Grp Vol (v), veh/h	0	1013	0	544	0	1237	0	551
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	31.6	0.0	10.7	0.0	40.6	0.0	18.5
Cycle Q Clear Time (g_c), s	0.0	31.6	0.0	10.7	0.0	40.6	0.0	18.5
Lane Grp Cap (c), veh/h	0	1099	0	1210	0	1261	0	548
V/C Ratio (X)	0.00	0.92	0.00	0.45	0.00	0.98	0.00	1.01
Avail Cap (c_a), veh/h	0	1099	0	1210	0	1261	0	548
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.76
Uniform Delay (d1), s/veh	0.0	27.9	0.0	19.5	0.0	24.2	0.0	44.6
Incr Delay (d2), s/veh	0.0	13.9	0.0	0.3	0.0	21.1	0.0	34.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	41.8	0.0	19.8	0.0	45.4	0.0	79.6
1st-Term Q (Q1), veh/ln	0.0	11.0	0.0	3.8	0.0	13.0	0.0	7.4
2nd-Term Q (Q2), veh/ln	0.0	2.1	0.0	0.0	0.0	3.7	0.0	2.7

HCM 6th Signalized Intersection Capacity Analysis

6: Tapo Canyon Rd & Cochran St

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	13.1	0.0	3.9	0.0	16.7	0.0	10.0
%ile Storage Ratio (RQ%)	0.00	0.83	0.00	0.14	0.00	1.99	0.00	0.25
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Right Lane Group Data





















Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	168	0	96	0	412	0	254
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	7.5	0.0	3.5	0.0	14.4	0.0	18.5
Cycle Q Clear Time (g_c), s	0.0	7.5	0.0	3.5	0.0	14.4	0.0	18.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	36.5	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	490	0	540	0	1045	0	244
V/C Ratio (X)	0.00	0.34	0.00	0.18	0.00	0.39	0.00	1.04
Avail Cap (c_a), veh/h	0	490	0	540	0	1045	0	244
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.76
Uniform Delay (d1), s/veh	0.0	22.0	0.0	18.0	0.0	9.4	0.0	44.6
Incr Delay (d2), s/veh	0.0	1.9	0.0	0.2	0.0	1.1	0.0	60.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	23.9	0.0	18.1	0.0	10.5	0.0	105.5
1st-Term Q (Q1), veh/ln	0.0	2.6	0.0	1.3	0.0	4.7	0.0	6.6
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.3	0.0	4.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.8	0.0	1.3	0.0	5.0	0.0	10.7
%ile Storage Ratio (RQ%)	0.00	0.45	0.00	0.46	0.00	0.64	0.00	0.27
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Intersection Summary

HCM 6th Ctrl Delay	50.5
HCM 6th LOS	D

HCM 6th Signalized Intersection Capacity Analysis
7: Tapo St & Cochran St

07/23/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	396	122	248	359	130	88	258	232	187	370	165
Future Volume (veh/h)	210	396	122	248	359	130	88	258	232	187	370	165
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	250	471	145	295	427	155	105	307	276	223	440	196
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	394	569	174	402	599	215	349	511	449	403	803	355
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.13	0.21	0.21	0.15	0.23	0.23	0.06	0.29	0.29	0.11	0.33	0.33
Unsig. Movement Delay												
Ln Grp Delay, s/veh	22.5	37.7	38.8	26.4	30.7	31.3	18.0	28.3	29.4	17.9	23.9	24.2
Ln Grp LOS	C	D	D	C	C	C	B	C	C	B	C	C
Approach Vol, veh/h		866			877			688			859	
Approach Delay, s/veh		33.7			29.5			27.2			22.4	
Approach LOS		C			C			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		12.7	25.9	15.9	20.4	9.0	29.6	14.3	22.0			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		8.5	19.0	11.5	18.0	6.5	21.0	9.8	19.7			
Max Allow Headway (MAH), s		3.8	5.4	3.8	5.3	3.8	5.3	3.8	5.3			
Max Q Clear (g_c+I1), s		8.3	13.4	11.5	14.7	5.1	13.3	10.0	13.6			
Green Ext Time (g_e), s		0.0	1.8	0.0	1.2	0.0	2.4	0.0	1.9			
Prob of Phs Call (p_c)		0.99	1.00	1.00	1.00	0.89	1.00	0.99	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.85			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1792		2680		2398		2561			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1572		819		1059		920			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)				

HCM 6th Signalized Intersection Capacity Analysis

7: Tapo St & Cochran St

07/23/2020

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	223	0	295	0	105	0	250	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	6.3	0.0	9.5	0.0	3.1	0.0	8.0	0.0
Cycle Q Clear Time (g_c), s	6.3	0.0	9.5	0.0	3.1	0.0	8.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	832	0	807	0	792	0	833	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	22.6	0.0	15.9	0.0	21.4	0.0	15.9	0.0
Perm LT Serve Time (g_u), s	10.0	0.0	3.2	0.0	13.8	0.0	5.9	0.0
Perm LT Q Serve Time (g_ps), s	4.6	0.0	3.2	0.0	1.2	0.0	4.3	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	403	0	402	0	349	0	394	0
V/C Ratio (X)	0.55	0.00	0.73	0.00	0.30	0.00	0.63	0.00
Avail Cap (c_a), veh/h	409	0	404	0	396	0	394	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.82	0.00
Uniform Delay (d1), s/veh	16.3	0.0	19.6	0.0	17.5	0.0	19.8	0.0
Incr Delay (d2), s/veh	1.6	0.0	6.7	0.0	0.5	0.0	2.7	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	17.9	0.0	26.4	0.0	18.0	0.0	22.5	0.0
1st-Term Q (Q1), veh/ln	2.4	0.0	3.6	0.0	1.2	0.0	3.1	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.8	0.0	0.0	0.0	0.3	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.6	0.0	4.4	0.0	1.2	0.0	3.4	0.0
%ile Storage Ratio (RQ%)	0.54	0.00	0.93	0.00	0.22	0.00	0.72	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	304	0	311	0	325	0	295
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	11.1	0.0	12.5	0.0	11.2	0.0	11.4
Cycle Q Clear Time (g_c), s	0.0	11.1	0.0	12.5	0.0	11.2	0.0	11.4
Lane Grp Cap (c), veh/h	0	507	0	377	0	595	0	416
V/C Ratio (X)	0.00	0.60	0.00	0.83	0.00	0.55	0.00	0.71
Avail Cap (c_a), veh/h	0	507	0	426	0	595	0	467
Upstream Filter (I)	0.00	1.00	0.00	0.82	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	23.1	0.0	28.2	0.0	20.3	0.0	26.4
Incr Delay (d2), s/veh	0.0	5.2	0.0	9.5	0.0	3.6	0.0	4.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	28.3	0.0	37.7	0.0	23.9	0.0	30.7
1st-Term Q (Q1), veh/ln	0.0	4.4	0.0	5.1	0.0	4.4	0.0	4.6
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	1.0	0.0	0.6	0.0	0.5

HCM 6th Signalized Intersection Capacity Analysis

7: Tapo St & Cochran St

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.1	0.0	6.1	0.0	5.0	0.0	5.1
%ile Storage Ratio (RQ%)	0.00	0.19	0.00	0.15	0.00	0.38	0.00	0.08
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data























Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	279	0	305	0	311	0	287
Grp Sat Flow (s), veh/h/ln	0	1587	0	1723	0	1680	0	1705
Q Serve Time (g_s), s	0.0	11.4	0.0	12.7	0.0	11.3	0.0	11.6
Cycle Q Clear Time (g_c), s	0.0	11.4	0.0	12.7	0.0	11.3	0.0	11.6
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.99	0.00	0.48	0.00	0.63	0.00	0.54
Lane Grp Cap (c), veh/h	0	453	0	366	0	563	0	399
V/C Ratio (X)	0.00	0.62	0.00	0.83	0.00	0.55	0.00	0.72
Avail Cap (c_a), veh/h	0	453	0	413	0	563	0	448
Upstream Filter (I)	0.00	1.00	0.00	0.82	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	23.2	0.0	28.3	0.0	20.4	0.0	26.5
Incr Delay (d2), s/veh	0.0	6.1	0.0	10.5	0.0	3.9	0.0	4.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	29.4	0.0	38.8	0.0	24.2	0.0	31.3
1st-Term Q (Q1), veh/ln	0.0	4.0	0.0	5.0	0.0	4.2	0.0	4.5
2nd-Term Q (Q2), veh/ln	0.0	0.8	0.0	1.1	0.0	0.6	0.0	0.5
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.8	0.0	6.1	0.0	4.8	0.0	5.1
%ile Storage Ratio (RQ%)	0.00	0.18	0.00	0.15	0.00	0.37	0.00	0.08
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	28.3
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
8: Sequoia Ave & Cochran St

07/23/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	440	105	321	580	87	185	276	432	112	301	52
Future Volume (veh/h)	39	440	105	321	580	87	185	276	432	112	301	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	629	150	459	829	124	264	394	474	160	430	74
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	72	622	148	476	1380	206	355	1363	608	293	1164	199
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.08	0.44	0.44	0.53	0.89	0.89	0.77	0.77	0.77	0.77	0.77	0.38
Unsig. Movement Delay												
Ln Grp Delay, s/veh	63.3	77.3	78.3	55.9	4.8	4.8	25.4	8.2	17.5	17.8	9.5	13.7
Ln Grp LOS	E	F	F	E	A	A	C	A	B	B	A	B
Approach Vol, veh/h		835			1412			1132			664	
Approach Delay, s/veh		76.8			21.4			16.1			13.1	
Approach LOS		E			C			B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			5.0	2.0	4.0		6.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			44.0	32.0	27.0		44.0	8.7	50.3			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			39.5	27.5	22.5		39.5	8.8	41.2			
Max Allow Headway (MAH), s			4.7	3.8	5.3		5.7	3.8	5.3			
Max Q Clear (g_c+I1), s			35.6	27.5	24.5		20.9	5.2	8.5			
Green Ext Time (g_e), s			2.1	0.0	0.0		4.4	0.0	7.4			
Prob of Phs Call (p_c)			1.00	1.00	1.00		1.00	0.80	1.00			
Prob of Max Out (p_x)			0.00	1.00	1.00		0.00	1.00	0.04			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			895	1781			638	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		2847		3035		3100			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		678		519		464			
Left Lane Group Data												
Assigned Mvmt		0	5	3	0	0	1	7	0			
Lane Assignment			L	L (Prot)			L	L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis
8: Sequoia Ave & Cochran St

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Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	264	459	0	0	160	56	0
Grp Sat Flow (s), veh/h/ln	0	895	1781	0	0	638	1781	0
Q Serve Time (g_s), s	0.0	26.9	25.5	0.0	0.0	15.5	3.2	0.0
Cycle Q Clear Time (g_c), s	0.0	33.6	25.5	0.0	0.0	18.9	3.2	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	895	0	0	0	638	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	39.5	0.0	0.0	0.0	39.5	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	32.8	0.0	0.0	0.0	36.1	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	26.9	0.0	0.0	0.0	15.5	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	355	476	0	0	293	72	0
V/C Ratio (X)	0.00	0.74	0.97	0.00	0.00	0.55	0.78	0.00
Avail Cap (c_a), veh/h	0	355	476	0	0	293	152	0
Upstream Filter (I)	0.00	0.83	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	14.3	23.5	0.0	0.0	10.6	46.9	0.0
Incr Delay (d2), s/veh	0.0	11.2	32.3	0.0	0.0	7.1	16.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	25.4	55.9	0.0	0.0	17.8	63.3	0.0
1st-Term Q (Q1), veh/ln	0.0	3.0	7.1	0.0	0.0	1.0	1.4	0.0
2nd-Term Q (Q2), veh/ln	0.0	1.1	4.3	0.0	0.0	0.6	0.3	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	4.1	11.4	0.0	0.0	1.6	1.7	0.0
%ile Storage Ratio (RQ%)	0.00	0.69	1.93	0.00	0.00	0.26	0.29	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	394	0	392	0	251	0	475
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	3.4	0.0	22.5	0.0	4.7	0.0	6.5
Cycle Q Clear Time (g_c), s	0.0	3.4	0.0	22.5	0.0	4.7	0.0	6.5
Lane Grp Cap (c), veh/h	0	1363	0	388	0	681	0	791
V/C Ratio (X)	0.00	0.29	0.00	1.01	0.00	0.37	0.00	0.60
Avail Cap (c_a), veh/h	0	1363	0	388	0	681	0	791
Upstream Filter (I)	0.00	0.83	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	7.8	0.0	29.0	0.0	7.9	0.0	3.5
Incr Delay (d2), s/veh	0.0	0.4	0.0	48.3	0.0	1.5	0.0	1.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.2	0.0	77.3	0.0	9.5	0.0	4.8
1st-Term Q (Q1), veh/ln	0.0	1.1	0.0	7.1	0.0	1.5	0.0	1.3
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	5.2	0.0	0.3	0.0	0.3

HCM 6th Signalized Intersection Capacity Analysis

8: Sequoia Ave & Cochran St

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.2	0.0	12.3	0.0	1.8	0.0	1.6
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.36	0.00	0.22	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	474	0	387	0	253	0	478
Grp Sat Flow (s), veh/h/ln	0	1585	0	1748	0	1777	0	1787
Q Serve Time (g_s), s	0.0	17.9	0.0	22.5	0.0	6.7	0.0	6.5
Cycle Q Clear Time (g_c), s	0.0	17.9	0.0	22.5	0.0	6.7	0.0	6.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.39	0.00	0.29	0.00	0.26
Lane Grp Cap (c), veh/h	0	608	0	382	0	681	0	795
V/C Ratio (X)	0.00	0.78	0.00	1.01	0.00	0.37	0.00	0.60
Avail Cap (c_a), veh/h	0	608	0	382	0	681	0	795
Upstream Filter (I)	0.00	0.83	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	9.5	0.0	29.0	0.0	12.1	0.0	3.5
Incr Delay (d2), s/veh	0.0	8.0	0.0	49.3	0.0	1.6	0.0	1.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.5	0.0	78.3	0.0	13.7	0.0	4.8
1st-Term Q (Q1), veh/ln	0.0	3.0	0.0	7.0	0.0	2.3	0.0	1.3
2nd-Term Q (Q2), veh/ln	0.0	1.4	0.0	5.2	0.0	0.3	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.3	0.0	12.2	0.0	2.6	0.0	1.6
%ile Storage Ratio (RQ%)	0.00	0.73	0.00	0.36	0.00	0.32	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	30.0
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

07/23/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	609	16	7	56	175	48	32	846	8	8	616	691
Future Volume (veh/h)	609	16	7	56	175	48	32	846	8	8	616	691
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	641	17	7	59	184	51	34	891	8	8	648	727
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	656	1005	388	76	269	136	205	1359	606	192	1290	575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.37	0.40	0.40	0.04	0.08	0.08	0.03	0.38	0.38	0.01	0.36	0.36
Unsig. Movement Delay												
Ln Grp Delay, s/veh	63.7	19.9	19.9	66.7	52.4	49.1	22.3	30.5	21.1	23.8	28.7	167.0
Ln Grp LOS	E	B	B	E	D	D	C	C	C	C	C	F
Approach Vol, veh/h		665			294			933			1383	
Approach Delay, s/veh		62.1			54.7			30.1			101.4	
Approach LOS		E			D			C			F	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	3.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		5.6	46.6	9.2	48.6	7.7	44.4	45.0	12.8			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		5.0	28.5	9.2	49.3	5.0	28.5	40.5	18.0			
Max Allow Headway (MAH), s		3.7	4.9	3.7	5.0	3.7	4.4	3.7	4.7			
Max Q Clear (g_c+I1), s		2.3	24.7	5.6	2.5	3.3	41.9	41.1	7.6			
Green Ext Time (g_e), s		0.0	1.9	0.0	0.1	0.0	0.0	0.0	0.8			
Prob of Phs Call (p_c)		0.22	1.00	0.84	1.00	0.65	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.04			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		2506		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		967		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	8	0	59	0	34	0	641	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	0.3	0.0	3.6	0.0	1.3	0.0	39.1	0.0
Cycle Q Clear Time (g_c), s	0.3	0.0	3.6	0.0	1.3	0.0	39.1	0.0
Perm LT Sat Flow (s_l), veh/h/ln	619	0	0	0	395	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	39.9	0.0	0.0	0.0	39.9	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	19.4	0.0	0.0	0.0	24.3	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.3	0.0	0.0	0.0	1.5	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	192	0	76	0	205	0	656	0
V/C Ratio (X)	0.04	0.00	0.77	0.00	0.17	0.00	0.98	0.00
Avail Cap (c_a), veh/h	255	0	149	0	234	0	656	0
Upstream Filter (I)	1.00	0.00	0.95	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	23.7	0.0	52.1	0.0	21.9	0.0	34.3	0.0
Incr Delay (d2), s/veh	0.1	0.0	14.6	0.0	0.4	0.0	29.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	23.8	0.0	66.7	0.0	22.3	0.0	63.7	0.0
1st-Term Q (Q1), veh/ln	0.1	0.0	1.6	0.0	0.5	0.0	15.7	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.3	0.0	0.0	0.0	5.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.1	0.0	1.9	0.0	0.5	0.0	21.1	0.0
%ile Storage Ratio (RQ%)	0.01	0.00	0.18	0.00	0.05	0.00	1.85	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	891	0	12	0	648	0	184
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	22.7	0.0	0.4	0.0	15.6	0.0	5.6
Cycle Q Clear Time (g_c), s	0.0	22.7	0.0	0.4	0.0	15.6	0.0	5.6
Lane Grp Cap (c), veh/h	0	1359	0	713	0	1290	0	269
V/C Ratio (X)	0.00	0.66	0.00	0.02	0.00	0.50	0.00	0.68
Avail Cap (c_a), veh/h	0	1359	0	796	0	1290	0	582
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.95
Uniform Delay (d1), s/veh	0.0	28.0	0.0	19.9	0.0	27.3	0.0	49.5
Incr Delay (d2), s/veh	0.0	2.5	0.0	0.0	0.0	1.4	0.0	2.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	30.5	0.0	19.9	0.0	28.7	0.0	52.4
1st-Term Q (Q1), veh/ln	0.0	9.1	0.0	0.2	0.0	6.3	0.0	2.4
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.3	0.0	0.1

HCM 6th Signalized Intersection Capacity Analysis

1: Tapo Canyon Rd & E Los Angeles Ave

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	9.6	0.0	0.2	0.0	6.5	0.0	2.5
%ile Storage Ratio (RQ%)	0.00	0.91	0.00	0.01	0.00	2.19	0.00	0.07
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data































Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	8	0	12	0	727	0	51
Grp Sat Flow (s), veh/h/ln	0	1585	0	1696	0	1585	0	1585
Q Serve Time (g_s), s	0.0	0.3	0.0	0.5	0.0	39.9	0.0	3.3
Cycle Q Clear Time (g_c), s	0.0	0.3	0.0	0.5	0.0	39.9	0.0	3.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.57	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	606	0	681	0	575	0	136
V/C Ratio (X)	0.00	0.01	0.00	0.02	0.00	1.26	0.00	0.38
Avail Cap (c_a), veh/h	0	606	0	760	0	575	0	275
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.95
Uniform Delay (d1), s/veh	0.0	21.1	0.0	19.9	0.0	35.0	0.0	47.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	132.0	0.0	1.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	21.1	0.0	19.9	0.0	167.0	0.0	49.1
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.2	0.0	14.4	0.0	1.3
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	21.1	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.2	0.0	35.5	0.0	1.3
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.01	0.00	2.65	0.00	0.21
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	37.9	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	68.9
HCM 6th LOS	E

HCM 6th Signalized Intersection Capacity Analysis
2: Tapo St & E Los Angeles Ave

07/23/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	 
Traffic Volume (veh/h)	587	18	47	1	12	10	62	154	8	9	118	527
Future Volume (veh/h)	587	18	47	1	12	10	62	154	8	9	118	527
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	631	19	51	1	13	11	67	166	9	10	127	567
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	605	426	380	3	129	96	495	1830	99	737	998	1123
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.17	0.24	0.24	0.00	0.07	0.07	0.53	0.53	0.53	0.53	0.53	0.53
Unsig. Movement Delay												
Ln Grp Delay, s/veh	73.2	17.6	18.1	85.9	26.7	26.8	8.8	7.0	7.0	7.3	7.3	5.6
Ln Grp LOS	F	B	B	F	C	C	A	A	A	A	A	A
Approach Vol, veh/h		701			25			242			704	
Approach Delay, s/veh		67.6			29.1			7.5			5.9	
Approach LOS		E			C			A			A	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	2.0	4.0		5.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			36.5	4.6	18.9		36.5	15.0	8.5			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			18.0	5.0	23.5		18.0	10.5	18.0			
Max Allow Headway (MAH), s			5.3	3.7	5.2		4.2	3.7	5.1			
Max Q Clear (g_c+I1), s			7.0	2.0	3.5		11.7	12.5	2.4			
Green Ext Time (g_e), s			0.9	0.0	0.3		1.6	0.0	0.0			
Prob of Phs Call (p_c)			1.00	0.02	1.00		1.00	1.00	0.79			
Prob of Max Out (p_x)			0.00	1.00	0.00		0.00	1.00	0.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			750	1781			1210	3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3429		1777		1870		1942			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			185		1585		1585		1445			
Left Lane Group Data												
Assigned Mvmt		0	5	3	0	0	1	7	0			
Lane Assignment			L	L (Prot)			L	L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis

2: Tapo St & E Los Angeles Ave

07/23/2020

Lanes in Grp	0	1	1	0	0	1	2	0
Grp Vol (v), veh/h	0	67	1	0	0	10	631	0
Grp Sat Flow (s), veh/h/ln	0	750	1781	0	0	1210	1728	0
Q Serve Time (g_s), s	0.0	2.9	0.0	0.0	0.0	0.2	10.5	0.0
Cycle Q Clear Time (g_c), s	0.0	5.0	0.0	0.0	0.0	1.7	10.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	750	0	0	0	1210	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	32.0	0.0	0.0	0.0	32.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	30.0	0.0	0.0	0.0	30.6	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	2.9	0.0	0.0	0.0	0.2	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	495	3	0	0	737	605	0
V/C Ratio (X)	0.00	0.14	0.34	0.00	0.00	0.01	1.04	0.00
Avail Cap (c_a), veh/h	0	495	148	0	0	737	605	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	8.2	29.9	0.0	0.0	7.3	24.8	0.0
Incr Delay (d2), s/veh	0.0	0.6	56.0	0.0	0.0	0.0	48.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.8	85.9	0.0	0.0	7.3	73.2	0.0
1st-Term Q (Q1), veh/ln	0.0	0.4	0.0	0.0	0.0	0.0	3.7	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	4.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.4	0.1	0.0	0.0	0.1	7.8	0.0
%ile Storage Ratio (RQ%)	0.00	0.17	0.01	0.00	0.00	0.01	0.76	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	6.6	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	86	0	19	0	127	0	12
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	1.4	0.0	0.5	0.0	2.0	0.0	0.4
Cycle Q Clear Time (g_c), s	0.0	1.4	0.0	0.5	0.0	2.0	0.0	0.4
Lane Grp Cap (c), veh/h	0	948	0	426	0	998	0	118
V/C Ratio (X)	0.00	0.09	0.00	0.04	0.00	0.13	0.00	0.10
Avail Cap (c_a), veh/h	0	948	0	696	0	998	0	533
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	6.9	0.0	17.5	0.0	7.0	0.0	26.3
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	0.3	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	7.0	0.0	17.6	0.0	7.3	0.0	26.7
1st-Term Q (Q1), veh/ln	0.0	0.4	0.0	0.2	0.0	0.6	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis 2: Tapo St & E Los Angeles Ave

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.4	0.0	0.2	0.0	0.7	0.0	0.2
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.00	0.00	0.17	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	89	0	51	0	567	0	12
Grp Sat Flow (s), veh/h/ln	0	1837	0	1585	0	1585	0	1610
Q Serve Time (g_s), s	0.0	1.4	0.0	1.5	0.0	9.7	0.0	0.4
Cycle Q Clear Time (g_c), s	0.0	1.4	0.0	1.5	0.0	9.7	0.0	0.4
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	10.5	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.10	0.00	1.00	0.00	1.00	0.00	0.90
Lane Grp Cap (c), veh/h	0	981	0	380	0	1123	0	107
V/C Ratio (X)	0.00	0.09	0.00	0.13	0.00	0.50	0.00	0.11
Avail Cap (c_a), veh/h	0	981	0	621	0	1123	0	483
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	6.9	0.0	17.9	0.0	4.0	0.0	26.4
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.2	0.0	1.6	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
Control Delay (d), s/veh	0.0	7.0	0.0	18.1	0.0	5.6	0.0	26.8
1st-Term Q (Q1), veh/ln	0.0	0.4	0.0	0.5	0.0	1.1	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.5	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.5	0.0	0.5	0.0	1.6	0.0	0.2
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.01	0.00	0.42	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	32.4
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
3: E Los Angeles Ave

07/23/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	2183	0	0	2183	0	0	481	0	0	481	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
Prop Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			0			0			0	
Approach Delay, s/veh		0.0			0.0			0.0			0.0	
Approach LOS												

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		8.0		8.0		8.0		8.0
Phs Duration (G+Y+Rc), s		47.5		22.5		47.5		22.5
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green (Gmax), s		43.0		18.0		43.0		18.0
Max Allow Headway (MAH), s		0.0		0.0		0.0		0.0
Max Q Clear (g_c+I1), s		0.0		0.0		0.0		0.0
Green Ext Time (g_e), s		0.0		0.0		0.0		0.0
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00

Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		0		0		0		0

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		3741		1870		3741		1870

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		0		0		0		0

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment								

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Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	43.0	0.0	18.0	0.0	43.0	0.0	18.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2183	0	481	0	2183	0	481
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	2183	0	481	0	2183	0	481
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data













Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	0.0
HCM 6th LOS	A

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	118	0	0	178	0
Future Volume (veh/h)	0	0	0	0	0	0	0	118	0	0	178	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	126	0	0	189	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	499	0	0	499	0	0	1122	0	0	1122	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
Prop Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.60	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	6.3	0.0
Ln Grp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			0			126			189	
Approach Delay, s/veh		0.0			0.0			6.0			6.3	
Approach LOS								A			A	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			45.0		22.5		45.0		22.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			40.5		18.0		40.5		18.0			
Max Allow Headway (MAH), s			5.1		0.0		5.1		0.0			
Max Q Clear (g_c+I1), s			4.0		0.0		5.0		0.0			
Green Ext Time (g_e), s			0.7		0.0		1.1		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1870		1870		1870		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

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Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	40.5	0.0	18.0	0.0	40.5	0.0	18.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	126	0	0	0	189	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	1870	0	1870	0	1870
Q Serve Time (g_s), s	0.0	2.0	0.0	0.0	0.0	3.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	2.0	0.0	0.0	0.0	3.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1122	0	499	0	1122	0	499
V/C Ratio (X)	0.00	0.11	0.00	0.00	0.00	0.17	0.00	0.00
Avail Cap (c_a), veh/h	0	1122	0	499	0	1122	0	499
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	5.8	0.0	0.0	0.0	6.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	0.3	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
Control Delay (d), s/veh	0.0	6.0	0.0	0.0	0.0	6.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	0.0	0.0	0.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.7	0.0	0.0	0.0	1.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.52	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	6.2
HCM 6th LOS	A

HCM 6th Signalized Intersection Capacity Analysis

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	461	536	91	36	224	45	50	352	11	45	313	340
Future Volume (veh/h)	461	536	91	36	224	45	50	352	11	45	313	340
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	490	570	97	38	238	48	53	374	12	48	333	362
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	605	1234	550	244	347	69	304	1576	50	472	797	711
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.27	0.35	0.35	0.04	0.12	0.12	0.45	0.45	0.45	0.45	0.45	0.45
Unsig. Movement Delay												
Ln Grp Delay, s/veh	24.6	20.6	18.3	29.6	37.7	38.2	23.2	14.3	14.3	16.3	16.1	17.6
Ln Grp LOS	C	C	B	C	D	D	C	B	B	B	B	B
Approach Vol, veh/h		1157			324			439			743	
Approach Delay, s/veh		22.1			37.0			15.4			16.9	
Approach LOS		C			D			B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	1.1	3.0		6.0	1.1	4.0			
Phs Duration (G+Y+Rc), s			40.4	7.4	32.3		40.4	25.7	13.9			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			18.5	6.2	42.3		18.5	30.5	18.0			
Max Allow Headway (MAH), s			5.3	3.8	5.1		5.4	3.8	5.3			
Max Q Clear (g_c+I1), s			19.4	3.5	12.0		15.1	20.0	8.3			
Green Ext Time (g_e), s			0.0	0.0	4.6		1.5	1.3	1.1			
Prob of Phs Call (p_c)			1.00	0.57	1.00		1.00	1.00	1.00			
Prob of Max Out (p_x)			0.00	1.00	0.00		0.00	0.05	0.18			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			750	1781			997	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3514		3554		1777		2956			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			113		1585		1585		586			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

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Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	53	38	0	0	48	490	0
Grp Sat Flow (s), veh/h/ln	0	750	1781	0	0	997	1781	0
Q Serve Time (g_s), s	0.0	4.4	1.5	0.0	0.0	2.5	18.0	0.0
Cycle Q Clear Time (g_c), s	0.0	17.4	1.5	0.0	0.0	7.8	18.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	750	769	0	0	997	1093	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	35.9	9.4	0.0	0.0	35.9	11.4	0.0
Perm LT Serve Time (g_u), s	0.0	22.8	9.4	0.0	0.0	30.6	3.1	0.0
Perm LT Q Serve Time (g_ps), s	0.0	4.4	0.0	0.0	0.0	2.5	3.1	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	304	244	0	0	472	605	0
V/C Ratio (X)	0.00	0.17	0.16	0.00	0.00	0.10	0.81	0.00
Avail Cap (c_a), veh/h	0	304	318	0	0	472	811	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.72	1.00	0.00
Uniform Delay (d1), s/veh	0.0	22.0	29.3	0.0	0.0	16.0	20.0	0.0
Incr Delay (d2), s/veh	0.0	1.2	0.3	0.0	0.0	0.3	4.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	23.2	29.6	0.0	0.0	16.3	24.6	0.0
1st-Term Q (Q1), veh/ln	0.0	0.7	0.6	0.0	0.0	0.5	6.9	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.8	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.8	0.6	0.0	0.0	0.6	7.7	0.0
%ile Storage Ratio (RQ%)	0.00	0.21	0.11	0.00	0.00	0.10	1.15	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	1
Grp Vol (v), veh/h	0	189	0	570	0	333	0	141
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	5.2	0.0	10.0	0.0	10.2	0.0	6.1
Cycle Q Clear Time (g_c), s	0.0	5.2	0.0	10.0	0.0	10.2	0.0	6.1
Lane Grp Cap (c), veh/h	0	797	0	1234	0	797	0	208
V/C Ratio (X)	0.00	0.24	0.00	0.46	0.00	0.42	0.00	0.68
Avail Cap (c_a), veh/h	0	797	0	1879	0	797	0	400
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.72	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.6	0.0	20.3	0.0	15.0	0.0	33.9
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.3	0.0	1.2	0.0	3.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.3	0.0	20.6	0.0	16.1	0.0	37.7
1st-Term Q (Q1), veh/ln	0.0	2.0	0.0	4.0	0.0	3.8	0.0	2.6
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.3	0.0	0.2

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.1	0.0	4.0	0.0	4.1	0.0	2.8
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.17	0.00	0.07	0.00	0.07
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	197	0	97	0	362	0	145
Grp Sat Flow (s), veh/h/ln	0	1850	0	1585	0	1585	0	1765
Q Serve Time (g_s), s	0.0	5.3	0.0	3.4	0.0	13.1	0.0	6.3
Cycle Q Clear Time (g_c), s	0.0	5.3	0.0	3.4	0.0	13.1	0.0	6.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.06	0.00	1.00	0.00	1.00	0.00	0.33
Lane Grp Cap (c), veh/h	0	830	0	550	0	711	0	207
V/C Ratio (X)	0.00	0.24	0.00	0.18	0.00	0.51	0.00	0.70
Avail Cap (c_a), veh/h	0	830	0	838	0	711	0	397
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.72	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.6	0.0	18.2	0.0	15.8	0.0	33.9
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.2	0.0	1.9	0.0	4.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.3	0.0	18.3	0.0	17.6	0.0	38.2
1st-Term Q (Q1), veh/ln	0.0	2.1	0.0	1.2	0.0	4.4	0.0	2.6
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.4	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.2	0.0	1.2	0.0	4.8	0.0	2.9
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.21	0.00	0.08	0.00	0.07
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	21.3
HCM 6th LOS	C

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	535	701	50	187	515	388	79	1119	187	340	904	600
Future Volume (veh/h)	535	701	50	187	515	388	79	1119	187	340	904	600
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	557	730	52	195	536	404	82	1166	195	354	942	625
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	406	1080	482	384	1080	482	343	1256	560	296	1256	560
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.09	0.30	0.30	0.09	0.30	0.30	0.35	0.35	0.35	0.35	0.35	0.35
Unsig. Movement Delay												
Ln Grp Delay, s/veh	200.7	17.8	13.6	13.2	15.7	26.5	25.6	30.0	14.6	143.5	19.5	91.4
Ln Grp LOS	F	B	B	B	B	C	C	C	B	F	B	F
Approach Vol, veh/h		1339			1135			1443			1921	
Approach Delay, s/veh		93.7			19.1			27.7			65.8	
Approach LOS		F			B			C			E	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			5.0	1.1	3.0		5.0	1.1	3.0			
Phs Duration (G+Y+Rc), s			23.6	9.5	20.9		23.6	9.5	20.9			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			18.0	5.0	18.0		18.0	5.0	18.0			
Max Allow Headway (MAH), s			5.5	3.8	5.2		5.7	3.8	4.7			
Max Q Clear (g_c+I1), s			21.1	6.0	11.7		21.1	7.0	14.9			
Green Ext Time (g_e), s			0.0	0.0	2.7		0.0	0.0	1.6			
Prob of Phs Call (p_c)			1.00	0.95	1.00		1.00	1.00	1.00			
Prob of Max Out (p_x)			0.00	1.00	0.82		0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			636	1781			776	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		1585		1585			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

HCM 6th Signalized Intersection Capacity Analysis

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Lanes in Grp	0	2	1	0	0	2	1	0
Grp Vol (v), veh/h	0	82	195	0	0	354	557	0
Grp Sat Flow (s), veh/h/ln	0	318	1781	0	0	388	1781	0
Q Serve Time (g_s), s	0.0	6.5	4.0	0.0	0.0	2.0	5.0	0.0
Cycle Q Clear Time (g_c), s	0.0	19.1	4.0	0.0	0.0	19.1	5.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	318	691	0	0	388	596	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	19.1	16.4	0.0	0.0	19.1	16.4	0.0
Perm LT Serve Time (g_u), s	0.0	6.5	6.7	0.0	0.0	2.0	9.7	0.0
Perm LT Q Serve Time (g_ps), s	0.0	6.5	3.8	0.0	0.0	2.0	9.7	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	343	384	0	0	296	406	0
V/C Ratio (X)	0.00	0.24	0.51	0.00	0.00	1.20	1.37	0.00
Avail Cap (c_a), veh/h	0	343	384	0	0	296	406	0
Upstream Filter (I)	0.00	1.00	0.82	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	24.0	12.3	0.0	0.0	26.9	18.0	0.0
Incr Delay (d2), s/veh	0.0	1.6	0.9	0.0	0.0	116.6	182.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	25.6	13.2	0.0	0.0	143.5	200.7	0.0
1st-Term Q (Q1), veh/ln	0.0	0.5	1.3	0.0	0.0	1.8	2.5	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.1	0.0	0.0	4.8	20.6	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.6	1.4	0.0	0.0	6.6	23.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.09	0.12	0.00	0.00	1.67	1.95	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	14.5	37.8	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	2	0	2
Grp Vol (v), veh/h	0	1166	0	730	0	942	0	536
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	17.1	0.0	9.7	0.0	12.6	0.0	6.7
Cycle Q Clear Time (g_c), s	0.0	17.1	0.0	9.7	0.0	12.6	0.0	6.7
Lane Grp Cap (c), veh/h	0	1256	0	1080	0	1256	0	1080
V/C Ratio (X)	0.00	0.93	0.00	0.68	0.00	0.75	0.00	0.50
Avail Cap (c_a), veh/h	0	1256	0	1185	0	1256	0	1185
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.82
Uniform Delay (d1), s/veh	0.0	16.8	0.0	16.5	0.0	15.4	0.0	15.4
Incr Delay (d2), s/veh	0.0	13.2	0.0	1.4	0.0	4.2	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
Control Delay (d), s/veh	0.0	30.0	0.0	17.8	0.0	19.5	0.0	15.7
1st-Term Q (Q1), veh/ln	0.0	5.9	0.0	3.5	0.0	4.4	0.0	2.4
2nd-Term Q (Q2), veh/ln	0.0	2.3	0.0	0.2	0.0	0.7	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	8.2	0.0	3.7	0.0	5.1	0.0	2.4
%ile Storage Ratio (RQ%)	0.00	0.25	0.00	0.27	0.00	0.58	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	195	0	52	0	625	0	404
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	4.9	0.0	1.3	0.0	19.1	0.0	12.9
Cycle Q Clear Time (g_c), s	0.0	4.9	0.0	1.3	0.0	19.1	0.0	12.9
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	560	0	482	0	560	0	482
V/C Ratio (X)	0.00	0.35	0.00	0.11	0.00	1.12	0.00	0.84
Avail Cap (c_a), veh/h	0	560	0	528	0	560	0	528
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.82
Uniform Delay (d1), s/veh	0.0	12.9	0.0	13.5	0.0	17.5	0.0	17.6
Incr Delay (d2), s/veh	0.0	1.7	0.0	0.1	0.0	74.0	0.0	8.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.6	0.0	13.6	0.0	91.4	0.0	26.5
1st-Term Q (Q1), veh/ln	0.0	1.5	0.0	0.4	0.0	5.9	0.0	4.1
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	11.5	0.0	1.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.8	0.0	0.4	0.0	17.4	0.0	5.3
%ile Storage Ratio (RQ%)	0.00	0.28	0.00	0.15	0.00	2.21	0.00	0.13
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	16.2	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	53.7
HCM 6th LOS	D

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	190	540	182	289	403	90	226	421	422	104	340	129
Future Volume (veh/h)	190	540	182	289	403	90	226	421	422	104	340	129
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	202	574	194	307	429	96	240	448	449	111	362	137
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	433	639	216	371	837	186	455	609	543	259	735	274
HCM Platoon Ratio	1.00	1.00	1.00	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66
Prop Arrive On Green	0.11	0.25	0.25	0.25	0.48	0.48	0.19	0.57	0.57	0.10	0.48	0.48
Unsig. Movement Delay												
Ln Grp Delay, s/veh	21.9	44.0	44.8	30.6	19.8	19.8	17.5	24.1	30.6	22.1	22.1	22.5
Ln Grp LOS	C	D	D	C	B	B	B	C	C	C	C	C
Approach Vol, veh/h		970			832			1137			610	
Approach Delay, s/veh		39.7			23.8			25.3			22.2	
Approach LOS		D			C			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		10.0	35.4	18.1	26.6	14.8	30.6	14.1	30.6			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		6.2	26.4	16.5	22.9	11.5	21.1	12.4	27.0			
Max Allow Headway (MAH), s		3.8	5.4	3.8	5.3	3.8	5.3	3.8	5.3			
Max Q Clear (g_c+I1), s		5.9	22.7	13.3	21.2	10.2	10.9	9.5	11.3			
Green Ext Time (g_e), s		0.0	2.0	0.3	0.8	0.1	2.2	0.2	2.9			
Prob of Phs Call (p_c)		0.94	1.00	1.00	1.00	1.00	1.00	0.99	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.08			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1777		2609		2533		2890			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		880		944		642			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)				

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	111	0	307	0	240	0	202	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	3.9	0.0	11.3	0.0	8.2	0.0	7.5	0.0
Cycle Q Clear Time (g_c), s	3.9	0.0	11.3	0.0	8.2	0.0	7.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	621	0	700	0	899	0	878	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	26.1	0.0	23.6	0.0	28.1	0.0	22.1	0.0
Perm LT Serve Time (g_u), s	10.1	0.0	2.8	0.0	17.2	0.0	16.8	0.0
Perm LT Q Serve Time (g_ps), s	3.3	0.0	2.8	0.0	3.5	0.0	1.6	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	259	0	371	0	455	0	433	0
V/C Ratio (X)	0.43	0.00	0.83	0.00	0.53	0.00	0.47	0.00
Avail Cap (c_a), veh/h	273	0	429	0	479	0	489	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.49	0.00
Uniform Delay (d1), s/veh	21.0	0.0	19.3	0.0	16.5	0.0	21.6	0.0
Incr Delay (d2), s/veh	1.1	0.0	11.4	0.0	1.0	0.0	0.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	22.1	0.0	30.6	0.0	17.5	0.0	21.9	0.0
1st-Term Q (Q1), veh/ln	1.5	0.0	3.8	0.0	2.9	0.0	3.0	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	1.2	0.0	0.1	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	1.6	0.0	4.9	0.0	3.0	0.0	3.1	0.0
%ile Storage Ratio (RQ%)	0.33	0.00	1.04	0.00	0.54	0.00	0.65	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	448	0	390	0	252	0	262
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	16.8	0.0	19.1	0.0	8.7	0.0	9.1
Cycle Q Clear Time (g_c), s	0.0	16.8	0.0	19.1	0.0	8.7	0.0	9.1
Lane Grp Cap (c), veh/h	0	609	0	435	0	516	0	514
V/C Ratio (X)	0.00	0.74	0.00	0.90	0.00	0.49	0.00	0.51
Avail Cap (c_a), veh/h	0	609	0	452	0	516	0	533
Upstream Filter (I)	0.00	1.00	0.00	0.49	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.4	0.0	32.9	0.0	18.8	0.0	19.0
Incr Delay (d2), s/veh	0.0	7.7	0.0	11.2	0.0	3.3	0.0	0.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	24.1	0.0	44.0	0.0	22.1	0.0	19.8
1st-Term Q (Q1), veh/ln	0.0	4.8	0.0	8.0	0.0	3.0	0.0	3.2
2nd-Term Q (Q2), veh/ln	0.0	1.3	0.0	1.3	0.0	0.5	0.0	0.1

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.1	0.0	9.4	0.0	3.5	0.0	3.3
%ile Storage Ratio (RQ%)	0.00	0.14	0.00	0.23	0.00	0.27	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	449	0	378	0	247	0	263
Grp Sat Flow (s), veh/h/ln	0	1585	0	1712	0	1700	0	1755
Q Serve Time (g_s), s	0.0	20.7	0.0	19.2	0.0	8.9	0.0	9.3
Cycle Q Clear Time (g_c), s	0.0	20.7	0.0	19.2	0.0	8.9	0.0	9.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.51	0.00	0.56	0.00	0.37
Lane Grp Cap (c), veh/h	0	543	0	419	0	493	0	508
V/C Ratio (X)	0.00	0.83	0.00	0.90	0.00	0.50	0.00	0.52
Avail Cap (c_a), veh/h	0	543	0	436	0	493	0	526
Upstream Filter (I)	0.00	1.00	0.00	0.49	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	17.2	0.0	32.9	0.0	18.9	0.0	19.0
Incr Delay (d2), s/veh	0.0	13.4	0.0	11.9	0.0	3.6	0.0	0.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	30.6	0.0	44.8	0.0	22.5	0.0	19.8
1st-Term Q (Q1), veh/ln	0.0	5.1	0.0	7.7	0.0	3.0	0.0	3.2
2nd-Term Q (Q2), veh/ln	0.0	2.0	0.0	1.4	0.0	0.5	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	7.1	0.0	9.1	0.0	3.5	0.0	3.3
%ile Storage Ratio (RQ%)	0.00	0.16	0.00	0.23	0.00	0.27	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	28.4
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	835	213	395	636	75	216	289	361	64	197	65
Future Volume (veh/h)	75	835	213	395	636	75	216	289	361	64	197	65
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	870	222	411	662	78	225	301	376	67	205	68
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	391	926	236	441	1536	181	402	1200	535	298	892	288
HCM Platoon Ratio	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66
Prop Arrive On Green	0.07	0.55	0.55	0.32	0.80	0.80	0.56	0.56	0.56	0.56	0.56	0.56
Unsig. Movement Delay												
Ln Grp Delay, s/veh	19.6	43.6	44.1	42.0	6.2	6.2	24.7	15.6	24.3	19.3	16.0	16.1
Ln Grp LOS	B	D	D	D	A	A	C	B	C	B	B	B
Approach Vol, veh/h		1170			1151			902			340	
Approach Delay, s/veh		42.2			19.0			21.5			16.7	
Approach LOS		D			B			C			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			5.0	1.1	4.0		6.0	1.1	4.0			
Phs Duration (G+Y+Rc), s			37.6	23.6	36.9		37.6	8.9	51.5			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			27.9	23.5	33.5		27.9	5.8	51.2			
Max Allow Headway (MAH), s			4.5	3.8	5.3		5.4	3.8	5.3			
Max Q Clear (g_c+I1), s			21.2	18.4	30.4		11.4	4.8	8.3			
Green Ext Time (g_e), s			2.5	0.6	2.0		1.8	0.0	5.4			
Prob of Phs Call (p_c)			1.00	1.00	1.00		1.00	0.88	1.00			
Prob of Max Out (p_x)			0.00	0.53	1.00		0.00	1.00	0.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			1106	1781			762	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		2804		2642		3202			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		715		852		377			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

HCM 6th Signalized Intersection Capacity Analysis

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Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	225	411	0	0	67	78	0
Grp Sat Flow (s), veh/h/ln	0	1106	1781	0	0	762	1781	0
Q Serve Time (g_s), s	0.0	15.2	16.4	0.0	0.0	5.2	2.8	0.0
Cycle Q Clear Time (g_c), s	0.0	19.2	16.4	0.0	0.0	9.4	2.8	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1106	516	0	0	762	719	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	33.1	34.4	0.0	0.0	33.1	32.4	0.0
Perm LT Serve Time (g_u), s	0.0	29.1	4.0	0.0	0.0	28.8	32.4	0.0
Perm LT Q Serve Time (g_ps), s	0.0	15.2	4.0	0.0	0.0	5.2	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	402	441	0	0	298	391	0
V/C Ratio (X)	0.00	0.56	0.93	0.00	0.00	0.22	0.20	0.00
Avail Cap (c_a), veh/h	0	402	522	0	0	298	416	0
Upstream Filter (I)	0.00	0.84	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	20.0	20.1	0.0	0.0	17.6	19.4	0.0
Incr Delay (d2), s/veh	0.0	4.7	21.9	0.0	0.0	1.7	0.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	24.7	42.0	0.0	0.0	19.3	19.6	0.0
1st-Term Q (Q1), veh/ln	0.0	3.0	5.0	0.0	0.0	0.8	1.1	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	2.7	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.6	7.6	0.0	0.0	0.9	1.1	0.0
%ile Storage Ratio (RQ%)	0.00	0.60	1.29	0.00	0.00	0.15	0.19	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	301	0	551	0	136	0	367
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	4.2	0.0	28.3	0.0	3.8	0.0	6.3
Cycle Q Clear Time (g_c), s	0.0	4.2	0.0	28.3	0.0	3.8	0.0	6.3
Lane Grp Cap (c), veh/h	0	1200	0	587	0	600	0	852
V/C Ratio (X)	0.00	0.25	0.00	0.94	0.00	0.23	0.00	0.43
Avail Cap (c_a), veh/h	0	1200	0	607	0	600	0	928
Upstream Filter (I)	0.00	0.84	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.2	0.0	21.2	0.0	15.1	0.0	5.8
Incr Delay (d2), s/veh	0.0	0.4	0.0	22.4	0.0	0.9	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.6	0.0	43.6	0.0	16.0	0.0	6.2
1st-Term Q (Q1), veh/ln	0.0	1.6	0.0	8.5	0.0	1.4	0.0	1.8
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	3.6	0.0	0.1	0.0	0.1

HCM 6th Signalized Intersection Capacity Analysis

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.7	0.0	12.2	0.0	1.6	0.0	1.8
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.36	0.00	0.18	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	376	0	541	0	137	0	373
Grp Sat Flow (s), veh/h/ln	0	1585	0	1742	0	1717	0	1803
Q Serve Time (g_s), s	0.0	16.9	0.0	28.4	0.0	4.0	0.0	6.3
Cycle Q Clear Time (g_c), s	0.0	16.9	0.0	28.4	0.0	4.0	0.0	6.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.41	0.00	0.50	0.00	0.21
Lane Grp Cap (c), veh/h	0	535	0	575	0	580	0	865
V/C Ratio (X)	0.00	0.70	0.00	0.94	0.00	0.24	0.00	0.43
Avail Cap (c_a), veh/h	0	535	0	595	0	580	0	942
Upstream Filter (I)	0.00	0.84	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	18.0	0.0	21.2	0.0	15.1	0.0	5.8
Incr Delay (d2), s/veh	0.0	6.4	0.0	22.9	0.0	1.0	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
Control Delay (d), s/veh	0.0	24.3	0.0	44.1	0.0	16.1	0.0	6.2
1st-Term Q (Q1), veh/ln	0.0	4.5	0.0	8.4	0.0	1.5	0.0	1.8
2nd-Term Q (Q2), veh/ln	0.0	0.9	0.0	3.7	0.0	0.2	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.4	0.0	12.0	0.0	1.6	0.0	1.9
%ile Storage Ratio (RQ%)	0.00	0.92	0.00	0.35	0.00	0.18	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	27.0
HCM 6th LOS	C

PHASE 3 - Mitigation

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

07/24/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	351	10	36	58	222	34	14	675	7	9	781	784
Future Volume (veh/h)	351	10	36	58	222	34	14	675	7	9	781	784
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	418	12	43	69	264	40	17	804	8	11	930	933
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	465	336	299	89	371	186	236	1947	869	450	1926	859
HCM Platoon Ratio	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.00
Prop Arrive On Green	0.22	0.31	0.31	0.08	0.17	0.17	0.03	0.91	0.91	0.02	0.90	0.54
Unsig. Movement Delay												
Ln Grp Delay, s/veh	54.6	25.2	25.9	53.8	38.4	33.7	8.9	2.6	1.9	8.9	3.1	77.3
Ln Grp LOS	D	C	C	D	D	C	A	A	A	A	A	F
Approach Vol, veh/h		473			373			829			1874	
Approach Delay, s/veh		51.2			40.7			2.7			40.1	
Approach LOS		D			D			A			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	3.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		5.7	53.8	9.0	21.5	6.2	53.3	16.6	13.9			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		5.1	36.8	9.1	21.0	5.0	36.9	12.1	18.0			
Max Allow Headway (MAH), s		3.7	4.9	3.7	5.2	3.7	4.4	3.7	4.8			
Max Q Clear (g_c+I1), s		2.2	4.9	5.4	3.8	2.4	50.8	12.6	8.3			
Green Ext Time (g_e), s		0.0	5.7	0.0	0.2	0.0	0.0	0.0	1.1			
Prob of Phs Call (p_c)		0.24	1.00	0.82	1.00	0.35	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.10			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		1777		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

07/24/2020

Lanes in Grp	1	0	1	0	1	0	2	0
Grp Vol (v), veh/h	11	0	69	0	17	0	418	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1728	0
Q Serve Time (g_s), s	0.2	0.0	3.4	0.0	0.4	0.0	10.6	0.0
Cycle Q Clear Time (g_c), s	0.2	0.0	3.4	0.0	0.4	0.0	10.6	0.0
Perm LT Sat Flow (s_l), veh/h/ln	672	0	0	0	246	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	48.8	0.0	0.0	0.0	48.8	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	46.4	0.0	0.0	0.0	44.6	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	450	0	89	0	236	0	465	0
V/C Ratio (X)	0.02	0.00	0.78	0.00	0.07	0.00	0.90	0.00
Avail Cap (c_a), veh/h	527	0	180	0	301	0	465	0
Upstream Filter (I)	1.00	0.00	0.96	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	8.9	0.0	40.8	0.0	8.7	0.0	34.4	0.0
Incr Delay (d2), s/veh	0.0	0.0	13.1	0.0	0.1	0.0	20.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	8.9	0.0	53.8	0.0	8.9	0.0	54.6	0.0
1st-Term Q (Q1), veh/ln	0.1	0.0	1.4	0.0	0.1	0.0	3.8	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.3	0.0	0.0	0.0	1.3	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.1	0.0	1.7	0.0	0.1	0.0	5.1	0.0
%ile Storage Ratio (RQ%)	0.01	0.00	0.16	0.00	0.01	0.00	0.45	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	804	0	12	0	930	0	264
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	2.9	0.0	0.4	0.0	4.2	0.0	6.3
Cycle Q Clear Time (g_c), s	0.0	2.9	0.0	0.4	0.0	4.2	0.0	6.3
Lane Grp Cap (c), veh/h	0	1947	0	336	0	1926	0	371
V/C Ratio (X)	0.00	0.41	0.00	0.04	0.00	0.48	0.00	0.71
Avail Cap (c_a), veh/h	0	1947	0	415	0	1926	0	711
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.96
Uniform Delay (d1), s/veh	0.0	2.0	0.0	25.2	0.0	2.3	0.0	35.9
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.0	0.0	0.9	0.0	2.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	2.6	0.0	25.2	0.0	3.1	0.0	38.4
1st-Term Q (Q1), veh/ln	0.0	0.7	0.0	0.2	0.0	0.9	0.0	2.5
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.1

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.8	0.0	0.2	0.0	1.1	0.0	2.6
%ile Storage Ratio (RQ%)	0.00	0.08	0.00	0.01	0.00	0.36	0.00	0.07
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data































Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	8	0	43	0	933	0	40
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	1.8	0.0	48.8	0.0	1.9
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	1.8	0.0	48.8	0.0	1.9
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	869	0	299	0	859	0	186
V/C Ratio (X)	0.00	0.01	0.00	0.14	0.00	1.09	0.00	0.21
Avail Cap (c_a), veh/h	0	869	0	370	0	859	0	338
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.96
Uniform Delay (d1), s/veh	0.0	1.8	0.0	25.7	0.0	20.6	0.0	33.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	56.7	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
Control Delay (d), s/veh	0.0	1.9	0.0	25.9	0.0	77.3	0.0	33.7
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.6	0.0	14.8	0.0	0.7
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	13.5	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.6	0.0	28.3	0.0	0.7
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.02	0.00	2.12	0.00	0.12
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	18.5	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	32.9
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
6: Tapo Canyon Rd & Cochran St

07/24/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 		 	 		 	 	
Traffic Volume (veh/h)	544	457	81	180	463	313	54	851	141	223	1039	446
Future Volume (veh/h)	544	457	81	180	463	313	54	851	141	223	1039	446
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	648	544	96	214	551	254	64	1013	168	265	1237	412
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	657	782	138	376	660	294	153	1196	533	303	1350	904
HCM Platoon Ratio	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.00
Prop Arrive On Green	0.32	0.43	0.43	0.19	0.31	0.31	0.07	0.56	0.56	0.15	0.63	0.38
Unsig. Movement Delay												
Ln Grp Delay, s/veh	62.4	26.7	26.9	24.6	36.1	46.1	42.4	25.4	15.8	61.3	26.6	12.9
Ln Grp LOS	E	C	C	C	D	D	D	C	B	E	C	B
Approach Vol, veh/h		1288			1019			1245			1914	
Approach Delay, s/veh		44.7			36.2			25.0			28.4	
Approach LOS		D			D			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		2.0	3.0	1.1	4.0	2.0	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		12.4	34.8	15.0	27.8	8.5	38.7	21.6	21.2			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		7.9	29.0	10.5	24.6	5.0	31.9	17.1	18.0			
Max Allow Headway (MAH), s		3.8	5.1	3.8	5.3	3.8	4.9	3.8	4.9			
Max Q Clear (g_c+1), s		8.8	23.5	10.6	15.2	3.6	29.4	18.8	15.6			
Green Ext Time (g_e), s		0.0	3.4	0.0	2.7	0.0	2.0	0.0	1.1			
Prob of Phs Call (p_c)		1.00	1.00	1.00	1.00	0.80	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.45	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		3456		1781		3456		3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3020		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		531		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Prot)		L (Pr/Pm)		L (Prot)		L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis
6: Tapo Canyon Rd & Cochran St

07/24/2020

Lanes in Grp	2	0	1	0	2	0	2	0
Grp Vol (v), veh/h	265	0	214	0	64	0	648	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	1728	0
Q Serve Time (g_s), s	6.8	0.0	8.6	0.0	1.6	0.0	16.8	0.0
Cycle Q Clear Time (g_c), s	6.8	0.0	8.6	0.0	1.6	0.0	16.8	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	789	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	16.7	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	10.1	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	303	0	376	0	153	0	657	0
V/C Ratio (X)	0.87	0.00	0.57	0.00	0.42	0.00	0.99	0.00
Avail Cap (c_a), veh/h	303	0	376	0	192	0	657	0
Upstream Filter (I)	1.00	0.00	0.76	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	38.0	0.0	23.0	0.0	40.6	0.0	30.7	0.0
Incr Delay (d2), s/veh	23.3	0.0	1.5	0.0	1.8	0.0	31.7	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	61.3	0.0	24.6	0.0	42.4	0.0	62.4	0.0
1st-Term Q (Q1), veh/ln	2.7	0.0	3.2	0.0	0.7	0.0	5.8	0.0
2nd-Term Q (Q2), veh/ln	1.0	0.0	0.2	0.0	0.0	0.0	2.9	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	3.6	0.0	3.3	0.0	0.7	0.0	8.7	0.0
%ile Storage Ratio (RQ%)	0.93	0.00	0.28	0.00	0.11	0.00	0.73	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	1013	0	319	0	1237	0	551
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	21.5	0.0	13.1	0.0	27.4	0.0	13.0
Cycle Q Clear Time (g_c), s	0.0	21.5	0.0	13.1	0.0	27.4	0.0	13.0
Lane Grp Cap (c), veh/h	0	1196	0	460	0	1350	0	660
V/C Ratio (X)	0.00	0.85	0.00	0.69	0.00	0.92	0.00	0.84
Avail Cap (c_a), veh/h	0	1196	0	486	0	1350	0	711
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.76
Uniform Delay (d1), s/veh	0.0	17.9	0.0	22.8	0.0	15.4	0.0	29.9
Incr Delay (d2), s/veh	0.0	7.5	0.0	4.0	0.0	11.2	0.0	6.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	25.4	0.0	26.7	0.0	26.6	0.0	36.1
1st-Term Q (Q1), veh/ln	0.0	6.0	0.0	4.5	0.0	6.5	0.0	4.7
2nd-Term Q (Q2), veh/ln	0.0	1.2	0.0	0.5	0.0	2.1	0.0	0.6

HCM 6th Signalized Intersection Capacity Analysis
 6: Tapo Canyon Rd & Cochran St

07/24/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	7.2	0.0	5.0	0.0	8.6	0.0	5.3
%ile Storage Ratio (RQ%)	0.00	0.45	0.00	0.18	0.00	1.05	0.00	0.13
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	168	0	321	0	412	0	254
Grp Sat Flow (s), veh/h/ln	0	1585	0	1775	0	1585	0	1585
Q Serve Time (g_s), s	0.0	5.1	0.0	13.2	0.0	13.6	0.0	13.6
Cycle Q Clear Time (g_c), s	0.0	5.1	0.0	13.2	0.0	13.6	0.0	13.6
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	17.1	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.30	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	533	0	460	0	904	0	294
V/C Ratio (X)	0.00	0.31	0.00	0.70	0.00	0.46	0.00	0.86
Avail Cap (c_a), veh/h	0	533	0	485	0	904	0	317
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.76
Uniform Delay (d1), s/veh	0.0	14.3	0.0	22.8	0.0	11.2	0.0	30.1
Incr Delay (d2), s/veh	0.0	1.5	0.0	4.1	0.0	1.7	0.0	16.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.8	0.0	26.9	0.0	12.9	0.0	46.1
1st-Term Q (Q1), veh/ln	0.0	1.6	0.0	4.5	0.0	4.4	0.0	4.4
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.5	0.0	0.4	0.0	1.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.9	0.0	5.0	0.0	4.8	0.0	5.7
%ile Storage Ratio (RQ%)	0.00	0.30	0.00	0.19	0.00	0.61	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	32.9
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

07/24/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	609	16	7	56	175	48	32	846	8	8	616	691
Future Volume (veh/h)	609	16	7	56	175	48	32	846	8	8	616	691
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	641	17	7	59	184	51	34	891	8	8	648	727
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	712	616	238	81	304	152	278	1682	750	292	1601	714
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.21	0.25	0.25	0.05	0.09	0.09	0.03	0.47	0.47	0.01	0.45	0.45
Unsig. Movement Delay												
Ln Grp Delay, s/veh	45.5	22.9	22.9	48.7	37.1	35.0	11.7	16.0	11.2	12.7	15.5	60.3
Ln Grp LOS	D	C	C	D	D	D	B	B	B	B	B	F
Approach Vol, veh/h		665			294			933			1383	
Approach Delay, s/veh		44.7			39.1			15.8			39.1	
Approach LOS		D			D			B			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	3.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		5.3	42.4	8.2	24.2	7.2	40.5	21.0	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 (Gmax), s		5.0	22.5	6.9	27.6	5.0	22.5	16.5	18.0			
Max Allow Headway (MAH), s		3.7	4.9	3.7	5.0	3.7	4.4	3.7	4.7			
Max Q Clear (g_c+I1), s		2.2	16.1	4.6	2.4	2.8	38.0	16.5	6.0			
Green Ext Time (g_e), s		0.0	2.9	0.0	0.1	0.0	0.0	0.0	0.8			
Prob of Phs Call (p_c)		0.16	1.00	0.73	1.00	0.53	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.02			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		2506		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		967		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

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Lanes in Grp	1	0	1	0	1	0	2	0
Grp Vol (v), veh/h	8	0	59	0	34	0	641	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1728	0
Q Serve Time (g_s), s	0.2	0.0	2.6	0.0	0.8	0.0	14.5	0.0
Cycle Q Clear Time (g_c), s	0.2	0.0	2.6	0.0	0.8	0.0	14.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	619	0	0	0	395	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	36.0	0.0	0.0	0.0	36.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	23.8	0.0	0.0	0.0	26.2	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.2	0.0	0.0	0.0	0.9	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	292	0	81	0	278	0	712	0
V/C Ratio (X)	0.03	0.00	0.73	0.00	0.12	0.00	0.90	0.00
Avail Cap (c_a), veh/h	385	0	154	0	331	0	713	0
Upstream Filter (I)	1.00	0.00	0.95	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	12.6	0.0	37.7	0.0	11.5	0.0	31.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	11.0	0.0	0.2	0.0	14.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	12.7	0.0	48.7	0.0	11.7	0.0	45.5	0.0
1st-Term Q (Q1), veh/ln	0.1	0.0	1.1	0.0	0.3	0.0	5.5	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.2	0.0	0.0	0.0	1.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.1	0.0	1.3	0.0	0.3	0.0	7.0	0.0
%ile Storage Ratio (RQ%)	0.01	0.00	0.12	0.00	0.03	0.00	0.61	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	891	0	12	0	648	0	184
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	14.1	0.0	0.4	0.0	9.8	0.0	4.0
Cycle Q Clear Time (g_c), s	0.0	14.1	0.0	0.4	0.0	9.8	0.0	4.0
Lane Grp Cap (c), veh/h	0	1682	0	437	0	1601	0	304
V/C Ratio (X)	0.00	0.53	0.00	0.03	0.00	0.40	0.00	0.61
Avail Cap (c_a), veh/h	0	1682	0	613	0	1601	0	800
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.95
Uniform Delay (d1), s/veh	0.0	14.8	0.0	22.9	0.0	14.8	0.0	35.3
Incr Delay (d2), s/veh	0.0	1.2	0.0	0.0	0.0	0.8	0.0	1.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.0	0.0	22.9	0.0	15.5	0.0	37.1
1st-Term Q (Q1), veh/ln	0.0	4.8	0.0	0.2	0.0	3.4	0.0	1.6
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.2	0.0	0.1

HCM 6th Signalized Intersection Capacity Analysis

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.1	0.0	0.2	0.0	3.6	0.0	1.7
%ile Storage Ratio (RQ%)	0.00	0.49	0.00	0.01	0.00	1.20	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	8	0	12	0	727	0	51
Grp Sat Flow (s), veh/h/ln	0	1585	0	1696	0	1585	0	1585
Q Serve Time (g_s), s	0.0	0.2	0.0	0.4	0.0	36.0	0.0	2.4
Cycle Q Clear Time (g_c), s	0.0	0.2	0.0	0.4	0.0	36.0	0.0	2.4
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.57	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	750	0	417	0	714	0	152
V/C Ratio (X)	0.00	0.01	0.00	0.03	0.00	1.02	0.00	0.34
Avail Cap (c_a), veh/h	0	750	0	585	0	714	0	373
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.95
Uniform Delay (d1), s/veh	0.0	11.1	0.0	22.9	0.0	22.0	0.0	33.8
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	38.4	0.0	1.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.2	0.0	22.9	0.0	60.3	0.0	35.0
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	0.2	0.0	11.2	0.0	0.9
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	7.6	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.2	0.0	18.8	0.0	0.9
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.01	0.00	1.41	0.00	0.15
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	33.6
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	535	701	50	187	515	388	79	1119	187	340	904	600	
Future Volume (veh/h)	535	701	50	187	515	388	79	1119	187	340	904	600	
Number	7	4	14	3	8	18	5	2	12	1	6	16	
Initial Q, 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		
Lanes Open During Work Zone													
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	557	730	52	195	536	404	82	1166	195	354	942	625	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Opposing Right Turn Influence	Yes			Yes			Yes			Yes			
Cap, veh/h	716	973	69	332	1028	458	359	1430	638	326	1430	638	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Prop Arrive On Green	0.08	0.29	0.29	0.08	0.29	0.29	0.40	0.40	0.40	0.40	0.40	0.40	
Unsig. Movement Delay													
Ln Grp Delay, s/veh	23.5	25.0	24.9	17.1	18.2	34.8	24.2	21.2	13.4	104.0	17.0	48.7	
Ln Grp LOS	C	C	C	B	B	C	C	C	B	F	B	D	
Approach Vol, veh/h		1339			1135			1443			1921		
Approach Delay, s/veh		24.4			23.9			20.3			43.3		
Approach LOS		C			C			C			D		
Timer:		1	2	3	4	5	6	7	8				
Assigned Phs			2	3	4		6	7	8				
Case No			5.0	1.1	4.0		5.0	1.1	3.0				
Phs Duration (G+Y+Rc), s			28.7	9.5	21.8		28.7	9.5	21.8				
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5				
Max Green (Gmax), s			23.5	5.0	18.0		23.5	5.0	18.0				
Max Allow Headway (MAH), s			5.5	3.8	5.3		5.7	3.8	4.7				
Max Q Clear (g_c+I1), s			22.1	6.6	13.8		26.2	7.0	16.6				
Green Ext Time (g_e), s			1.1	0.0	1.9		0.0	0.0	0.8				
Prob of Phs Call (p_c)			1.00	0.96	1.00		1.00	1.00	1.00				
Prob of Max Out (p_x)			0.00	1.00	1.00		0.00	1.00	1.00				
Left-Turn Movement Data													
Assigned Mvmt			5	3			1	7					
Mvmt Sat Flow, veh/h			636	1781			776	3456					
Through Movement Data													
Assigned Mvmt			2		4		6		8				
Mvmt Sat Flow, veh/h			3554		3365		3554		3554				
Right-Turn Movement Data													
Assigned Mvmt			12		14		16		18				
Mvmt Sat Flow, veh/h			1585		240		1585		1585				
Left Lane Group Data													
Assigned Mvmt		0	5	3	0	0	1	7	0				
Lane Assignment			LL (Pr/Pm)					LL (Pr/Pm)					

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Lanes in Grp	0	2	1	0	0	2	2	0
Grp Vol (v), veh/h	0	82	195	0	0	354	557	0
Grp Sat Flow (s), veh/h/ln	0	318	1781	0	0	388	1728	0
Q Serve Time (g_s), s	0.0	7.2	4.6	0.0	0.0	6.6	5.0	0.0
Cycle Q Clear Time (g_c), s	0.0	20.1	4.6	0.0	0.0	24.2	5.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	318	691	0	0	388	578	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	24.2	17.3	0.0	0.0	24.2	17.3	0.0
Perm LT Serve Time (g_u), s	0.0	11.2	5.5	0.0	0.0	6.6	9.8	0.0
Perm LT Q Serve Time (g_ps), s	0.0	7.2	4.6	0.0	0.0	6.6	9.8	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	359	332	0	0	326	716	0
V/C Ratio (X)	0.00	0.23	0.59	0.00	0.00	1.09	0.78	0.00
Avail Cap (c_a), veh/h	0	359	332	0	0	326	716	0
Upstream Filter (I)	0.00	1.00	0.82	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	22.8	14.9	0.0	0.0	29.1	18.1	0.0
Incr Delay (d2), s/veh	0.0	1.5	2.2	0.0	0.0	74.9	5.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	24.2	17.1	0.0	0.0	104.0	23.5	0.0
1st-Term Q (Q1), veh/ln	0.0	0.5	1.6	0.0	0.0	2.2	1.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.2	0.0	0.0	3.4	0.5	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.6	1.9	0.0	0.0	5.6	1.9	0.0
%ile Storage Ratio (RQ%)	0.00	0.09	0.16	0.00	0.00	1.43	0.16	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	1166	0	385	0	942	0	536
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	17.5	0.0	11.8	0.0	12.9	0.0	7.6
Cycle Q Clear Time (g_c), s	0.0	17.5	0.0	11.8	0.0	12.9	0.0	7.6
Lane Grp Cap (c), veh/h	0	1430	0	514	0	1430	0	1028
V/C Ratio (X)	0.00	0.82	0.00	0.75	0.00	0.66	0.00	0.52
Avail Cap (c_a), veh/h	0	1430	0	533	0	1430	0	1066
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.82
Uniform Delay (d1), s/veh	0.0	15.9	0.0	19.4	0.0	14.6	0.0	17.9
Incr Delay (d2), s/veh	0.0	5.2	0.0	5.7	0.0	2.4	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	21.2	0.0	25.0	0.0	17.0	0.0	18.2
1st-Term Q (Q1), veh/ln	0.0	6.1	0.0	4.4	0.0	4.5	0.0	2.8
2nd-Term Q (Q2), veh/ln	0.0	1.0	0.0	0.8	0.0	0.5	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

6:

07/24/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	7.2	0.0	5.2	0.0	5.0	0.0	2.9
%ile Storage Ratio (RQ%)	0.00	0.22	0.00	0.38	0.00	0.58	0.00	0.07
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	195	0	397	0	625	0	404
Grp Sat Flow (s), veh/h/ln	0	1585	0	1827	0	1585	0	1585
Q Serve Time (g_s), s	0.0	5.0	0.0	11.8	0.0	23.3	0.0	14.6
Cycle Q Clear Time (g_c), s	0.0	5.0	0.0	11.8	0.0	23.3	0.0	14.6
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.13	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	638	0	528	0	638	0	458
V/C Ratio (X)	0.00	0.31	0.00	0.75	0.00	0.98	0.00	0.88
Avail Cap (c_a), veh/h	0	638	0	548	0	638	0	476
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.82
Uniform Delay (d1), s/veh	0.0	12.2	0.0	19.4	0.0	17.7	0.0	20.3
Incr Delay (d2), s/veh	0.0	1.2	0.0	5.5	0.0	31.0	0.0	14.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.4	0.0	24.9	0.0	48.7	0.0	34.8
1st-Term Q (Q1), veh/ln	0.0	1.6	0.0	4.5	0.0	7.3	0.0	4.9
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.8	0.0	5.5	0.0	1.8
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.8	0.0	5.4	0.0	12.8	0.0	6.7
%ile Storage Ratio (RQ%)	0.00	0.28	0.00	0.39	0.00	1.62	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	29.5
HCM 6th LOS	C

Appendix D. Construction Year (2022) Level of Service Worksheets

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HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

03/08/2021

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	539	38	204	929	122	16	310	403	191	421	345
Future Volume (veh/h)	151	539	38	204	929	122	16	310	403	191	421	345
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	642	45	243	1106	145	19	369	480	227	501	411
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	210	996	70	274	1178	675	274	910	406	373	1171	522
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Prop Arrive On Green	0.24	0.59	0.59	0.31	0.66	0.66	0.04	0.51	0.51	0.19	0.66	0.66
Unsig. Movement Delay												
Ln Grp Delay, s/veh	58.4	17.9	17.9	41.2	21.0	8.0	23.4	19.1	126.8	21.6	12.4	24.3
Ln Grp LOS	E	B	B	D	C	A	C	B	F	C	B	C
Approach Vol, veh/h		867			1494			868			1139	
Approach Delay, s/veh		26.3			23.1			78.8			18.6	
Approach LOS		C			C			E			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	3.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		13.0	27.5	18.3	31.1	6.4	34.1	15.1	34.3			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		8.5	20.5	16.6	26.4	5.0	24.0	11.5	31.5			
Max Allow Headway (MAH), s		3.7	4.3	3.7	4.9	3.7	4.5	3.7	4.8			
Max Q Clear (g_c+I1), s		10.5	25.0	13.7	13.3	2.7	18.5	10.7	27.0			
Green Ext Time (g_e), s		0.0	0.0	0.2	3.1	0.0	2.2	0.0	2.8			
Prob of Phs Call (p_c)		1.00	1.00	1.00	1.00	0.38	1.00	0.99	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.18	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3369		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		236		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

03/08/2021

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	227	0	243	0	19	0	180	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	8.5	0.0	11.7	0.0	0.7	0.0	8.7	0.0
Cycle Q Clear Time (g_c), s	8.5	0.0	11.7	0.0	0.7	0.0	8.7	0.0
Perm LT Sat Flow (s_l), veh/h/ln	649	0	0	0	612	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	25.0	0.0	0.0	0.0	23.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	17.3	0.0	0.0	0.0	23.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	373	0	274	0	274	0	210	0
V/C Ratio (X)	0.61	0.00	0.89	0.00	0.07	0.00	0.86	0.00
Avail Cap (c_a), veh/h	373	0	329	0	336	0	228	0
Upstream Filter (I)	0.98	0.00	0.43	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	18.8	0.0	30.4	0.0	23.3	0.0	33.6	0.0
Incr Delay (d2), s/veh	2.8	0.0	10.8	0.0	0.1	0.0	24.7	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	21.6	0.0	41.2	0.0	23.4	0.0	58.4	0.0
1st-Term Q (Q1), veh/ln	2.8	0.0	3.9	0.0	0.3	0.0	3.2	0.0
2nd-Term Q (Q2), veh/ln	0.3	0.0	0.8	0.0	0.0	0.0	1.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	3.1	0.0	4.8	0.0	0.3	0.0	4.6	0.0
%ile Storage Ratio (RQ%)	0.23	0.00	0.45	0.00	0.03	0.00	0.40	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	369	0	338	0	501	0	1106
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	5.8	0.0	11.3	0.0	6.0	0.0	25.0
Cycle Q Clear Time (g_c), s	0.0	5.8	0.0	11.3	0.0	6.0	0.0	25.0
Lane Grp Cap (c), veh/h	0	910	0	525	0	1171	0	1178
V/C Ratio (X)	0.00	0.41	0.00	0.64	0.00	0.43	0.00	0.94
Avail Cap (c_a), veh/h	0	910	0	525	0	1171	0	1244
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.98	0.00	0.43
Uniform Delay (d1), s/veh	0.0	17.7	0.0	15.3	0.0	11.3	0.0	14.3
Incr Delay (d2), s/veh	0.0	1.3	0.0	2.7	0.0	1.1	0.0	6.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.1	0.0	17.9	0.0	12.4	0.0	21.0
1st-Term Q (Q1), veh/ln	0.0	1.9	0.0	3.1	0.0	1.8	0.0	4.3
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.4	0.0	0.2	0.0	1.1

HCM 6th Signalized Intersection Capacity Analysis

1: Tapo Canyon Rd & E Los Angeles Ave

03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.1	0.0	3.5	0.0	2.0	0.0	5.4
%ile Storage Ratio (RQ%)	0.00	0.20	0.00	0.11	0.00	0.67	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data































Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	480	0	349	0	411	0	145
Grp Sat Flow (s), veh/h/ln	0	1585	0	1828	0	1585	0	1585
Q Serve Time (g_s), s	0.0	23.0	0.0	11.3	0.0	16.5	0.0	2.9
Cycle Q Clear Time (g_c), s	0.0	23.0	0.0	11.3	0.0	16.5	0.0	2.9
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.13	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	406	0	541	0	522	0	675
V/C Ratio (X)	0.00	1.18	0.00	0.65	0.00	0.79	0.00	0.21
Avail Cap (c_a), veh/h	0	406	0	541	0	522	0	704
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.98	0.00	0.43
Uniform Delay (d1), s/veh	0.0	22.0	0.0	15.3	0.0	13.1	0.0	7.9
Incr Delay (d2), s/veh	0.0	104.9	0.0	2.6	0.0	11.2	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	126.8	0.0	17.9	0.0	24.3	0.0	8.0
1st-Term Q (Q1), veh/ln	0.0	4.8	0.0	3.2	0.0	3.2	0.0	0.8
2nd-Term Q (Q2), veh/ln	0.0	11.8	0.0	0.4	0.0	1.6	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	16.6	0.0	3.6	0.0	4.8	0.0	0.8
%ile Storage Ratio (RQ%)	0.00	2.82	0.00	0.12	0.00	0.36	0.00	0.13
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	18.6	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	33.6
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
2: Tapo St & E Los Angeles Ave

03/08/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	 
Traffic Volume (veh/h)	338	660	66	74	889	201	21	40	35	173	122	329
Future Volume (veh/h)	338	660	66	74	889	201	21	40	35	173	122	329
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	376	733	73	82	988	223	23	44	39	192	136	366
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	436	1365	136	106	1012	228	333	437	344	487	510	632
HCM Platoon Ratio	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
Prop Arrive On Green	0.17	0.56	0.56	0.08	0.47	0.47	0.03	0.31	0.31	0.09	0.36	0.36
Unsig. Movement Delay												
Ln Grp Delay, s/veh	44.2	13.4	13.4	47.8	50.6	51.7	22.3	22.2	22.4	22.0	21.1	20.2
Ln Grp LOS	D	B	B	D	D	D	C	C	C	C	C	C
Approach Vol, veh/h		1182			1293			106			694	
Approach Delay, s/veh		23.2			51.0			22.3			20.9	
Approach LOS		C			D			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	2.0	4.0	1.1	3.0	2.0	4.0			
Phs Duration (G+Y+Rc), s		9.8	23.0	9.2	38.0	6.5	26.3	14.6	32.6			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		5.3	18.5	9.3	28.9	5.0	18.8	10.1	28.1			
Max Allow Headway (MAH), s		3.7	5.2	3.7	4.9	3.7	4.2	3.7	5.0			
Max Q Clear (g_c+I1), s		7.3	3.5	5.6	13.4	2.8	16.0	10.5	29.0			
Green Ext Time (g_e), s		0.0	0.3	0.0	4.1	0.0	0.6	0.0	0.0			
Prob of Phs Call (p_c)		0.99	1.00	0.84	1.00	0.40	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.16	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1891		3264		1870		2882			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1488		325		1585		649			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis

2: Tapo St & E Los Angeles Ave

03/08/2021

Lanes in Grp	1	0	1	0	1	0	2	0
Grp Vol (v), veh/h	192	0	82	0	23	0	376	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1728	0
Q Serve Time (g_s), s	5.3	0.0	3.6	0.0	0.8	0.0	8.5	0.0
Cycle Q Clear Time (g_c), s	5.3	0.0	3.6	0.0	0.8	0.0	8.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	1315	0	0	0	896	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	19.3	0.0	0.0	0.0	18.5	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	17.0	0.0	0.0	0.0	17.7	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	487	0	106	0	333	0	436	0
V/C Ratio (X)	0.39	0.00	0.78	0.00	0.07	0.00	0.86	0.00
Avail Cap (c_a), veh/h	487	0	207	0	400	0	436	0
Upstream Filter (I)	0.99	0.00	1.00	0.00	1.00	0.00	0.68	0.00
Uniform Delay (d1), s/veh	21.5	0.0	36.3	0.0	22.2	0.0	32.6	0.0
Incr Delay (d2), s/veh	0.5	0.0	11.5	0.0	0.1	0.0	11.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	22.0	0.0	47.8	0.0	22.3	0.0	44.2	0.0
1st-Term Q (Q1), veh/ln	2.5	0.0	1.5	0.0	0.3	0.0	3.2	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.3	0.0	0.0	0.0	0.7	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.6	0.0	1.8	0.0	0.3	0.0	3.9	0.0
%ile Storage Ratio (RQ%)	0.66	0.00	0.33	0.00	0.12	0.00	0.38	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	41	0	399	0	136	0	608
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	1.3	0.0	11.4	0.0	4.1	0.0	26.8
Cycle Q Clear Time (g_c), s	0.0	1.3	0.0	11.4	0.0	4.1	0.0	26.8
Lane Grp Cap (c), veh/h	0	411	0	743	0	510	0	624
V/C Ratio (X)	0.00	0.10	0.00	0.54	0.00	0.27	0.00	0.97
Avail Cap (c_a), veh/h	0	411	0	743	0	510	0	624
Upstream Filter (I)	0.00	1.00	0.00	0.68	0.00	0.99	0.00	1.00
Uniform Delay (d1), s/veh	0.0	21.7	0.0	12.8	0.0	19.9	0.0	21.0
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.5	0.0	1.3	0.0	29.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.2	0.0	13.4	0.0	21.1	0.0	50.6
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	3.4	0.0	1.6	0.0	7.9
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.2	0.0	5.1

HCM 6th Signalized Intersection Capacity Analysis 2: Tapo St & E Los Angeles Ave

03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.6	0.0	3.5	0.0	1.8	0.0	13.0
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.09	0.00	0.47	0.00	0.83
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	42	0	407	0	366	0	603
Grp Sat Flow (s), veh/h/ln	0	1603	0	1812	0	1585	0	1754
Q Serve Time (g_s), s	0.0	1.5	0.0	11.4	0.0	14.0	0.0	27.0
Cycle Q Clear Time (g_c), s	0.0	1.5	0.0	11.4	0.0	14.0	0.0	27.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.93	0.00	0.18	0.00	1.00	0.00	0.37
Lane Grp Cap (c), veh/h	0	371	0	758	0	632	0	616
V/C Ratio (X)	0.00	0.11	0.00	0.54	0.00	0.58	0.00	0.98
Avail Cap (c_a), veh/h	0	371	0	758	0	632	0	616
Upstream Filter (I)	0.00	1.00	0.00	0.68	0.00	0.99	0.00	1.00
Uniform Delay (d1), s/veh	0.0	21.8	0.0	12.9	0.0	16.4	0.0	21.0
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.5	0.0	3.8	0.0	30.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.4	0.0	13.4	0.0	20.2	0.0	51.7
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	3.5	0.0	3.9	0.0	7.9
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.7	0.0	5.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.6	0.0	3.6	0.0	4.6	0.0	13.2
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.09	0.00	1.17	0.00	0.84
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	33.6
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

03/08/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (veh/h)	0	843	0	0	1230	0	0	0	0	0	0	0
Future Volume (veh/h)	0	843	0	0	1230	0	0	0	0	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	947	0	0	1382	0	0	0	0	0	0	0
Peak Hour Factor	0.92	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	1809	0	0	1809	0	0	612	0	0	612	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
Prop Arrive On Green	0.00	0.51	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	10.1	0.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ln Grp LOS	A	B	A	A	B	A	A	A	A	A	A	A
Approach Vol, veh/h		947			1382			0			0	
Approach Delay, s/veh		10.1			14.0			0.0			0.0	
Approach LOS		B			B							
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			32.5		22.5		32.5		22.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			28.0		18.0		28.0		18.0			
Max Allow Headway (MAH), s			4.9		0.0		4.9		0.0			
Max Q Clear (g_c+I1), s			11.8		0.0		19.2		0.0			
Green Ext Time (g_e), s			5.6		0.0		5.6		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3741		1870		3741		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

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Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	28.0	0.0	18.0	0.0	28.0	0.0	18.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	947	0	0	0	1382	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	9.8	0.0	0.0	0.0	17.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	9.8	0.0	0.0	0.0	17.2	0.0	0.0
Lane Grp Cap (c), veh/h	0	1809	0	612	0	1809	0	612
V/C Ratio (X)	0.00	0.52	0.00	0.00	0.00	0.76	0.00	0.00
Avail Cap (c_a), veh/h	0	1809	0	612	0	1809	0	612
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	9.0	0.0	0.0	0.0	10.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.0	0.0	3.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.1	0.0	0.0	0.0	14.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.5	0.0	0.0	0.0	4.5	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.8	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.8	0.0	0.0	0.0	5.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.72	0.00	0.00	0.00	1.51	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data













Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	12.4
HCM 6th LOS	B

HCM 6th Signalized Intersection Capacity Analysis
4: Hlidden Ranch Dr

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	258	0	0	88	0
Future Volume (veh/h)	0	0	0	0	0	0	0	258	0	0	88	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	300	0	0	102	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	823	0	0	823	0	0	711	0	0	711	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
Prop Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.38	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.3	0.0	0.0	10.6	0.0
Ln Grp LOS	A	A	A	A	A	A	A	B	A	A	B	A
Approach Vol, veh/h		0			0			300			102	
Approach Delay, s/veh		0.0			0.0			13.3			10.6	
Approach LOS								B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			23.5		26.5		23.5		26.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			19.0		22.0		19.0		22.0			
Max Allow Headway (MAH), s			5.1		0.0		5.1		0.0			
Max Q Clear (g_c+I1), s			7.9		0.0		3.8		0.0			
Green Ext Time (g_e), s			1.2		0.0		0.4		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1870		1870		1870		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis

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Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	19.0	0.0	22.0	0.0	19.0	0.0	22.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	300	0	0	0	102	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	1870	0	1870	0	1870
Q Serve Time (g_s), s	0.0	5.9	0.0	0.0	0.0	1.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.9	0.0	0.0	0.0	1.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	711	0	823	0	711	0	823
V/C Ratio (X)	0.00	0.42	0.00	0.00	0.00	0.14	0.00	0.00
Avail Cap (c_a), veh/h	0	711	0	823	0	711	0	823
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	11.4	0.0	0.0	0.0	10.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.8	0.0	0.0	0.0	0.4	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
Control Delay (d), s/veh	0.0	13.3	0.0	0.0	0.0	10.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.0	0.0	0.0	0.0	0.6	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.1	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.3	0.0	0.0	0.0	0.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.68	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	12.6
HCM 6th LOS	B

HCM 6th Signalized Intersection Capacity Analysis
5: Sequoia Ave & Cochran St

03/08/2021

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	198	591	49	90	807	129	93	456	50	107	324	275	
Future Volume (veh/h)	198	591	49	90	807	129	93	456	50	107	324	275	
Number	7	4	14	3	8	18	5	2	12	1	6	16	
Initial Q, 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		
Lanes Open During Work Zone													
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	275	821	68	125	1121	179	129	633	69	149	450	382	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Opposing Right Turn Influence	Yes			Yes			Yes			Yes			
Cap, veh/h	310	1230	549	363	1163	519	204	1070	116	256	604	511	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Prop Arrive On Green	0.10	0.35	0.35	0.08	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	
Unsig. Movement Delay													
Ln Grp Delay, s/veh	39.8	16.7	12.4	12.1	36.5	14.4	39.7	19.6	19.6	32.4	24.1	25.1	
Ln Grp LOS	D	B	B	B	D	B	D	B	B	C	C	C	
Approach Vol, veh/h		1164			1425			831			981		
Approach Delay, s/veh		21.9			31.6			22.7			25.8		
Approach LOS		C			C			C			C		
Timer:		1	2	3	4	5	6	7	8				
Assigned Phs			2	3	4		6	7	8				
Case No			6.0	1.1	3.0		6.0	1.1	3.0				
Phs Duration (G+Y+Rc), s			22.7	8.8	23.5		22.7	9.8	22.5				
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5				
Max Green (Gmax), s			18.2	5.0	18.3		18.2	5.3	18.0				
Max Allow Headway (MAH), s			5.2	3.7	4.8		5.2	3.7	4.8				
Max Q Clear (g_c+I1), s			20.2	4.5	12.8		20.2	7.3	19.0				
Green Ext Time (g_e), s			0.0	0.0	2.5		0.0	0.0	0.0				
Prob of Phs Call (p_c)			1.00	0.85	1.00		1.00	0.99	1.00				
Prob of Max Out (p_x)			0.00	1.00	0.89		0.00	1.00	1.00				
Left-Turn Movement Data													
Assigned Mvmt			5	3			1	7					
Mvmt Sat Flow, veh/h			660	1781			745	1781					
Through Movement Data													
Assigned Mvmt			2		4		6		8				
Mvmt Sat Flow, veh/h			3232		3554		1825		3554				
Right-Turn Movement Data													
Assigned Mvmt			12		14		16		18				
Mvmt Sat Flow, veh/h			352		1585		1544		1585				
Left Lane Group Data													
Assigned Mvmt		0	5	3	0	0	1	7	0				
Lane Assignment			LL (Pr/Pm)					LL (Pr/Pm)					

HCM 6th Signalized Intersection Capacity Analysis
5: Sequoia Ave & Cochran St

03/08/2021

Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	129	125	0	0	149	275	0
Grp Sat Flow (s), veh/h/ln	0	660	1781	0	0	745	1781	0
Q Serve Time (g_s), s	0.0	6.1	2.5	0.0	0.0	9.2	5.3	0.0
Cycle Q Clear Time (g_c), s	0.0	18.2	2.5	0.0	0.0	18.2	5.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	660	625	0	0	745	424	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	18.2	18.0	0.0	0.0	18.2	18.0	0.0
Perm LT Serve Time (g_u), s	0.0	6.1	8.2	0.0	0.0	9.2	1.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	6.1	2.4	0.0	0.0	9.2	1.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	204	363	0	0	256	310	0
V/C Ratio (X)	0.00	0.63	0.34	0.00	0.00	0.58	0.89	0.00
Avail Cap (c_a), veh/h	0	204	386	0	0	256	310	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.93	1.00	0.00
Uniform Delay (d1), s/veh	0.0	25.8	11.6	0.0	0.0	23.6	14.6	0.0
Incr Delay (d2), s/veh	0.0	14.0	0.6	0.0	0.0	8.7	25.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	39.7	12.1	0.0	0.0	32.4	39.8	0.0
1st-Term Q (Q1), veh/ln	0.0	1.5	0.7	0.0	0.0	1.7	1.7	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.8	0.1	0.0	0.0	0.6	2.2	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.3	0.8	0.0	0.0	2.3	3.9	0.0
%ile Storage Ratio (RQ%)	0.00	0.58	0.14	0.00	0.00	0.39	0.58	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	2
Grp Vol (v), veh/h	0	348	0	821	0	438	0	1121
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	8.9	0.0	10.8	0.0	12.0	0.0	17.0
Cycle Q Clear Time (g_c), s	0.0	8.9	0.0	10.8	0.0	12.0	0.0	17.0
Lane Grp Cap (c), veh/h	0	588	0	1230	0	588	0	1163
V/C Ratio (X)	0.00	0.59	0.00	0.67	0.00	0.75	0.00	0.96
Avail Cap (c_a), veh/h	0	588	0	1230	0	588	0	1163
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.93	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.3	0.0	15.3	0.0	16.3	0.0	18.2
Incr Delay (d2), s/veh	0.0	4.3	0.0	1.4	0.0	7.8	0.0	18.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.6	0.0	16.7	0.0	24.1	0.0	36.5
1st-Term Q (Q1), veh/ln	0.0	2.9	0.0	3.4	0.0	3.9	0.0	5.5
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.2	0.0	1.3	0.0	3.0

HCM 6th Signalized Intersection Capacity Analysis

5: Sequoia Ave & Cochran St

03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.6	0.0	3.7	0.0	5.1	0.0	8.4
%ile Storage Ratio (RQ%)	0.00	0.38	0.00	0.06	0.00	0.11	0.00	0.20
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

























Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		R		T+R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	354	0	68	0	394	0	179
Grp Sat Flow (s), veh/h/ln	0	1807	0	1585	0	1592	0	1585
Q Serve Time (g_s), s	0.0	9.0	0.0	1.6	0.0	12.1	0.0	4.7
Cycle Q Clear Time (g_c), s	0.0	9.0	0.0	1.6	0.0	12.1	0.0	4.7
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.19	0.00	1.00	0.00	0.97	0.00	1.00
Lane Grp Cap (c), veh/h	0	598	0	549	0	527	0	519
V/C Ratio (X)	0.00	0.59	0.00	0.12	0.00	0.75	0.00	0.35
Avail Cap (c_a), veh/h	0	598	0	549	0	527	0	519
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.93	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.3	0.0	12.3	0.0	16.4	0.0	14.0
Incr Delay (d2), s/veh	0.0	4.3	0.0	0.1	0.0	8.7	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
Control Delay (d), s/veh	0.0	19.6	0.0	12.4	0.0	25.1	0.0	14.4
1st-Term Q (Q1), veh/ln	0.0	2.9	0.0	0.5	0.0	3.5	0.0	1.3
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.0	0.0	1.3	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.6	0.0	0.5	0.0	4.8	0.0	1.4
%ile Storage Ratio (RQ%)	0.00	0.39	0.00	0.08	0.00	0.11	0.00	0.24
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	26.1
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
6: Tapo Canyon Rd & Cochran St

03/08/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	457	430	85	110	436	327	57	572	69	233	769	355
Future Volume (veh/h)	457	430	85	110	436	327	57	572	69	233	769	355
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	544	512	101	131	519	389	68	681	82	277	915	423
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	574	1394	622	352	705	314	129	1023	456	333	1233	974
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.27	0.39	0.39	0.07	0.20	0.20	0.04	0.29	0.29	0.10	0.35	0.35
Unsig. Movement Delay												
Ln Grp Delay, s/veh	51.4	26.1	23.8	34.8	48.0	172.8	60.0	41.1	33.0	67.7	38.5	13.6
Ln Grp LOS	D	C	C	C	D	F	E	D	C	E	D	B
Approach Vol, veh/h		1157			1039			831			1615	
Approach Delay, s/veh		37.8			93.1			41.8			37.0	
Approach LOS		D			F			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		2.0	3.0	1.1	3.0	2.0	3.0	1.1	3.0			
Phs Duration (G+Y+Rc), s		16.1	39.0	13.3	51.6	9.0	46.1	36.6	28.3			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		12.5	29.6	9.3	50.6	5.1	37.0	36.1	23.8			
Max Allow Headway (MAH), s		3.8	5.1	3.8	5.0	3.8	4.9	3.8	4.7			
Max Q Clear (g_c+I1), s		11.4	22.3	8.9	14.3	4.3	29.2	31.2	25.8			
Green Ext Time (g_e), s		0.1	2.9	0.0	4.2	0.0	4.6	0.9	0.0			
Prob of Phs Call (p_c)		1.00	1.00	0.99	1.00	0.90	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.00	1.00	0.00	0.64	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		3456		1781		3456		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Prot)		L (Pr/Pm)		L (Prot)		L (Pr/Pm)				

HCM 6th Signalized Intersection Capacity Analysis

6: Tapo Canyon Rd & Cochran St

03/08/2021

Lanes in Grp	2	0	1	0	2	0	1	0
Grp Vol (v), veh/h	277	0	131	0	68	0	544	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	1781	0
Q Serve Time (g_s), s	9.4	0.0	6.9	0.0	2.3	0.0	29.2	0.0
Cycle Q Clear Time (g_c), s	9.4	0.0	6.9	0.0	2.3	0.0	29.2	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	809	0	0	0	614	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	23.8	0.0	0.0	0.0	25.8	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	23.8	0.0	0.0	0.0	7.3	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	7.3	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	333	0	352	0	129	0	574	0
V/C Ratio (X)	0.83	0.00	0.37	0.00	0.53	0.00	0.95	0.00
Avail Cap (c_a), veh/h	360	0	358	0	147	0	633	0
Upstream Filter (I)	1.00	0.00	0.70	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	53.3	0.0	34.3	0.0	56.7	0.0	28.9	0.0
Incr Delay (d2), s/veh	14.4	0.0	0.5	0.0	3.3	0.0	22.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	67.7	0.0	34.8	0.0	60.0	0.0	51.4	0.0
1st-Term Q (Q1), veh/ln	4.1	0.0	3.0	0.0	1.0	0.0	12.2	0.0
2nd-Term Q (Q2), veh/ln	0.7	0.0	0.0	0.0	0.1	0.0	3.6	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	4.8	0.0	3.1	0.0	1.1	0.0	15.8	0.0
%ile Storage Ratio (RQ%)	1.21	0.00	0.26	0.00	0.17	0.00	1.34	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	2	0	2
Grp Vol (v), veh/h	0	681	0	512	0	915	0	519
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	20.3	0.0	12.3	0.0	27.2	0.0	16.5
Cycle Q Clear Time (g_c), s	0.0	20.3	0.0	12.3	0.0	27.2	0.0	16.5
Lane Grp Cap (c), veh/h	0	1023	0	1394	0	1233	0	705
V/C Ratio (X)	0.00	0.67	0.00	0.37	0.00	0.74	0.00	0.74
Avail Cap (c_a), veh/h	0	1023	0	1498	0	1233	0	705
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.70
Uniform Delay (d1), s/veh	0.0	37.6	0.0	25.9	0.0	34.5	0.0	45.2
Incr Delay (d2), s/veh	0.0	3.4	0.0	0.2	0.0	4.1	0.0	2.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	41.1	0.0	26.1	0.0	38.5	0.0	48.0
1st-Term Q (Q1), veh/ln	0.0	8.8	0.0	5.2	0.0	11.6	0.0	7.2
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.7	0.0	0.3

HCM 6th Signalized Intersection Capacity Analysis

6: Tapo Canyon Rd & Cochran St

03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	9.3	0.0	5.2	0.0	12.3	0.0	7.5
%ile Storage Ratio (RQ%)	0.00	0.58	0.00	0.19	0.00	1.46	0.00	0.19
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	82	0	101	0	423	0	389
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	4.7	0.0	5.0	0.0	16.8	0.0	23.8
Cycle Q Clear Time (g_c), s	0.0	4.7	0.0	5.0	0.0	16.8	0.0	23.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	32.1	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	456	0	622	0	974	0	314
V/C Ratio (X)	0.00	0.18	0.00	0.16	0.00	0.43	0.00	1.24
Avail Cap (c_a), veh/h	0	456	0	668	0	974	0	314
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.70
Uniform Delay (d1), s/veh	0.0	32.1	0.0	23.7	0.0	12.2	0.0	48.1
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.1	0.0	1.4	0.0	124.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	33.0	0.0	23.8	0.0	13.6	0.0	172.8
1st-Term Q (Q1), veh/ln	0.0	1.8	0.0	1.9	0.0	5.7	0.0	9.3
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.4	0.0	10.9
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.9	0.0	1.9	0.0	6.1	0.0	20.2
%ile Storage Ratio (RQ%)	0.00	0.30	0.00	0.69	0.00	0.78	0.00	0.50
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.7
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Intersection Summary

HCM 6th Ctrl Delay	50.6
HCM 6th LOS	D

HCM 6th Signalized Intersection Capacity Analysis
7: Tapo St & Cochran St

03/08/2021

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	219	367	128	161	328	136	93	270	80	195	386	173
Future Volume (veh/h)	219	367	128	161	328	136	93	270	80	195	386	173
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	261	437	152	192	390	162	111	321	95	232	460	206
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	383	596	205	349	488	200	365	845	246	503	861	383
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.14	0.23	0.23	0.11	0.20	0.20	0.06	0.31	0.31	0.11	0.36	0.36
Unsig. Movement Delay												
Ln Grp Delay, s/veh	24.7	31.0	31.6	22.7	37.0	38.5	16.7	22.1	22.3	14.9	22.2	22.5
Ln Grp LOS	C	C	C	C	D	D	B	C	C	B	C	C
Approach Vol, veh/h		850			744			527			898	
Approach Delay, s/veh		29.3			33.9			21.0			20.4	
Approach LOS		C			C			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		12.8	27.9	12.6	21.7	9.1	31.5	15.0	19.4			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		8.5	20.0	8.5	20.0	5.5	23.0	10.5	18.0			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	5.3	3.8	5.3			
Max Q Clear (g_c+I1), s		8.3	9.1	8.3	13.8	5.1	13.5	10.5	13.5			
Green Ext Time (g_e), s		0.0	1.8	0.0	1.9	0.0	2.9	0.0	1.4			
Prob of Phs Call (p_c)		0.99	1.00	0.98	1.00	0.90	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.84	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			2715		2593		2392		2458			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			790		894		1063		1008			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)				

HCM 6th Signalized Intersection Capacity Analysis
7: Tapo St & Cochran St

03/08/2021

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	232	0	192	0	111	0	261	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	6.3	0.0	6.3	0.0	3.1	0.0	8.5	0.0
Cycle Q Clear Time (g_c), s	6.3	0.0	6.3	0.0	3.1	0.0	8.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	970	0	827	0	770	0	856	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	24.5	0.0	14.9	0.0	23.4	0.0	14.9	0.0
Perm LT Serve Time (g_u), s	16.3	0.0	5.4	0.0	15.5	0.0	3.4	0.0
Perm LT Q Serve Time (g_ps), s	2.6	0.0	2.9	0.0	1.3	0.0	3.4	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	503	0	349	0	365	0	383	0
V/C Ratio (X)	0.46	0.00	0.55	0.00	0.30	0.00	0.68	0.00
Avail Cap (c_a), veh/h	509	0	357	0	385	0	384	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.88	0.00
Uniform Delay (d1), s/veh	14.3	0.0	21.0	0.0	16.2	0.0	20.5	0.0
Incr Delay (d2), s/veh	0.7	0.0	1.7	0.0	0.5	0.0	4.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	14.9	0.0	22.7	0.0	16.7	0.0	24.7	0.0
1st-Term Q (Q1), veh/ln	2.4	0.0	2.5	0.0	1.2	0.0	3.3	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.2	0.0	0.0	0.0	0.5	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.4	0.0	2.6	0.0	1.2	0.0	3.8	0.0
%ile Storage Ratio (RQ%)	0.52	0.00	0.56	0.00	0.23	0.00	0.80	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	208	0	298	0	341	0	280
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	6.9	0.0	11.6	0.0	11.4	0.0	11.3
Cycle Q Clear Time (g_c), s	0.0	6.9	0.0	11.6	0.0	11.4	0.0	11.3
Lane Grp Cap (c), veh/h	0	553	0	408	0	640	0	353
V/C Ratio (X)	0.00	0.38	0.00	0.73	0.00	0.53	0.00	0.79
Avail Cap (c_a), veh/h	0	553	0	474	0	640	0	426
Upstream Filter (I)	0.00	1.00	0.00	0.88	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	20.1	0.0	26.7	0.0	19.0	0.0	28.6
Incr Delay (d2), s/veh	0.0	2.0	0.0	4.2	0.0	3.2	0.0	8.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.1	0.0	31.0	0.0	22.2	0.0	37.0
1st-Term Q (Q1), veh/ln	0.0	2.7	0.0	4.7	0.0	4.4	0.0	4.6
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.5	0.0	0.6	0.0	0.8

HCM 6th Signalized Intersection Capacity Analysis

7: Tapo St & Cochran St

03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.0	0.0	5.2	0.0	5.0	0.0	5.4
%ile Storage Ratio (RQ%)	0.00	0.11	0.00	0.13	0.00	0.38	0.00	0.08
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	208	0	291	0	325	0	272
Grp Sat Flow (s), veh/h/ln	0	1728	0	1710	0	1679	0	1689
Q Serve Time (g_s), s	0.0	7.1	0.0	11.8	0.0	11.5	0.0	11.5
Cycle Q Clear Time (g_c), s	0.0	7.1	0.0	11.8	0.0	11.5	0.0	11.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.46	0.00	0.52	0.00	0.63	0.00	0.60
Lane Grp Cap (c), veh/h	0	538	0	393	0	604	0	336
V/C Ratio (X)	0.00	0.39	0.00	0.74	0.00	0.54	0.00	0.81
Avail Cap (c_a), veh/h	0	538	0	456	0	604	0	405
Upstream Filter (I)	0.00	1.00	0.00	0.88	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	20.2	0.0	26.8	0.0	19.1	0.0	28.7
Incr Delay (d2), s/veh	0.0	2.1	0.0	4.8	0.0	3.4	0.0	9.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.3	0.0	31.6	0.0	22.5	0.0	38.5
1st-Term Q (Q1), veh/ln	0.0	2.7	0.0	4.6	0.0	4.2	0.0	4.5
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.5	0.0	0.6	0.0	0.9
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.0	0.0	5.1	0.0	4.8	0.0	5.4
%ile Storage Ratio (RQ%)	0.00	0.11	0.00	0.13	0.00	0.37	0.00	0.08
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	26.3
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

8: Sequoia Ave & Cochran St

03/08/2021

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	485	92	129	360	87	149	175	242	136	263	56
Future Volume (veh/h)	38	485	92	129	360	87	149	175	242	136	263	56
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	693	131	184	514	124	213	250	346	194	376	80
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	275	794	150	266	910	218	476	1798	802	457	1478	311
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.04	0.27	0.27	0.09	0.32	0.32	0.51	0.51	0.51	0.51	0.51	0.51
Unsig. Movement Delay												
Ln Grp Delay, s/veh	25.8	49.1	49.2	29.3	29.1	29.2	23.1	13.2	16.9	21.3	14.7	14.7
Ln Grp LOS	C	D	D	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		878			822			809			650	
Approach Delay, s/veh		47.7			29.2			17.4			16.7	
Approach LOS		D			C			B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			5.0	1.1	4.0		6.0	1.1	4.0			
Phs Duration (G+Y+Rc), s			55.1	13.8	31.1		55.1	8.4	36.5			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			43.5	13.5	29.5		43.5	5.6	37.4			
Max Allow Headway (MAH), s			4.7	3.8	5.3		5.4	3.8	5.3			
Max Q Clear (g_c+I1), s			26.1	9.2	24.2		22.2	4.2	17.1			
Green Ext Time (g_e), s			3.9	0.2	2.4		4.1	0.0	4.0			
Prob of Phs Call (p_c)			1.00	0.99	1.00		1.00	0.78	1.00			
Prob of Max Out (p_x)			0.00	0.65	1.00		0.00	1.00	0.05			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			935	1781			822	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		2982		2921		2842			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		563		615		682			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

HCM 6th Signalized Intersection Capacity Analysis
8: Sequoia Ave & Cochran St

03/08/2021

Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	213	184	0	0	194	54	0
Grp Sat Flow (s), veh/h/ln	0	935	1781	0	0	822	1781	0
Q Serve Time (g_s), s	0.0	16.7	7.2	0.0	0.0	16.4	2.2	0.0
Cycle Q Clear Time (g_c), s	0.0	24.1	7.2	0.0	0.0	20.2	2.2	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	935	665	0	0	822	790	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	50.6	28.6	0.0	0.0	50.6	26.6	0.0
Perm LT Serve Time (g_u), s	0.0	43.2	4.4	0.0	0.0	46.9	16.9	0.0
Perm LT Q Serve Time (g_ps), s	0.0	16.7	4.4	0.0	0.0	16.4	0.7	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	476	266	0	0	457	275	0
V/C Ratio (X)	0.00	0.45	0.69	0.00	0.00	0.42	0.20	0.00
Avail Cap (c_a), veh/h	0	476	342	0	0	457	305	0
Upstream Filter (I)	0.00	0.74	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	20.9	25.3	0.0	0.0	18.5	25.4	0.0
Incr Delay (d2), s/veh	0.0	2.2	4.1	0.0	0.0	2.9	0.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	23.1	29.3	0.0	0.0	21.3	25.8	0.0
1st-Term Q (Q1), veh/ln	0.0	3.5	2.9	0.0	0.0	3.0	0.9	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.3	0.0	0.0	0.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.8	3.2	0.0	0.0	3.4	0.9	0.0
%ile Storage Ratio (RQ%)	0.00	0.65	0.55	0.00	0.00	0.54	0.16	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	250	0	413	0	227	0	320
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	3.7	0.0	22.2	0.0	7.2	0.0	15.0
Cycle Q Clear Time (g_c), s	0.0	3.7	0.0	22.2	0.0	7.2	0.0	15.0
Lane Grp Cap (c), veh/h	0	1798	0	473	0	899	0	569
V/C Ratio (X)	0.00	0.14	0.00	0.87	0.00	0.25	0.00	0.56
Avail Cap (c_a), veh/h	0	1798	0	524	0	899	0	665
Upstream Filter (I)	0.00	0.74	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.1	0.0	35.1	0.0	14.0	0.0	28.2
Incr Delay (d2), s/veh	0.0	0.1	0.0	14.0	0.0	0.7	0.0	0.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.2	0.0	49.1	0.0	14.7	0.0	29.1
1st-Term Q (Q1), veh/ln	0.0	1.5	0.0	9.4	0.0	2.8	0.0	6.2
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	1.8	0.0	0.2	0.0	0.1

HCM 6th Signalized Intersection Capacity Analysis
 8: Sequoia Ave & Cochran St

03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.5	0.0	11.2	0.0	3.0	0.0	6.4
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.33	0.00	0.37	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	346	0	411	0	229	0	318
Grp Sat Flow (s), veh/h/ln	0	1585	0	1769	0	1760	0	1748
Q Serve Time (g_s), s	0.0	13.8	0.0	22.2	0.0	7.4	0.0	15.1
Cycle Q Clear Time (g_c), s	0.0	13.8	0.0	22.2	0.0	7.4	0.0	15.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.32	0.00	0.35	0.00	0.39
Lane Grp Cap (c), veh/h	0	802	0	471	0	890	0	559
V/C Ratio (X)	0.00	0.43	0.00	0.87	0.00	0.26	0.00	0.57
Avail Cap (c_a), veh/h	0	802	0	522	0	890	0	654
Upstream Filter (I)	0.00	0.74	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.6	0.0	35.1	0.0	14.0	0.0	28.2
Incr Delay (d2), s/veh	0.0	1.3	0.0	14.2	0.0	0.7	0.0	0.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.9	0.0	49.2	0.0	14.7	0.0	29.2
1st-Term Q (Q1), veh/ln	0.0	4.8	0.0	9.4	0.0	2.8	0.0	6.2
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	1.9	0.0	0.2	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.1	0.0	11.2	0.0	3.0	0.0	6.3
%ile Storage Ratio (RQ%)	0.00	0.86	0.00	0.33	0.00	0.38	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

03/08/2021

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	290	864	8	195	731	167	33	467	425	170	227	221
Future Volume (veh/h)	290	864	8	195	731	167	33	467	425	170	227	221
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	305	909	8	205	769	176	35	492	447	179	239	233
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	332	1077	9	232	860	512	425	1210	539	361	1396	623
HCM Platoon Ratio	1.66	1.66	1.66	1.66	1.66	1.66	1.00	1.66	1.66	1.66	1.66	1.66
Prop Arrive On Green	0.31	0.50	0.50	0.22	0.40	0.40	0.03	0.57	0.57	0.13	0.65	0.65
Unsig. Movement Delay												
Ln Grp Delay, s/veh	61.1	37.2	36.8	60.9	41.3	24.3	24.4	20.3	36.9	20.7	13.2	14.2
Ln Grp LOS	E	D	D	E	D	C	C	C	D	C	B	B
Approach Vol, veh/h		1222			1150			974			651	
Approach Delay, s/veh		43.0			42.2			28.1			15.6	
Approach LOS		D			D			C			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	3.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		14.2	45.3	20.1	40.3	7.9	51.7	26.9	33.5			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		12.5	27.5	20.5	41.5	5.1	34.9	29.5	32.5			
Max Allow Headway (MAH), s		3.7	4.4	3.7	4.9	3.7	4.4	3.7	4.7			
Max Q Clear (g_c+I1), s		9.7	29.7	15.4	28.2	3.5	10.1	21.8	26.2			
Green Ext Time (g_e), s		0.1	0.0	0.2	4.4	0.0	2.1	0.5	2.8			
Prob of Phs Call (p_c)		1.00	1.00	1.00	1.00	0.69	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	0.32	0.30	1.00	0.00	0.08	0.78			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3610		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		32		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	179	0	205	0	35	0	305	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	7.7	0.0	13.4	0.0	1.5	0.0	19.8	0.0
Cycle Q Clear Time (g_c), s	7.7	0.0	13.4	0.0	1.5	0.0	19.8	0.0
Perm LT Sat Flow (s_l), veh/h/ln	597	0	0	0	922	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	42.8	0.0	0.0	0.0	40.8	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	31.5	0.0	0.0	0.0	40.8	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	361	0	232	0	425	0	332	0
V/C Ratio (X)	0.50	0.00	0.88	0.00	0.08	0.00	0.92	0.00
Avail Cap (c_a), veh/h	402	0	304	0	449	0	438	0
Upstream Filter (I)	0.09	0.00	0.65	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	20.6	0.0	46.2	0.0	24.4	0.0	40.6	0.0
Incr Delay (d2), s/veh	0.1	0.0	14.8	0.0	0.1	0.0	20.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	20.7	0.0	60.9	0.0	24.4	0.0	61.1	0.0
1st-Term Q (Q1), veh/ln	2.8	0.0	5.2	0.0	0.6	0.0	7.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.9	0.0	0.0	0.0	1.9	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.8	0.0	6.2	0.0	0.6	0.0	9.2	0.0
%ile Storage Ratio (RQ%)	0.21	0.00	0.58	0.00	0.06	0.00	0.80	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	492	0	447	0	239	0	769
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	9.4	0.0	26.2	0.0	3.2	0.0	24.2
Cycle Q Clear Time (g_c), s	0.0	9.4	0.0	26.2	0.0	3.2	0.0	24.2
Lane Grp Cap (c), veh/h	0	1210	0	530	0	1396	0	860
V/C Ratio (X)	0.00	0.41	0.00	0.84	0.00	0.17	0.00	0.89
Avail Cap (c_a), veh/h	0	1210	0	614	0	1396	0	962
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.09	0.00	0.65
Uniform Delay (d1), s/veh	0.0	19.3	0.0	27.9	0.0	13.2	0.0	34.5
Incr Delay (d2), s/veh	0.0	1.0	0.0	9.3	0.0	0.0	0.0	6.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.3	0.0	37.2	0.0	13.2	0.0	41.3
1st-Term Q (Q1), veh/ln	0.0	3.3	0.0	8.4	0.0	1.2	0.0	8.4
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	1.4	0.0	0.0	0.0	0.8

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.5	0.0	9.8	0.0	1.2	0.0	9.2
%ile Storage Ratio (RQ%)	0.00	0.17	0.00	0.32	0.00	0.39	0.00	0.24
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data































Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	447	0	470	0	233	0	176
Grp Sat Flow (s), veh/h/ln	0	1585	0	1865	0	1585	0	1585
Q Serve Time (g_s), s	0.0	27.7	0.0	26.2	0.0	8.1	0.0	8.7
Cycle Q Clear Time (g_c), s	0.0	27.7	0.0	26.2	0.0	8.1	0.0	8.7
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.02	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	539	0	556	0	623	0	512
V/C Ratio (X)	0.00	0.83	0.00	0.84	0.00	0.37	0.00	0.34
Avail Cap (c_a), veh/h	0	539	0	645	0	623	0	558
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.09	0.00	0.65
Uniform Delay (d1), s/veh	0.0	23.2	0.0	27.9	0.0	14.1	0.0	24.0
Incr Delay (d2), s/veh	0.0	13.7	0.0	8.9	0.0	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
Control Delay (d), s/veh	0.0	36.9	0.0	36.8	0.0	14.2	0.0	24.3
1st-Term Q (Q1), veh/ln	0.0	7.2	0.0	8.8	0.0	2.4	0.0	2.9
2nd-Term Q (Q2), veh/ln	0.0	2.1	0.0	1.4	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	9.3	0.0	10.2	0.0	2.5	0.0	2.9
%ile Storage Ratio (RQ%)	0.00	1.57	0.00	0.33	0.00	0.18	0.00	0.47
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	34.7
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
2: Tapo St & E Los Angeles Ave

03/08/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	 
Traffic Volume (veh/h)	418	978	49	39	652	226	65	86	84	207	48	355
Future Volume (veh/h)	418	978	49	39	652	226	65	86	84	207	48	355
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	449	1052	53	42	701	243	70	92	90	223	52	382
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	542	1455	73	69	788	273	422	645	569	482	675	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
Prop Arrive On Green	0.16	0.42	0.42	0.04	0.30	0.30	0.36	0.36	0.36	0.36	0.36	0.36
Unsig. Movement Delay												
Ln Grp Delay, s/veh	36.4	20.3	20.2	44.4	40.5	41.0	18.6	16.8	17.0	21.7	16.0	11.8
Ln Grp LOS	D	C	C	D	D	D	B	B	B	C	B	B
Approach Vol, veh/h		1554			986			252			657	
Approach Delay, s/veh		24.9			40.9			17.4			15.5	
Approach LOS		C			D			B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	2.0	4.0		5.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			31.9	7.4	36.6		31.9	16.4	27.6			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			20.5	5.1	32.9		25.0	13.5	24.5			
Max Allow Headway (MAH), s			5.1	3.7	4.9		4.1	3.7	5.0			
Max Q Clear (g_c+I1), s			7.3	3.8	21.3		16.7	11.6	21.6			
Green Ext Time (g_e), s			1.0	0.0	5.1		1.7	0.4	1.5			
Prob of Phs Call (p_c)			1.00	0.59	1.00		1.00	1.00	1.00			
Prob of Max Out (p_x)			0.00	1.00	0.49		0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			954	1781			1202	3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1788		3443		1870		2588			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1575		173		1585		897			
Left Lane Group Data												
Assigned Mvmt		0	5	3	0	0	1	7	0			
Lane Assignment			L	L (Prot)			L	L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis

2: Tapo St & E Los Angeles Ave

03/08/2021

Lanes in Grp	0	1	1	0	0	1	2	0
Grp Vol (v), veh/h	0	70	42	0	0	223	449	0
Grp Sat Flow (s), veh/h/ln	0	954	1781	0	0	1202	1728	0
Q Serve Time (g_s), s	0.0	4.0	1.8	0.0	0.0	11.7	9.6	0.0
Cycle Q Clear Time (g_c), s	0.0	5.3	1.8	0.0	0.0	14.7	9.6	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	954	0	0	0	1202	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	27.4	0.0	0.0	0.0	27.4	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	26.0	0.0	0.0	0.0	24.5	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	4.0	0.0	0.0	0.0	11.7	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	422	69	0	0	482	542	0
V/C Ratio (X)	0.00	0.17	0.61	0.00	0.00	0.46	0.83	0.00
Avail Cap (c_a), veh/h	0	422	120	0	0	482	614	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.09	0.62	0.00
Uniform Delay (d1), s/veh	0.0	17.7	36.0	0.0	0.0	21.4	31.0	0.0
Incr Delay (d2), s/veh	0.0	0.8	8.4	0.0	0.0	0.3	5.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.6	44.4	0.0	0.0	21.7	36.4	0.0
1st-Term Q (Q1), veh/ln	0.0	0.8	0.7	0.0	0.0	3.0	3.7	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.2	0.0	0.0	0.0	0.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.9	0.9	0.0	0.0	3.0	4.1	0.0
%ile Storage Ratio (RQ%)	0.00	0.04	0.06	0.00	0.00	0.81	0.11	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	91	0	543	0	52	0	481
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	2.6	0.0	19.3	0.0	1.4	0.0	19.6
Cycle Q Clear Time (g_c), s	0.0	2.6	0.0	19.3	0.0	1.4	0.0	19.6
Lane Grp Cap (c), veh/h	0	641	0	751	0	675	0	541
V/C Ratio (X)	0.00	0.14	0.00	0.72	0.00	0.08	0.00	0.89
Avail Cap (c_a), veh/h	0	641	0	769	0	675	0	573
Upstream Filter (I)	0.00	1.00	0.00	0.62	0.00	0.09	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.4	0.0	18.2	0.0	16.0	0.0	25.2
Incr Delay (d2), s/veh	0.0	0.5	0.0	2.1	0.0	0.0	0.0	15.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.8	0.0	20.3	0.0	16.0	0.0	40.5
1st-Term Q (Q1), veh/ln	0.0	1.0	0.0	6.7	0.0	0.5	0.0	7.3
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.4	0.0	0.0	0.0	2.3

HCM 6th Signalized Intersection Capacity Analysis 2: Tapo St & E Los Angeles Ave

03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.1	0.0	7.2	0.0	0.5	0.0	9.6
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.19	0.00	0.15	0.00	0.62
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data













Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	91	0	562	0	382	0	463
Grp Sat Flow (s), veh/h/ln	0	1587	0	1839	0	1585	0	1709
Q Serve Time (g_s), s	0.0	2.9	0.0	19.3	0.0	11.6	0.0	19.6
Cycle Q Clear Time (g_c), s	0.0	2.9	0.0	19.3	0.0	11.6	0.0	19.6
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	11.9	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.99	0.00	0.09	0.00	1.00	0.00	0.53
Lane Grp Cap (c), veh/h	0	573	0	777	0	821	0	520
V/C Ratio (X)	0.00	0.16	0.00	0.72	0.00	0.47	0.00	0.89
Avail Cap (c_a), veh/h	0	573	0	796	0	821	0	551
Upstream Filter (I)	0.00	1.00	0.00	0.62	0.00	0.09	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.5	0.0	18.2	0.0	11.6	0.0	25.2
Incr Delay (d2), s/veh	0.0	0.6	0.0	2.0	0.0	0.2	0.0	15.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.0	0.0	20.2	0.0	11.8	0.0	41.0
1st-Term Q (Q1), veh/ln	0.0	1.0	0.0	7.0	0.0	3.3	0.0	7.1
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.4	0.0	0.0	0.0	2.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.1	0.0	7.4	0.0	3.4	0.0	9.3
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.19	0.00	0.90	0.00	0.60
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	27.1
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
3: E Los Angeles Ave

03/08/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (veh/h)	0	1313	0	0	897	0	0	0	0	0	0	0
Future Volume (veh/h)	0	1313	0	0	897	0	0	0	0	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	1412	0	0	965	0	0	0	0	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	1809	0	0	1809	0	0	612	0	0	612	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
Prop Arrive On Green	0.00	0.51	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	14.4	0.0	0.0	10.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ln Grp LOS	A	B	A	A	B	A	A	A	A	A	A	A
Approach Vol, veh/h		1412			965			0			0	
Approach Delay, s/veh		14.4			10.2			0.0			0.0	
Approach LOS		B			B							
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			32.5		22.5		32.5		22.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			28.0		18.0		28.0		18.0			
Max Allow Headway (MAH), s			4.9		0.0		4.9		0.0			
Max Q Clear (g_c+I1), s			19.8		0.0		12.1		0.0			
Green Ext Time (g_e), s			5.4		0.0		5.6		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3741		1870		3741		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis
 3: E Los Angeles Ave

03/08/2021

Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	28.0	0.0	18.0	0.0	28.0	0.0	18.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	1412	0	0	0	965	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	17.8	0.0	0.0	0.0	10.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	17.8	0.0	0.0	0.0	10.1	0.0	0.0
Lane Grp Cap (c), veh/h	0	1809	0	612	0	1809	0	612
V/C Ratio (X)	0.00	0.78	0.00	0.00	0.00	0.53	0.00	0.00
Avail Cap (c_a), veh/h	0	1809	0	612	0	1809	0	612
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	11.0	0.0	0.0	0.0	9.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	3.4	0.0	0.0	0.0	1.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.4	0.0	0.0	0.0	10.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.6	0.0	0.0	0.0	2.6	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.9	0.0	0.0	0.0	0.3	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.4	0.0	0.0	0.0	2.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.41	0.00	0.00	0.00	0.58	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

HCM 6th Signalized Intersection Capacity Analysis

4: Hlidden Ranch Dr

03/08/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	124	0	0	186	0
Future Volume (veh/h)	0	0	0	0	0	0	0	124	0	0	186	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	132	0	0	198	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	748	0	0	748	0	0	748	0	0	748	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
Prop Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.40	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0	9.9	0.0
Ln Grp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			0			132			198	
Approach Delay, s/veh		0.0			0.0			9.2			9.9	
Approach LOS								A			A	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			22.5		22.5		22.5		22.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			18.0		18.0		18.0		18.0			
Max Allow Headway (MAH), s			5.1		0.0		5.1		0.0			
Max Q Clear (g_c+I1), s			4.1		0.0		5.2		0.0			
Green Ext Time (g_e), s			0.5		0.0		0.8		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1870		1870		1870		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis

4: Hidden Ranch Dr

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Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	18.0	0.0	18.0	0.0	18.0	0.0	18.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	132	0	0	0	198	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	1870	0	1870	0	1870
Q Serve Time (g_s), s	0.0	2.1	0.0	0.0	0.0	3.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	2.1	0.0	0.0	0.0	3.2	0.0	0.0
Lane Grp Cap (c), veh/h	0	748	0	748	0	748	0	748
V/C Ratio (X)	0.00	0.18	0.00	0.00	0.00	0.26	0.00	0.00
Avail Cap (c_a), veh/h	0	748	0	748	0	748	0	748
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.7	0.0	0.0	0.0	9.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.0	0.0	0.9	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
Control Delay (d), s/veh	0.0	9.2	0.0	0.0	0.0	9.9	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	0.0	0.0	1.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.7	0.0	0.0	0.0	1.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A

HCM 6th Signalized Intersection Capacity Analysis

5:

03/08/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	295	932	96	128	710	159	53	320	59	96	280	169	
Future Volume (veh/h)	295	932	96	128	710	159	53	320	59	96	280	169	
Number	7	4	14	3	8	18	5	2	12	1	6	16	
Initial Q, 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		
Lanes Open During Work Zone													
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	314	991	102	136	755	169	56	340	63	102	298	180	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Opposing Right Turn Influence	Yes			Yes			Yes			Yes			
Cap, veh/h	408	1294	577	317	847	190	325	1002	184	364	720	423	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Prop Arrive On Green	0.15	0.36	0.36	0.08	0.29	0.29	0.33	0.33	0.33	0.33	0.33	0.33	
Unsig. Movement Delay													
Ln Grp Delay, s/veh	21.2	19.5	13.1	15.1	37.2	37.4	20.4	16.5	16.6	20.8	17.4	17.8	
Ln Grp LOS	C	B	B	B	D	D	C	B	B	C	B	B	
Approach Vol, veh/h		1407			1060			459			580		
Approach Delay, s/veh		19.4			34.4			17.0			18.2		
Approach LOS		B			C			B			B		
Timer:		1	2	3	4	5	6	7	8				
Assigned Phs			2	3	4		6	7	8				
Case No			6.0	1.1	3.0		6.0	1.1	4.0				
Phs Duration (G+Y+Rc), s			24.6	9.1	26.4		24.6	13.3	22.1				
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5				
Max Green (Gmax), s			19.0	5.1	22.4		19.0	9.5	18.0				
Max Allow Headway (MAH), s			5.3	3.8	5.1		5.3	3.8	5.3				
Max Q Clear (g_c+I1), s			11.6	5.1	16.8		12.4	8.8	17.0				
Green Ext Time (g_e), s			1.6	0.0	3.3		1.9	0.1	0.6				
Prob of Phs Call (p_c)			1.00	0.90	1.00		1.00	0.99	1.00				
Prob of Max Out (p_x)			0.00	1.00	0.95		0.00	1.00	1.00				
Left-Turn Movement Data													
Assigned Mvmt			5	3			1	7					
Mvmt Sat Flow, veh/h			916	1781			982	1781					
Through Movement Data													
Assigned Mvmt			2		4		6		8				
Mvmt Sat Flow, veh/h			2999		3554		2153		2885				
Right-Turn Movement Data													
Assigned Mvmt			12		14		16		18				
Mvmt Sat Flow, veh/h			550		1585		1266		646				
Left Lane Group Data													
Assigned Mvmt		0	5	3	0	0	1	7	0				
Lane Assignment			LL (Pr/Pm)					LL (Pr/Pm)					

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Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	56	136	0	0	102	314	0
Grp Sat Flow (s), veh/h/ln	0	916	1781	0	0	982	1781	0
Q Serve Time (g_s), s	0.0	3.0	3.1	0.0	0.0	5.2	6.8	0.0
Cycle Q Clear Time (g_c), s	0.0	9.6	3.1	0.0	0.0	10.4	6.8	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	916	516	0	0	982	605	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	20.1	17.6	0.0	0.0	20.1	19.4	0.0
Perm LT Serve Time (g_u), s	0.0	13.4	7.1	0.0	0.0	14.9	2.6	0.0
Perm LT Q Serve Time (g_ps), s	0.0	3.0	3.8	0.0	0.0	5.2	2.6	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	325	317	0	0	364	408	0
V/C Ratio (X)	0.00	0.17	0.43	0.00	0.00	0.28	0.77	0.00
Avail Cap (c_a), veh/h	0	325	332	0	0	364	428	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.95	1.00	0.00
Uniform Delay (d1), s/veh	0.0	19.2	14.1	0.0	0.0	18.9	13.3	0.0
Incr Delay (d2), s/veh	0.0	1.1	0.9	0.0	0.0	1.8	7.9	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.4	15.1	0.0	0.0	20.8	21.2	0.0
1st-Term Q (Q1), veh/ln	0.0	0.6	1.1	0.0	0.0	1.1	2.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.1	0.0	0.0	0.2	0.9	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.7	1.2	0.0	0.0	1.3	3.1	0.0
%ile Storage Ratio (RQ%)	0.00	0.04	0.03	0.00	0.00	0.02	0.13	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	1
Grp Vol (v), veh/h	0	200	0	991	0	245	0	465
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	5.1	0.0	14.8	0.0	6.4	0.0	15.0
Cycle Q Clear Time (g_c), s	0.0	5.1	0.0	14.8	0.0	6.4	0.0	15.0
Lane Grp Cap (c), veh/h	0	594	0	1294	0	594	0	521
V/C Ratio (X)	0.00	0.34	0.00	0.77	0.00	0.41	0.00	0.89
Avail Cap (c_a), veh/h	0	594	0	1327	0	594	0	533
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.95	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.0	0.0	16.8	0.0	15.4	0.0	20.3
Incr Delay (d2), s/veh	0.0	1.5	0.0	2.7	0.0	2.0	0.0	16.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.5	0.0	19.5	0.0	17.4	0.0	37.2
1st-Term Q (Q1), veh/ln	0.0	1.8	0.0	5.3	0.0	2.3	0.0	5.6
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.5	0.0	0.3	0.0	2.4

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.1	0.0	5.8	0.0	2.7	0.0	8.0
%ile Storage Ratio (RQ%)	0.00	0.11	0.00	0.24	0.00	0.04	0.00	0.21
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	203	0	102	0	233	0	459
Grp Sat Flow (s), veh/h/ln	0	1771	0	1585	0	1642	0	1754
Q Serve Time (g_s), s	0.0	5.2	0.0	2.6	0.0	6.6	0.0	15.0
Cycle Q Clear Time (g_c), s	0.0	5.2	0.0	2.6	0.0	6.6	0.0	15.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.31	0.00	1.00	0.00	0.77	0.00	0.37
Lane Grp Cap (c), veh/h	0	592	0	577	0	549	0	515
V/C Ratio (X)	0.00	0.34	0.00	0.18	0.00	0.43	0.00	0.89
Avail Cap (c_a), veh/h	0	592	0	592	0	549	0	526
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.95	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.0	0.0	13.0	0.0	15.5	0.0	20.3
Incr Delay (d2), s/veh	0.0	1.6	0.0	0.1	0.0	2.3	0.0	17.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.6	0.0	13.1	0.0	17.8	0.0	37.4
1st-Term Q (Q1), veh/ln	0.0	1.9	0.0	0.8	0.0	2.2	0.0	5.5
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.3	0.0	2.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.1	0.0	0.9	0.0	2.6	0.0	8.0
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.04	0.00	0.04	0.00	0.21
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	23.4
HCM 6th LOS	C

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	395	662	53	112	467	406	83	835	112	355	610	463
Future Volume (veh/h)	395	662	53	112	467	406	83	835	112	355	610	463
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	411	690	55	117	486	423	86	870	117	370	635	482
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	406	1225	546	148	711	495	170	924	412	388	1650	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.23	0.34	0.34	0.08	0.20	0.20	0.05	0.26	0.26	0.11	0.32	0.32
Unsig. Movement Delay												
Ln Grp Delay, s/veh	82.7	24.6	20.1	47.7	35.5	40.1	44.1	51.1	28.3	73.6	24.2	57.2
Ln Grp LOS	F	C	C	D	D	D	D	D	C	E	C	E
Approach Vol, veh/h		1156			1026			1073			1487	
Approach Delay, s/veh		45.0			38.8			48.0			47.2	
Approach LOS		D			D			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		14.6	27.9	12.0	35.5	8.9	33.6	25.0	22.5			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		10.1	23.4	12.4	26.1	5.1	28.4	20.5	18.0			
Max Allow Headway (MAH), s		3.8	5.1	3.8	5.2	3.8	4.7	3.8	4.7			
Max Q Clear (g_c+I1), s		11.6	23.6	7.8	16.2	4.2	28.6	22.5	20.0			
Green Ext Time (g_e), s		0.0	0.0	0.1	3.5	0.0	0.0	0.0	0.0			
Prob of Phs Call (p_c)		1.00	1.00	0.95	1.00	0.88	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	0.46	0.42	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		3456		1781		3456		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		5106		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Prot)		L (Prot)		L (Prot)		L (Prot)				

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Lanes in Grp	2	0	1	0	2	0	1	0
Grp Vol (v), veh/h	370	0	117	0	86	0	411	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	1781	0
Q Serve Time (g_s), s	9.6	0.0	5.8	0.0	2.2	0.0	20.5	0.0
Cycle Q Clear Time (g_c), s	9.6	0.0	5.8	0.0	2.2	0.0	20.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	388	0	148	0	170	0	406	0
V/C Ratio (X)	0.95	0.00	0.79	0.00	0.51	0.00	1.01	0.00
Avail Cap (c_a), veh/h	388	0	245	0	196	0	406	0
Upstream Filter (I)	1.00	0.00	0.78	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	39.7	0.0	40.5	0.0	41.7	0.0	34.7	0.0
Incr Delay (d2), s/veh	33.9	0.0	7.2	0.0	2.3	0.0	48.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	73.6	0.0	47.7	0.0	44.1	0.0	82.7	0.0
1st-Term Q (Q1), veh/ln	4.0	0.0	2.5	0.0	0.9	0.0	8.6	0.0
2nd-Term Q (Q2), veh/ln	1.8	0.0	0.3	0.0	0.1	0.0	5.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	5.8	0.0	2.8	0.0	1.0	0.0	14.0	0.0
%ile Storage Ratio (RQ%)	0.67	0.00	0.07	0.00	0.03	0.00	1.05	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	3	0	2
Grp Vol (v), veh/h	0	870	0	690	0	635	0	486
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1702	0	1777
Q Serve Time (g_s), s	0.0	21.6	0.0	14.2	0.0	8.7	0.0	11.4
Cycle Q Clear Time (g_c), s	0.0	21.6	0.0	14.2	0.0	8.7	0.0	11.4
Lane Grp Cap (c), veh/h	0	924	0	1225	0	1650	0	711
V/C Ratio (X)	0.00	0.94	0.00	0.56	0.00	0.38	0.00	0.68
Avail Cap (c_a), veh/h	0	924	0	1225	0	1650	0	711
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.78
Uniform Delay (d1), s/veh	0.0	32.6	0.0	24.0	0.0	23.5	0.0	33.4
Incr Delay (d2), s/veh	0.0	18.5	0.0	0.6	0.0	0.7	0.0	2.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	51.1	0.0	24.6	0.0	24.2	0.0	35.5
1st-Term Q (Q1), veh/ln	0.0	9.0	0.0	5.8	0.0	3.4	0.0	4.8
2nd-Term Q (Q2), veh/ln	0.0	2.4	0.0	0.1	0.0	0.1	0.0	0.2

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	11.4	0.0	5.9	0.0	3.5	0.0	5.0
%ile Storage Ratio (RQ%)	0.00	0.35	0.00	0.44	0.00	0.40	0.00	0.13
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	117	0	55	0	482	0	423
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	5.3	0.0	2.1	0.0	26.6	0.0	18.0
Cycle Q Clear Time (g_c), s	0.0	5.3	0.0	2.1	0.0	26.6	0.0	18.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	412	0	546	0	512	0	495
V/C Ratio (X)	0.00	0.28	0.00	0.10	0.00	0.94	0.00	0.85
Avail Cap (c_a), veh/h	0	412	0	546	0	512	0	495
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.78
Uniform Delay (d1), s/veh	0.0	26.6	0.0	20.0	0.0	29.6	0.0	29.0
Incr Delay (d2), s/veh	0.0	1.7	0.0	0.1	0.0	27.5	0.0	11.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	28.3	0.0	20.1	0.0	57.2	0.0	40.1
1st-Term Q (Q1), veh/ln	0.0	2.0	0.0	0.8	0.0	9.7	0.0	8.2
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	3.9	0.0	1.5
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.2	0.0	0.8	0.0	13.6	0.0	9.8
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.06	0.00	1.57	0.00	0.25
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	45.0
HCM 6th LOS	D

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Volume (veh/h)	199	494	191	139	351	95	237	440	170	109	355	135
Future Volume (veh/h)	199	494	191	139	351	95	237	440	170	109	355	135
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	212	526	203	148	373	101	252	468	181	116	378	144
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	370	630	242	285	696	186	426	822	316	366	785	295
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.08	0.25	0.25	0.08	0.25	0.25	0.08	0.33	0.33	0.07	0.31	0.31
Unsig. Movement Delay												
Ln Grp Delay, s/veh	19.9	31.2	31.9	19.3	22.0	22.2	17.8	22.0	22.3	14.7	21.1	21.4
Ln Grp LOS	B	C	C	B	C	C	B	C	C	B	C	C
Approach Vol, veh/h		941			622			901			638	
Approach Delay, s/veh		28.9			21.4			21.0			20.1	
Approach LOS		C			C			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		8.9	25.8	9.5	20.8	10.0	24.7	9.5	20.8			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		5.0	19.0	5.0	18.0	5.5	18.5	5.0	18.0			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	5.3	3.8	5.3			
Max Q Clear (g_c+I1), s		4.8	12.1	6.0	15.0	7.5	10.0	7.0	9.7			
Green Ext Time (g_e), s		0.0	2.3	0.0	1.3	0.0	2.1	0.0	1.8			
Prob of Phs Call (p_c)		0.88	1.00	0.93	1.00	0.99	1.00	0.98	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.45			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			2510		2509		2527		2772			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			964		964		949		742			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)				

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	116	0	148	0	252	0	212	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	2.8	0.0	4.0	0.0	5.5	0.0	5.0	0.0
Cycle Q Clear Time (g_c), s	2.8	0.0	4.0	0.0	5.5	0.0	5.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	782	0	726	0	880	0	920	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	20.2	0.0	16.3	0.0	20.2	0.0	16.3	0.0
Perm LT Serve Time (g_u), s	11.2	0.0	3.3	0.0	12.2	0.0	8.6	0.0
Perm LT Q Serve Time (g_ps), s	1.6	0.0	3.3	0.0	5.6	0.0	4.3	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	366	0	285	0	426	0	370	0
V/C Ratio (X)	0.32	0.00	0.52	0.00	0.59	0.00	0.57	0.00
Avail Cap (c_a), veh/h	383	0	285	0	426	0	370	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.72	0.00
Uniform Delay (d1), s/veh	14.2	0.0	17.6	0.0	15.6	0.0	18.3	0.0
Incr Delay (d2), s/veh	0.5	0.0	1.7	0.0	2.2	0.0	1.5	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	14.7	0.0	19.3	0.0	17.8	0.0	19.9	0.0
1st-Term Q (Q1), veh/ln	1.0	0.0	1.5	0.0	2.3	0.0	2.2	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.1	0.0	0.3	0.0	0.2	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	1.1	0.0	1.6	0.0	2.6	0.0	2.4	0.0
%ile Storage Ratio (RQ%)	0.09	0.00	0.02	0.00	0.06	0.00	0.06	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	330	0	372	0	264	0	237
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	10.0	0.0	12.9	0.0	7.8	0.0	7.5
Cycle Q Clear Time (g_c), s	0.0	10.0	0.0	12.9	0.0	7.8	0.0	7.5
Lane Grp Cap (c), veh/h	0	582	0	446	0	552	0	446
V/C Ratio (X)	0.00	0.57	0.00	0.83	0.00	0.48	0.00	0.53
Avail Cap (c_a), veh/h	0	582	0	492	0	552	0	492
Upstream Filter (I)	0.00	1.00	0.00	0.72	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	18.0	0.0	23.1	0.0	18.1	0.0	21.0
Incr Delay (d2), s/veh	0.0	4.0	0.0	8.1	0.0	3.0	0.0	1.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.0	0.0	31.2	0.0	21.1	0.0	22.0
1st-Term Q (Q1), veh/ln	0.0	3.8	0.0	5.0	0.0	3.0	0.0	2.9
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	1.0	0.0	0.5	0.0	0.1

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.4	0.0	6.0	0.0	3.4	0.0	3.0
%ile Storage Ratio (RQ%)	0.00	0.10	0.00	0.15	0.00	0.27	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	319	0	357	0	258	0	237
Grp Sat Flow (s), veh/h/ln	0	1697	0	1697	0	1699	0	1737
Q Serve Time (g_s), s	0.0	10.1	0.0	13.0	0.0	8.0	0.0	7.7
Cycle Q Clear Time (g_c), s	0.0	10.1	0.0	13.0	0.0	8.0	0.0	7.7
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.57	0.00	0.57	0.00	0.56	0.00	0.43
Lane Grp Cap (c), veh/h	0	556	0	426	0	528	0	436
V/C Ratio (X)	0.00	0.57	0.00	0.84	0.00	0.49	0.00	0.54
Avail Cap (c_a), veh/h	0	556	0	470	0	528	0	481
Upstream Filter (I)	0.00	1.00	0.00	0.72	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	18.1	0.0	23.1	0.0	18.2	0.0	21.1
Incr Delay (d2), s/veh	0.0	4.3	0.0	8.8	0.0	3.2	0.0	1.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.3	0.0	31.9	0.0	21.4	0.0	22.2
1st-Term Q (Q1), veh/ln	0.0	3.6	0.0	4.8	0.0	2.9	0.0	2.9
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	1.0	0.0	0.5	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.3	0.0	5.9	0.0	3.4	0.0	3.0
%ile Storage Ratio (RQ%)	0.00	0.10	0.00	0.15	0.00	0.27	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	23.3
HCM 6th LOS	C

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷		↶	↷	↷	↶	↷	↷
Traffic Volume (veh/h)	108	783	208	141	605	124	155	285	117	92	233	77
Future Volume (veh/h)	108	783	208	141	605	124	155	285	117	92	233	77
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	112	816	217	147	630	129	161	297	122	96	243	80
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	305	957	254	241	1057	216	484	1591	709	456	1184	380
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.06	0.34	0.34	0.07	0.36	0.36	0.45	0.45	0.45	0.45	0.45	0.45
Unsig. Movement Delay												
Ln Grp Delay, s/veh	21.3	39.0	39.2	26.0	27.0	27.0	23.4	16.9	17.0	21.2	17.4	17.5
Ln Grp LOS	C	D	D	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		1145			906			580			419	
Approach Delay, s/veh		37.4			26.8			18.7			18.3	
Approach LOS		D			C			B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			5.0	1.1	4.0		6.0	1.1	4.0			
Phs Duration (G+Y+Rc), s			49.3	11.8	39.0		49.3	10.3	40.5			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			33.1	12.9	40.5		33.1	7.9	45.5			
Max Allow Headway (MAH), s			4.8	3.8	5.3		5.2	3.8	5.3			
Max Q Clear (g_c+I1), s			18.7	7.2	29.3		13.7	6.0	19.5			
Green Ext Time (g_e), s			2.7	0.2	5.2		2.3	0.0	5.2			
Prob of Phs Call (p_c)			1.00	0.98	1.00		1.00	0.96	1.00			
Prob of Max Out (p_x)			0.00	0.19	0.55		0.00	1.00	0.04			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			1057	1781			968	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		2776		2645		2938			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		738		849		601			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

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Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	161	147	0	0	96	112	0
Grp Sat Flow (s), veh/h/ln	0	1057	1781	0	0	968	1781	0
Q Serve Time (g_s), s	0.0	11.0	5.2	0.0	0.0	6.6	4.0	0.0
Cycle Q Clear Time (g_c), s	0.0	16.7	5.2	0.0	0.0	11.7	4.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1057	546	0	0	968	706	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	44.8	34.5	0.0	0.0	44.8	34.5	0.0
Perm LT Serve Time (g_u), s	0.0	39.0	7.2	0.0	0.0	39.7	18.4	0.0
Perm LT Q Serve Time (g_ps), s	0.0	11.0	7.2	0.0	0.0	6.6	3.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	484	241	0	0	456	305	0
V/C Ratio (X)	0.00	0.33	0.61	0.00	0.00	0.21	0.37	0.00
Avail Cap (c_a), veh/h	0	484	341	0	0	456	343	0
Upstream Filter (I)	0.00	0.82	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	21.9	23.5	0.0	0.0	20.2	20.6	0.0
Incr Delay (d2), s/veh	0.0	1.5	2.5	0.0	0.0	1.0	0.7	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	23.4	26.0	0.0	0.0	21.2	21.3	0.0
1st-Term Q (Q1), veh/ln	0.0	2.7	2.1	0.0	0.0	1.5	1.6	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.2	0.0	0.0	0.1	0.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.9	2.3	0.0	0.0	1.6	1.7	0.0
%ile Storage Ratio (RQ%)	0.00	0.05	0.04	0.00	0.00	0.18	0.05	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	297	0	522	0	161	0	381
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	5.0	0.0	27.3	0.0	5.5	0.0	17.5
Cycle Q Clear Time (g_c), s	0.0	5.0	0.0	27.3	0.0	5.5	0.0	17.5
Lane Grp Cap (c), veh/h	0	1591	0	612	0	795	0	639
V/C Ratio (X)	0.00	0.19	0.00	0.85	0.00	0.20	0.00	0.60
Avail Cap (c_a), veh/h	0	1591	0	720	0	795	0	808
Upstream Filter (I)	0.00	0.82	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.6	0.0	30.4	0.0	16.8	0.0	26.1
Incr Delay (d2), s/veh	0.0	0.2	0.0	8.6	0.0	0.6	0.0	0.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.9	0.0	39.0	0.0	17.4	0.0	27.0
1st-Term Q (Q1), veh/ln	0.0	2.0	0.0	11.3	0.0	2.2	0.0	7.2
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	1.5	0.0	0.1	0.0	0.2

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.1	0.0	12.8	0.0	2.3	0.0	7.4
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.38	0.00	0.26	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	122	0	511	0	162	0	378
Grp Sat Flow (s), veh/h/ln	0	1585	0	1737	0	1717	0	1762
Q Serve Time (g_s), s	0.0	4.6	0.0	27.3	0.0	5.7	0.0	17.5
Cycle Q Clear Time (g_c), s	0.0	4.6	0.0	27.3	0.0	5.7	0.0	17.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.42	0.00	0.49	0.00	0.34
Lane Grp Cap (c), veh/h	0	709	0	599	0	769	0	634
V/C Ratio (X)	0.00	0.17	0.00	0.85	0.00	0.21	0.00	0.60
Avail Cap (c_a), veh/h	0	709	0	704	0	769	0	802
Upstream Filter (I)	0.00	0.82	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.5	0.0	30.4	0.0	16.8	0.0	26.1
Incr Delay (d2), s/veh	0.0	0.4	0.0	8.8	0.0	0.6	0.0	0.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.0	0.0	39.2	0.0	17.5	0.0	27.0
1st-Term Q (Q1), veh/ln	0.0	1.6	0.0	11.1	0.0	2.2	0.0	7.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	1.5	0.0	0.1	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.7	0.0	12.5	0.0	2.4	0.0	7.3
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.37	0.00	0.26	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	28.1
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	539	38	204	929	122	16	310	403	191	421	345
Future Volume (veh/h)	151	539	38	204	929	122	16	310	403	191	421	345
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	180	642	45	243	1106	145	19	369	480	227	501	411
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	212	976	68	279	1164	628	261	924	412	335	1091	487
HCM Platoon Ratio	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.00
Prop Arrive On Green	0.20	0.48	0.48	0.26	0.54	0.54	0.04	0.43	0.43	0.11	0.51	0.31
Unsig. Movement Delay												
Ln Grp Delay, s/veh	58.1	20.8	20.7	38.2	25.5	10.7	20.8	19.7	120.5	27.2	16.7	41.9
Ln Grp LOS	E	C	C	D	C	B	C	B	F	C	B	D
Approach Vol, veh/h		867			1494			868			1139	
Approach Delay, s/veh		28.5			26.1			75.5			27.9	
Approach LOS		C			C			E			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	3.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		10.0	25.3	17.0	27.7	6.2	29.1	14.0	30.7			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		5.5	20.5	14.4	21.6	5.0	21.0	9.5	26.5			
Max Allow Headway (MAH), s		3.7	4.3	3.7	4.9	3.7	4.5	3.7	4.8			
Max Q Clear (g_c+I1), s		7.5	22.8	12.4	13.6	2.6	21.4	9.8	25.5			
Green Ext Time (g_e), s		0.0	0.0	0.1	2.4	0.0	0.0	0.0	0.7			
Prob of Phs Call (p_c)		0.99	1.00	1.00	1.00	0.34	1.00	0.98	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.53	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3369		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		236		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	227	0	243	0	19	0	180	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	5.5	0.0	10.4	0.0	0.6	0.0	7.8	0.0
Cycle Q Clear Time (g_c), s	5.5	0.0	10.4	0.0	0.6	0.0	7.8	0.0
Perm LT Sat Flow (s_l), veh/h/ln	649	0	0	0	612	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	22.1	0.0	0.0	0.0	20.8	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	15.1	0.0	0.0	0.0	17.4	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	11.8	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	335	0	279	0	261	0	212	0
V/C Ratio (X)	0.68	0.00	0.87	0.00	0.07	0.00	0.85	0.00
Avail Cap (c_a), veh/h	335	0	321	0	334	0	212	0
Upstream Filter (I)	0.98	0.00	0.40	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	21.9	0.0	28.8	0.0	20.6	0.0	31.4	0.0
Incr Delay (d2), s/veh	5.3	0.0	9.4	0.0	0.1	0.0	26.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	27.2	0.0	38.2	0.0	20.8	0.0	58.1	0.0
1st-Term Q (Q1), veh/ln	2.7	0.0	3.7	0.0	0.2	0.0	2.9	0.0
2nd-Term Q (Q2), veh/ln	0.5	0.0	0.7	0.0	0.0	0.0	1.6	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	3.2	0.0	4.4	0.0	0.2	0.0	4.5	0.0
%ile Storage Ratio (RQ%)	1.01	0.00	0.11	0.00	0.02	0.00	0.14	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	369	0	338	0	501	0	1106
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	5.7	0.0	11.6	0.0	7.2	0.0	23.5
Cycle Q Clear Time (g_c), s	0.0	5.7	0.0	11.6	0.0	7.2	0.0	23.5
Lane Grp Cap (c), veh/h	0	924	0	515	0	1091	0	1164
V/C Ratio (X)	0.00	0.40	0.00	0.66	0.00	0.46	0.00	0.95
Avail Cap (c_a), veh/h	0	924	0	515	0	1091	0	1177
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.98	0.00	0.40
Uniform Delay (d1), s/veh	0.0	18.5	0.0	17.7	0.0	15.4	0.0	17.6
Incr Delay (d2), s/veh	0.0	1.3	0.0	3.0	0.0	1.4	0.0	7.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.7	0.0	20.8	0.0	16.7	0.0	25.5
1st-Term Q (Q1), veh/ln	0.0	2.0	0.0	3.5	0.0	2.3	0.0	5.4
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.4	0.0	0.2	0.0	1.3

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.1	0.0	3.9	0.0	2.5	0.0	6.7
%ile Storage Ratio (RQ%)	0.00	0.22	0.00	0.13	0.00	0.80	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data






















Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	480	0	349	0	411	0	145
Grp Sat Flow (s), veh/h/ln	0	1585	0	1828	0	1585	0	1585
Q Serve Time (g_s), s	0.0	20.8	0.0	11.6	0.0	19.4	0.0	3.5
Cycle Q Clear Time (g_c), s	0.0	20.8	0.0	11.6	0.0	19.4	0.0	3.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.13	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	412	0	530	0	487	0	628
V/C Ratio (X)	0.00	1.17	0.00	0.66	0.00	0.84	0.00	0.23
Avail Cap (c_a), veh/h	0	412	0	530	0	487	0	634
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.98	0.00	0.40
Uniform Delay (d1), s/veh	0.0	22.7	0.0	17.7	0.0	25.9	0.0	10.6
Incr Delay (d2), s/veh	0.0	97.8	0.0	3.0	0.0	16.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	120.5	0.0	20.7	0.0	41.9	0.0	10.7
1st-Term Q (Q1), veh/ln	0.0	5.1	0.0	3.6	0.0	6.6	0.0	1.0
2nd-Term Q (Q2), veh/ln	0.0	11.2	0.0	0.4	0.0	2.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	16.3	0.0	4.1	0.0	8.7	0.0	1.0
%ile Storage Ratio (RQ%)	0.00	1.67	0.00	0.13	0.00	2.77	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	36.9
HCM 6th LOS	D

HCM 6th Signalized Intersection Capacity Analysis
2: Tapo St & E Los Angeles Ave

03/08/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	338	660	66	74	889	201	21	40	35	173	122	329
Future Volume (veh/h)	338	660	66	74	889	201	21	40	35	173	122	329
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	376	733	73	82	988	223	23	44	39	192	136	366
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	436	1340	133	106	991	223	335	452	355	495	524	644
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
Prop Arrive On Green	0.25	0.82	0.82	0.06	0.34	0.34	0.03	0.24	0.24	0.07	0.28	0.28
Unsig. Movement Delay												
Ln Grp Delay, s/veh	40.3	5.3	5.3	48.4	61.5	62.8	22.1	24.2	24.4	22.0	23.6	21.9
Ln Grp LOS	D	A	A	D	E	E	C	C	C	C	C	C
Approach Vol, veh/h		1182			1293			106			694	
Approach Delay, s/veh		16.4			61.3			23.8			22.3	
Approach LOS		B			E			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	2.0	4.0	1.1	3.0	2.0	4.0			
Phs Duration (G+Y+Rc), s		9.8	23.6	9.3	37.3	6.5	26.9	14.6	32.0			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		5.3	19.1	9.2	28.4	5.0	19.4	10.1	27.5			
Max Allow Headway (MAH), s		3.7	5.2	3.7	4.9	3.7	4.2	3.7	5.0			
Max Q Clear (g_c+I1), s		7.3	3.6	5.6	7.8	2.8	16.3	10.3	29.5			
Green Ext Time (g_e), s		0.0	0.3	0.0	4.5	0.0	0.7	0.0	0.0			
Prob of Phs Call (p_c)		0.99	1.00	0.84	1.00	0.40	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.07	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1891		3264		1870		2882			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1488		325		1585		649			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis

2: Tapo St & E Los Angeles Ave

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Lanes in Grp	1	0	1	0	1	0	2	0
Grp Vol (v), veh/h	192	0	82	0	23	0	376	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1728	0
Q Serve Time (g_s), s	5.3	0.0	3.6	0.0	0.8	0.0	8.3	0.0
Cycle Q Clear Time (g_c), s	5.3	0.0	3.6	0.0	0.8	0.0	8.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	1315	0	0	0	896	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	19.9	0.0	0.0	0.0	19.1	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	17.5	0.0	0.0	0.0	17.9	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	495	0	106	0	335	0	436	0
V/C Ratio (X)	0.39	0.00	0.77	0.00	0.07	0.00	0.86	0.00
Avail Cap (c_a), veh/h	495	0	205	0	402	0	436	0
Upstream Filter (I)	0.99	0.00	1.00	0.00	1.00	0.00	0.65	0.00
Uniform Delay (d1), s/veh	21.5	0.0	37.1	0.0	22.0	0.0	29.2	0.0
Incr Delay (d2), s/veh	0.5	0.0	11.3	0.0	0.1	0.0	11.1	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	22.0	0.0	48.4	0.0	22.1	0.0	40.3	0.0
1st-Term Q (Q1), veh/ln	2.5	0.0	1.5	0.0	0.3	0.0	2.8	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.3	0.0	0.0	0.0	0.7	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.6	0.0	1.8	0.0	0.3	0.0	3.5	0.0
%ile Storage Ratio (RQ%)	0.85	0.00	0.12	0.00	0.03	0.00	0.09	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	41	0	399	0	136	0	608
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	1.4	0.0	5.8	0.0	4.5	0.0	27.3
Cycle Q Clear Time (g_c), s	0.0	1.4	0.0	5.8	0.0	4.5	0.0	27.3
Lane Grp Cap (c), veh/h	0	424	0	729	0	524	0	611
V/C Ratio (X)	0.00	0.10	0.00	0.55	0.00	0.26	0.00	1.00
Avail Cap (c_a), veh/h	0	424	0	729	0	524	0	611
Upstream Filter (I)	0.00	1.00	0.00	0.65	0.00	0.99	0.00	1.00
Uniform Delay (d1), s/veh	0.0	23.7	0.0	4.7	0.0	22.4	0.0	26.2
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.6	0.0	1.2	0.0	35.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	24.2	0.0	5.3	0.0	23.6	0.0	61.5
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	1.2	0.0	1.9	0.0	10.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.2	0.0	6.0

HCM 6th Signalized Intersection Capacity Analysis 2: Tapo St & E Los Angeles Ave

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.6	0.0	1.4	0.0	2.0	0.0	16.2
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.04	0.00	0.66	0.00	1.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	42	0	407	0	366	0	603
Grp Sat Flow (s), veh/h/ln	0	1603	0	1812	0	1585	0	1754
Q Serve Time (g_s), s	0.0	1.6	0.0	5.8	0.0	14.3	0.0	27.5
Cycle Q Clear Time (g_c), s	0.0	1.6	0.0	5.8	0.0	14.3	0.0	27.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.93	0.00	0.18	0.00	1.00	0.00	0.37
Lane Grp Cap (c), veh/h	0	383	0	744	0	644	0	603
V/C Ratio (X)	0.00	0.11	0.00	0.55	0.00	0.57	0.00	1.00
Avail Cap (c_a), veh/h	0	383	0	744	0	644	0	603
Upstream Filter (I)	0.00	1.00	0.00	0.65	0.00	0.99	0.00	1.00
Uniform Delay (d1), s/veh	0.0	23.8	0.0	4.7	0.0	18.3	0.0	26.2
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.6	0.0	3.6	0.0	36.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	24.4	0.0	5.3	0.0	21.9	0.0	62.8
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	1.3	0.0	4.6	0.0	10.1
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.6	0.0	6.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.6	0.0	1.4	0.0	5.2	0.0	16.2
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.04	0.00	1.70	0.00	1.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	35.6
HCM 6th LOS	D

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

03/08/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (veh/h)	0	843	0	0	1230	0	0	0	0	0	0	0
Future Volume (veh/h)	0	843	0	0	1230	0	0	0	0	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	947	0	0	1382	0	0	0	0	0	0	0
Peak Hour Factor	0.92	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	1648	0	0	1648	0	0	697	0	0	697	0
HCM Platoon Ratio	1.00	1.25	1.00	1.00	1.25	1.00	1.00	1.25	1.00	1.00	1.10	1.00
Prop Arrive On Green	0.00	0.58	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	9.6	0.0	0.0	15.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ln Grp LOS	A	A	A	A	B	A	A	A	A	A	A	A
Approach Vol, veh/h		947			1382			0			0	
Approach Delay, s/veh		9.6			15.2			0.0			0.0	
Approach LOS		A			B							
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			30.0		25.0		30.0		25.0			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			25.5		20.5		25.5		20.5			
Max Allow Headway (MAH), s			4.9		0.0		4.9		0.0			
Max Q Clear (g_c+I1), s			11.2		0.0		19.5		0.0			
Green Ext Time (g_e), s			5.2		0.0		4.1		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3741		1870		3741		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis
 3: E Los Angeles Ave

03/08/2021

Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	25.5	0.0	20.5	0.0	25.5	0.0	20.5
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	947	0	0	0	1382	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	9.2	0.0	0.0	0.0	17.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	9.2	0.0	0.0	0.0	17.5	0.0	0.0
Lane Grp Cap (c), veh/h	0	1648	0	697	0	1648	0	697
V/C Ratio (X)	0.00	0.57	0.00	0.00	0.00	0.84	0.00	0.00
Avail Cap (c_a), veh/h	0	1648	0	697	0	1648	0	697
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.1	0.0	0.0	0.0	9.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.5	0.0	0.0	0.0	5.3	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
Control Delay (d), s/veh	0.0	9.6	0.0	0.0	0.0	15.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.2	0.0	0.0	0.0	3.6	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	1.2	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis
 3: E Los Angeles Ave

03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.5	0.0	0.0	0.0	4.8	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.64	0.00	0.00	0.00	1.39	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data













Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	12.9
HCM 6th LOS	B

HCM 6th Signalized Intersection Capacity Analysis
4: Hlidden Ranch Dr

03/08/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	258	0	0	88	0
Future Volume (veh/h)	0	0	0	0	0	0	0	258	0	0	88	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	300	0	0	102	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	823	0	0	823	0	0	711	0	0	711	0
HCM Platoon Ratio	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.38	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.1	0.0	0.0	10.6	0.0
Ln Grp LOS	A	A	A	A	A	A	A	B	A	A	B	A
Approach Vol, veh/h		0			0			300			102	
Approach Delay, s/veh		0.0			0.0			14.1			10.6	
Approach LOS								B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			23.5		26.5		23.5		26.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			19.0		22.0		19.0		22.0			
Max Allow Headway (MAH), s			5.1		0.0		5.1		0.0			
Max Q Clear (g_c+I1), s			8.2		0.0		3.8		0.0			
Green Ext Time (g_e), s			1.2		0.0		0.4		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1870		1870		1870		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis

4: Hidden Ranch Dr

03/08/2021

Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	19.0	0.0	22.0	0.0	19.0	0.0	22.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	300	0	0	0	102	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	1870	0	1870	0	1870
Q Serve Time (g_s), s	0.0	6.2	0.0	0.0	0.0	1.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	6.2	0.0	0.0	0.0	1.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	711	0	823	0	711	0	823
V/C Ratio (X)	0.00	0.42	0.00	0.00	0.00	0.14	0.00	0.00
Avail Cap (c_a), veh/h	0	711	0	823	0	711	0	823
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	12.2	0.0	0.0	0.0	10.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.8	0.0	0.0	0.0	0.4	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
Control Delay (d), s/veh	0.0	14.1	0.0	0.0	0.0	10.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	2.1	0.0	0.0	0.0	0.6	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.1	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

4: Hidden Ranch Dr

03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.5	0.0	0.0	0.0	0.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.79	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

























Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	13.2
HCM 6th LOS	B

HCM 6th Signalized Intersection Capacity Analysis
5: Sequoia Ave & Cochran St

03/08/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	591	49	90	807	129	93	456	50	107	324	275
Future Volume (veh/h)	198	591	49	90	807	129	93	456	50	107	324	275
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	275	821	68	125	1121	179	129	633	69	149	450	382
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	310	1230	549	363	1163	519	204	1070	116	256	604	511
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.10	0.35	0.35	0.08	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
Unsig. Movement Delay												
Ln Grp Delay, s/veh	39.8	16.7	12.4	12.1	36.5	14.4	39.7	19.6	19.6	32.4	24.1	25.1
Ln Grp LOS	D	B	B	B	D	B	D	B	B	C	C	C
Approach Vol, veh/h		1164			1425			831			981	
Approach Delay, s/veh		21.9			31.6			22.7			25.8	
Approach LOS		C			C			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	1.1	3.0		6.0	1.1	3.0			
Phs Duration (G+Y+Rc), s			22.7	8.8	23.5		22.7	9.8	22.5			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			18.2	5.0	18.3		18.2	5.3	18.0			
Max Allow Headway (MAH), s			5.2	3.7	4.8		5.2	3.7	4.8			
Max Q Clear (g_c+1), s			20.2	4.5	12.8		20.2	7.3	19.0			
Green Ext Time (g_e), s			0.0	0.0	2.5		0.0	0.0	0.0			
Prob of Phs Call (p_c)			1.00	0.85	1.00		1.00	0.99	1.00			
Prob of Max Out (p_x)			0.00	1.00	0.89		0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			660	1781			745	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3232		3554		1825		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			352		1585		1544		1585			
Left Lane Group Data												
Assigned Mvmt		0	5	3	0	0	1	7	0			
Lane Assignment			LL (Pr/Pm)					LL (Pr/Pm)				

HCM 6th Signalized Intersection Capacity Analysis
5: Sequoia Ave & Cochran St

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Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	129	125	0	0	149	275	0
Grp Sat Flow (s), veh/h/ln	0	660	1781	0	0	745	1781	0
Q Serve Time (g_s), s	0.0	6.1	2.5	0.0	0.0	9.2	5.3	0.0
Cycle Q Clear Time (g_c), s	0.0	18.2	2.5	0.0	0.0	18.2	5.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	660	625	0	0	745	424	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	18.2	18.0	0.0	0.0	18.2	18.0	0.0
Perm LT Serve Time (g_u), s	0.0	6.1	8.2	0.0	0.0	9.2	1.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	6.1	2.4	0.0	0.0	9.2	1.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	204	363	0	0	256	310	0
V/C Ratio (X)	0.00	0.63	0.34	0.00	0.00	0.58	0.89	0.00
Avail Cap (c_a), veh/h	0	204	386	0	0	256	310	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.93	1.00	0.00
Uniform Delay (d1), s/veh	0.0	25.8	11.6	0.0	0.0	23.6	14.6	0.0
Incr Delay (d2), s/veh	0.0	14.0	0.6	0.0	0.0	8.7	25.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	39.7	12.1	0.0	0.0	32.4	39.8	0.0
1st-Term Q (Q1), veh/ln	0.0	1.5	0.7	0.0	0.0	1.7	1.7	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.8	0.1	0.0	0.0	0.6	2.2	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.3	0.8	0.0	0.0	2.3	3.9	0.0
%ile Storage Ratio (RQ%)	0.00	0.58	0.14	0.00	0.00	0.39	0.58	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	2
Grp Vol (v), veh/h	0	348	0	821	0	438	0	1121
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	8.9	0.0	10.8	0.0	12.0	0.0	17.0
Cycle Q Clear Time (g_c), s	0.0	8.9	0.0	10.8	0.0	12.0	0.0	17.0
Lane Grp Cap (c), veh/h	0	588	0	1230	0	588	0	1163
V/C Ratio (X)	0.00	0.59	0.00	0.67	0.00	0.75	0.00	0.96
Avail Cap (c_a), veh/h	0	588	0	1230	0	588	0	1163
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.93	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.3	0.0	15.3	0.0	16.3	0.0	18.2
Incr Delay (d2), s/veh	0.0	4.3	0.0	1.4	0.0	7.8	0.0	18.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.6	0.0	16.7	0.0	24.1	0.0	36.5
1st-Term Q (Q1), veh/ln	0.0	2.9	0.0	3.4	0.0	3.9	0.0	5.5
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.2	0.0	1.3	0.0	3.0

HCM 6th Signalized Intersection Capacity Analysis

5: Sequoia Ave & Cochran St

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.6	0.0	3.7	0.0	5.1	0.0	8.4
%ile Storage Ratio (RQ%)	0.00	0.38	0.00	0.06	0.00	0.11	0.00	0.20
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		R		T+R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	354	0	68	0	394	0	179
Grp Sat Flow (s), veh/h/ln	0	1807	0	1585	0	1592	0	1585
Q Serve Time (g_s), s	0.0	9.0	0.0	1.6	0.0	12.1	0.0	4.7
Cycle Q Clear Time (g_c), s	0.0	9.0	0.0	1.6	0.0	12.1	0.0	4.7
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.19	0.00	1.00	0.00	0.97	0.00	1.00
Lane Grp Cap (c), veh/h	0	598	0	549	0	527	0	519
V/C Ratio (X)	0.00	0.59	0.00	0.12	0.00	0.75	0.00	0.35
Avail Cap (c_a), veh/h	0	598	0	549	0	527	0	519
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.93	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.3	0.0	12.3	0.0	16.4	0.0	14.0
Incr Delay (d2), s/veh	0.0	4.3	0.0	0.1	0.0	8.7	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
Control Delay (d), s/veh	0.0	19.6	0.0	12.4	0.0	25.1	0.0	14.4
1st-Term Q (Q1), veh/ln	0.0	2.9	0.0	0.5	0.0	3.5	0.0	1.3
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.0	0.0	1.3	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.6	0.0	0.5	0.0	4.8	0.0	1.4
%ile Storage Ratio (RQ%)	0.00	0.39	0.00	0.08	0.00	0.11	0.00	0.24
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	26.1
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
6: Tapo Canyon Rd & Cochran St

03/08/2021

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	457	430	85	110	436	327	57	572	69	233	769	355
Future Volume (veh/h)	457	430	85	110	436	327	57	572	69	233	769	355
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	544	512	101	131	519	389	68	681	82	277	915	423
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	574	1394	622	352	705	314	129	1023	456	333	1233	974
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.27	0.39	0.39	0.07	0.20	0.20	0.04	0.29	0.29	0.10	0.35	0.35
Unsig. Movement Delay												
Ln Grp Delay, s/veh	51.4	26.1	23.8	34.8	48.0	172.8	60.0	41.1	33.0	67.7	38.5	13.6
Ln Grp LOS	D	C	C	C	D	F	E	D	C	E	D	B
Approach Vol, veh/h		1157			1039			831			1615	
Approach Delay, s/veh		37.8			93.1			41.8			37.0	
Approach LOS		D			F			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		2.0	3.0	1.1	3.0	2.0	3.0	1.1	3.0			
Phs Duration (G+Y+Rc), s		16.1	39.0	13.3	51.6	9.0	46.1	36.6	28.3			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		12.5	29.6	9.3	50.6	5.1	37.0	36.1	23.8			
Max Allow Headway (MAH), s		3.8	5.1	3.8	5.0	3.8	4.9	3.8	4.7			
Max Q Clear (g_c+I1), s		11.4	22.3	8.9	14.3	4.3	29.2	31.2	25.8			
Green Ext Time (g_e), s		0.1	2.9	0.0	4.2	0.0	4.6	0.9	0.0			
Prob of Phs Call (p_c)		1.00	1.00	0.99	1.00	0.90	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.00	1.00	0.00	0.64	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		3456		1781		3456		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Prot)		L (Pr/Pm)		L (Prot)		L (Pr/Pm)				

HCM 6th Signalized Intersection Capacity Analysis
6: Tapo Canyon Rd & Cochran St

03/08/2021

Lanes in Grp	2	0	1	0	2	0	1	0
Grp Vol (v), veh/h	277	0	131	0	68	0	544	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	1781	0
Q Serve Time (g_s), s	9.4	0.0	6.9	0.0	2.3	0.0	29.2	0.0
Cycle Q Clear Time (g_c), s	9.4	0.0	6.9	0.0	2.3	0.0	29.2	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	809	0	0	0	614	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	23.8	0.0	0.0	0.0	25.8	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	23.8	0.0	0.0	0.0	7.3	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	7.3	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	333	0	352	0	129	0	574	0
V/C Ratio (X)	0.83	0.00	0.37	0.00	0.53	0.00	0.95	0.00
Avail Cap (c_a), veh/h	360	0	358	0	147	0	633	0
Upstream Filter (I)	1.00	0.00	0.70	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	53.3	0.0	34.3	0.0	56.7	0.0	28.9	0.0
Incr Delay (d2), s/veh	14.4	0.0	0.5	0.0	3.3	0.0	22.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	67.7	0.0	34.8	0.0	60.0	0.0	51.4	0.0
1st-Term Q (Q1), veh/ln	4.1	0.0	3.0	0.0	1.0	0.0	12.2	0.0
2nd-Term Q (Q2), veh/ln	0.7	0.0	0.0	0.0	0.1	0.0	3.6	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	4.8	0.0	3.1	0.0	1.1	0.0	15.8	0.0
%ile Storage Ratio (RQ%)	1.21	0.00	0.26	0.00	0.17	0.00	1.34	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	2	0	2
Grp Vol (v), veh/h	0	681	0	512	0	915	0	519
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	20.3	0.0	12.3	0.0	27.2	0.0	16.5
Cycle Q Clear Time (g_c), s	0.0	20.3	0.0	12.3	0.0	27.2	0.0	16.5
Lane Grp Cap (c), veh/h	0	1023	0	1394	0	1233	0	705
V/C Ratio (X)	0.00	0.67	0.00	0.37	0.00	0.74	0.00	0.74
Avail Cap (c_a), veh/h	0	1023	0	1498	0	1233	0	705
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.70
Uniform Delay (d1), s/veh	0.0	37.6	0.0	25.9	0.0	34.5	0.0	45.2
Incr Delay (d2), s/veh	0.0	3.4	0.0	0.2	0.0	4.1	0.0	2.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	41.1	0.0	26.1	0.0	38.5	0.0	48.0
1st-Term Q (Q1), veh/ln	0.0	8.8	0.0	5.2	0.0	11.6	0.0	7.2
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.7	0.0	0.3

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	9.3	0.0	5.2	0.0	12.3	0.0	7.5
%ile Storage Ratio (RQ%)	0.00	0.58	0.00	0.19	0.00	1.46	0.00	0.19
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	82	0	101	0	423	0	389
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	4.7	0.0	5.0	0.0	16.8	0.0	23.8
Cycle Q Clear Time (g_c), s	0.0	4.7	0.0	5.0	0.0	16.8	0.0	23.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	32.1	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	456	0	622	0	974	0	314
V/C Ratio (X)	0.00	0.18	0.00	0.16	0.00	0.43	0.00	1.24
Avail Cap (c_a), veh/h	0	456	0	668	0	974	0	314
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.70
Uniform Delay (d1), s/veh	0.0	32.1	0.0	23.7	0.0	12.2	0.0	48.1
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.1	0.0	1.4	0.0	124.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	33.0	0.0	23.8	0.0	13.6	0.0	172.8
1st-Term Q (Q1), veh/ln	0.0	1.8	0.0	1.9	0.0	5.7	0.0	9.3
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.4	0.0	10.9
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.9	0.0	1.9	0.0	6.1	0.0	20.2
%ile Storage Ratio (RQ%)	0.00	0.30	0.00	0.69	0.00	0.78	0.00	0.50
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.7
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Intersection Summary

HCM 6th Ctrl Delay	50.6
HCM 6th LOS	D

HCM 6th Signalized Intersection Capacity Analysis
7: Tapo St & Cochran St

03/08/2021

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	219	367	128	161	328	136	93	270	80	195	386	173
Future Volume (veh/h)	219	367	128	161	328	136	93	270	80	195	386	173
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	261	437	152	192	390	162	111	321	95	232	460	206
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	383	596	205	349	488	200	365	845	246	503	861	383
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.14	0.23	0.23	0.11	0.20	0.20	0.06	0.31	0.31	0.11	0.36	0.36
Unsig. Movement Delay												
Ln Grp Delay, s/veh	24.7	31.0	31.6	22.7	37.0	38.5	16.7	22.1	22.3	14.9	22.2	22.5
Ln Grp LOS	C	C	C	C	D	D	B	C	C	B	C	C
Approach Vol, veh/h		850			744			527			898	
Approach Delay, s/veh		29.3			33.9			21.0			20.4	
Approach LOS		C			C			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		12.8	27.9	12.6	21.7	9.1	31.5	15.0	19.4			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		8.5	20.0	8.5	20.0	5.5	23.0	10.5	18.0			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	5.3	3.8	5.3			
Max Q Clear (g_c+I1), s		8.3	9.1	8.3	13.8	5.1	13.5	10.5	13.5			
Green Ext Time (g_e), s		0.0	1.8	0.0	1.9	0.0	2.9	0.0	1.4			
Prob of Phs Call (p_c)		0.99	1.00	0.98	1.00	0.90	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.84	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			2715		2593		2392		2458			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			790		894		1063		1008			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)				

HCM 6th Signalized Intersection Capacity Analysis
7: Tapo St & Cochran St

03/08/2021

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	232	0	192	0	111	0	261	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	6.3	0.0	6.3	0.0	3.1	0.0	8.5	0.0
Cycle Q Clear Time (g_c), s	6.3	0.0	6.3	0.0	3.1	0.0	8.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	970	0	827	0	770	0	856	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	24.5	0.0	14.9	0.0	23.4	0.0	14.9	0.0
Perm LT Serve Time (g_u), s	16.3	0.0	5.4	0.0	15.5	0.0	3.4	0.0
Perm LT Q Serve Time (g_ps), s	2.6	0.0	2.9	0.0	1.3	0.0	3.4	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	503	0	349	0	365	0	383	0
V/C Ratio (X)	0.46	0.00	0.55	0.00	0.30	0.00	0.68	0.00
Avail Cap (c_a), veh/h	509	0	357	0	385	0	384	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.88	0.00
Uniform Delay (d1), s/veh	14.3	0.0	21.0	0.0	16.2	0.0	20.5	0.0
Incr Delay (d2), s/veh	0.7	0.0	1.7	0.0	0.5	0.0	4.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	14.9	0.0	22.7	0.0	16.7	0.0	24.7	0.0
1st-Term Q (Q1), veh/ln	2.4	0.0	2.5	0.0	1.2	0.0	3.3	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.2	0.0	0.0	0.0	0.5	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.4	0.0	2.6	0.0	1.2	0.0	3.8	0.0
%ile Storage Ratio (RQ%)	0.52	0.00	0.56	0.00	0.23	0.00	0.80	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	208	0	298	0	341	0	280
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	6.9	0.0	11.6	0.0	11.4	0.0	11.3
Cycle Q Clear Time (g_c), s	0.0	6.9	0.0	11.6	0.0	11.4	0.0	11.3
Lane Grp Cap (c), veh/h	0	553	0	408	0	640	0	353
V/C Ratio (X)	0.00	0.38	0.00	0.73	0.00	0.53	0.00	0.79
Avail Cap (c_a), veh/h	0	553	0	474	0	640	0	426
Upstream Filter (I)	0.00	1.00	0.00	0.88	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	20.1	0.0	26.7	0.0	19.0	0.0	28.6
Incr Delay (d2), s/veh	0.0	2.0	0.0	4.2	0.0	3.2	0.0	8.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.1	0.0	31.0	0.0	22.2	0.0	37.0
1st-Term Q (Q1), veh/ln	0.0	2.7	0.0	4.7	0.0	4.4	0.0	4.6
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.5	0.0	0.6	0.0	0.8

HCM 6th Signalized Intersection Capacity Analysis

7: Tapo St & Cochran St

03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.0	0.0	5.2	0.0	5.0	0.0	5.4
%ile Storage Ratio (RQ%)	0.00	0.11	0.00	0.13	0.00	0.38	0.00	0.08
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	208	0	291	0	325	0	272
Grp Sat Flow (s), veh/h/ln	0	1728	0	1710	0	1679	0	1689
Q Serve Time (g_s), s	0.0	7.1	0.0	11.8	0.0	11.5	0.0	11.5
Cycle Q Clear Time (g_c), s	0.0	7.1	0.0	11.8	0.0	11.5	0.0	11.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.46	0.00	0.52	0.00	0.63	0.00	0.60
Lane Grp Cap (c), veh/h	0	538	0	393	0	604	0	336
V/C Ratio (X)	0.00	0.39	0.00	0.74	0.00	0.54	0.00	0.81
Avail Cap (c_a), veh/h	0	538	0	456	0	604	0	405
Upstream Filter (I)	0.00	1.00	0.00	0.88	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	20.2	0.0	26.8	0.0	19.1	0.0	28.7
Incr Delay (d2), s/veh	0.0	2.1	0.0	4.8	0.0	3.4	0.0	9.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.3	0.0	31.6	0.0	22.5	0.0	38.5
1st-Term Q (Q1), veh/ln	0.0	2.7	0.0	4.6	0.0	4.2	0.0	4.5
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.5	0.0	0.6	0.0	0.9
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.0	0.0	5.1	0.0	4.8	0.0	5.4
%ile Storage Ratio (RQ%)	0.00	0.11	0.00	0.13	0.00	0.37	0.00	0.08
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	26.3
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
8: Sequoia Ave & Cochran St

03/08/2021

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	485	92	129	360	87	149	175	242	136	263	56
Future Volume (veh/h)	38	485	92	129	360	87	149	175	242	136	263	56
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	693	131	184	514	124	213	250	346	194	376	80
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	275	794	150	266	910	218	476	1798	802	457	1478	311
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.04	0.27	0.27	0.09	0.32	0.32	0.51	0.51	0.51	0.51	0.51	0.51
Unsig. Movement Delay												
Ln Grp Delay, s/veh	25.8	49.1	49.2	29.3	29.1	29.2	23.1	13.2	16.9	21.3	14.7	14.7
Ln Grp LOS	C	D	D	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		878			822			809			650	
Approach Delay, s/veh		47.7			29.2			17.4			16.7	
Approach LOS		D			C			B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			5.0	1.1	4.0		6.0	1.1	4.0			
Phs Duration (G+Y+Rc), s			55.1	13.8	31.1		55.1	8.4	36.5			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			43.5	13.5	29.5		43.5	5.6	37.4			
Max Allow Headway (MAH), s			4.7	3.8	5.3		5.4	3.8	5.3			
Max Q Clear (g_c+I1), s			26.1	9.2	24.2		22.2	4.2	17.1			
Green Ext Time (g_e), s			3.9	0.2	2.4		4.1	0.0	4.0			
Prob of Phs Call (p_c)			1.00	0.99	1.00		1.00	0.78	1.00			
Prob of Max Out (p_x)			0.00	0.65	1.00		0.00	1.00	0.05			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			935	1781			822	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		2982		2921		2842			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		563		615		682			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

HCM 6th Signalized Intersection Capacity Analysis
8: Sequoia Ave & Cochran St

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Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	213	184	0	0	194	54	0
Grp Sat Flow (s), veh/h/ln	0	935	1781	0	0	822	1781	0
Q Serve Time (g_s), s	0.0	16.7	7.2	0.0	0.0	16.4	2.2	0.0
Cycle Q Clear Time (g_c), s	0.0	24.1	7.2	0.0	0.0	20.2	2.2	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	935	665	0	0	822	790	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	50.6	28.6	0.0	0.0	50.6	26.6	0.0
Perm LT Serve Time (g_u), s	0.0	43.2	4.4	0.0	0.0	46.9	16.9	0.0
Perm LT Q Serve Time (g_ps), s	0.0	16.7	4.4	0.0	0.0	16.4	0.7	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	476	266	0	0	457	275	0
V/C Ratio (X)	0.00	0.45	0.69	0.00	0.00	0.42	0.20	0.00
Avail Cap (c_a), veh/h	0	476	342	0	0	457	305	0
Upstream Filter (I)	0.00	0.74	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	20.9	25.3	0.0	0.0	18.5	25.4	0.0
Incr Delay (d2), s/veh	0.0	2.2	4.1	0.0	0.0	2.9	0.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	23.1	29.3	0.0	0.0	21.3	25.8	0.0
1st-Term Q (Q1), veh/ln	0.0	3.5	2.9	0.0	0.0	3.0	0.9	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.3	0.0	0.0	0.4	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.8	3.2	0.0	0.0	3.4	0.9	0.0
%ile Storage Ratio (RQ%)	0.00	0.65	0.55	0.00	0.00	0.54	0.16	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	250	0	413	0	227	0	320
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	3.7	0.0	22.2	0.0	7.2	0.0	15.0
Cycle Q Clear Time (g_c), s	0.0	3.7	0.0	22.2	0.0	7.2	0.0	15.0
Lane Grp Cap (c), veh/h	0	1798	0	473	0	899	0	569
V/C Ratio (X)	0.00	0.14	0.00	0.87	0.00	0.25	0.00	0.56
Avail Cap (c_a), veh/h	0	1798	0	524	0	899	0	665
Upstream Filter (I)	0.00	0.74	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.1	0.0	35.1	0.0	14.0	0.0	28.2
Incr Delay (d2), s/veh	0.0	0.1	0.0	14.0	0.0	0.7	0.0	0.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	13.2	0.0	49.1	0.0	14.7	0.0	29.1
1st-Term Q (Q1), veh/ln	0.0	1.5	0.0	9.4	0.0	2.8	0.0	6.2
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	1.8	0.0	0.2	0.0	0.1

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.5	0.0	11.2	0.0	3.0	0.0	6.4
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.33	0.00	0.37	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	346	0	411	0	229	0	318
Grp Sat Flow (s), veh/h/ln	0	1585	0	1769	0	1760	0	1748
Q Serve Time (g_s), s	0.0	13.8	0.0	22.2	0.0	7.4	0.0	15.1
Cycle Q Clear Time (g_c), s	0.0	13.8	0.0	22.2	0.0	7.4	0.0	15.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.32	0.00	0.35	0.00	0.39
Lane Grp Cap (c), veh/h	0	802	0	471	0	890	0	559
V/C Ratio (X)	0.00	0.43	0.00	0.87	0.00	0.26	0.00	0.57
Avail Cap (c_a), veh/h	0	802	0	522	0	890	0	654
Upstream Filter (I)	0.00	0.74	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.6	0.0	35.1	0.0	14.0	0.0	28.2
Incr Delay (d2), s/veh	0.0	1.3	0.0	14.2	0.0	0.7	0.0	0.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.9	0.0	49.2	0.0	14.7	0.0	29.2
1st-Term Q (Q1), veh/ln	0.0	4.8	0.0	9.4	0.0	2.8	0.0	6.2
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	1.9	0.0	0.2	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.1	0.0	11.2	0.0	3.0	0.0	6.3
%ile Storage Ratio (RQ%)	0.00	0.86	0.00	0.33	0.00	0.38	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	290	864	8	195	731	167	33	467	425	170	227	221
Future Volume (veh/h)	290	864	8	195	731	167	33	467	425	170	227	221
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	305	909	8	205	769	176	35	492	447	179	239	233
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	332	1077	9	232	860	512	425	1210	539	361	1396	623
HCM Platoon Ratio	1.66	1.66	1.66	1.66	1.66	1.66	1.00	1.66	1.66	1.66	1.66	1.66
Prop Arrive On Green	0.31	0.50	0.50	0.22	0.40	0.40	0.03	0.57	0.57	0.13	0.65	0.65
Unsig. Movement Delay												
Ln Grp Delay, s/veh	61.1	37.2	36.8	60.9	41.3	24.3	24.4	20.3	36.9	20.7	13.2	14.2
Ln Grp LOS	E	D	D	E	D	C	C	C	D	C	B	B
Approach Vol, veh/h		1222			1150			974			651	
Approach Delay, s/veh		43.0			42.2			28.1			15.6	
Approach LOS		D			D			C			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	3.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		14.2	45.3	20.1	40.3	7.9	51.7	26.9	33.5			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		12.5	27.5	20.5	41.5	5.1	34.9	29.5	32.5			
Max Allow Headway (MAH), s		3.7	4.4	3.7	4.9	3.7	4.4	3.7	4.7			
Max Q Clear (g_c+I1), s		9.7	29.7	15.4	28.2	3.5	10.1	21.8	26.2			
Green Ext Time (g_e), s		0.1	0.0	0.2	4.4	0.0	2.1	0.5	2.8			
Prob of Phs Call (p_c)		1.00	1.00	1.00	1.00	0.69	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	0.32	0.30	1.00	0.00	0.08	0.78			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3610		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		32		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	179	0	205	0	35	0	305	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	7.7	0.0	13.4	0.0	1.5	0.0	19.8	0.0
Cycle Q Clear Time (g_c), s	7.7	0.0	13.4	0.0	1.5	0.0	19.8	0.0
Perm LT Sat Flow (s_l), veh/h/ln	597	0	0	0	922	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	42.8	0.0	0.0	0.0	40.8	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	31.5	0.0	0.0	0.0	40.8	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	361	0	232	0	425	0	332	0
V/C Ratio (X)	0.50	0.00	0.88	0.00	0.08	0.00	0.92	0.00
Avail Cap (c_a), veh/h	402	0	304	0	449	0	438	0
Upstream Filter (I)	0.09	0.00	0.65	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	20.6	0.0	46.2	0.0	24.4	0.0	40.6	0.0
Incr Delay (d2), s/veh	0.1	0.0	14.8	0.0	0.1	0.0	20.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	20.7	0.0	60.9	0.0	24.4	0.0	61.1	0.0
1st-Term Q (Q1), veh/ln	2.8	0.0	5.2	0.0	0.6	0.0	7.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.9	0.0	0.0	0.0	1.9	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.8	0.0	6.2	0.0	0.6	0.0	9.2	0.0
%ile Storage Ratio (RQ%)	0.97	0.00	0.16	0.00	0.06	0.00	0.30	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	492	0	447	0	239	0	769
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	9.4	0.0	26.2	0.0	3.2	0.0	24.2
Cycle Q Clear Time (g_c), s	0.0	9.4	0.0	26.2	0.0	3.2	0.0	24.2
Lane Grp Cap (c), veh/h	0	1210	0	530	0	1396	0	860
V/C Ratio (X)	0.00	0.41	0.00	0.84	0.00	0.17	0.00	0.89
Avail Cap (c_a), veh/h	0	1210	0	614	0	1396	0	962
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.09	0.00	0.65
Uniform Delay (d1), s/veh	0.0	19.3	0.0	27.9	0.0	13.2	0.0	34.5
Incr Delay (d2), s/veh	0.0	1.0	0.0	9.3	0.0	0.0	0.0	6.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.3	0.0	37.2	0.0	13.2	0.0	41.3
1st-Term Q (Q1), veh/ln	0.0	3.3	0.0	8.4	0.0	1.2	0.0	8.4
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	1.4	0.0	0.0	0.0	0.8

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.5	0.0	9.8	0.0	1.2	0.0	9.2
%ile Storage Ratio (RQ%)	0.00	0.35	0.00	0.32	0.00	0.41	0.00	0.24
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	447	0	470	0	233	0	176
Grp Sat Flow (s), veh/h/ln	0	1585	0	1865	0	1585	0	1585
Q Serve Time (g_s), s	0.0	27.7	0.0	26.2	0.0	8.1	0.0	8.7
Cycle Q Clear Time (g_c), s	0.0	27.7	0.0	26.2	0.0	8.1	0.0	8.7
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.02	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	539	0	556	0	623	0	512
V/C Ratio (X)	0.00	0.83	0.00	0.84	0.00	0.37	0.00	0.34
Avail Cap (c_a), veh/h	0	539	0	645	0	623	0	558
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.09	0.00	0.65
Uniform Delay (d1), s/veh	0.0	23.2	0.0	27.9	0.0	14.1	0.0	24.0
Incr Delay (d2), s/veh	0.0	13.7	0.0	8.9	0.0	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
Control Delay (d), s/veh	0.0	36.9	0.0	36.8	0.0	14.2	0.0	24.3
1st-Term Q (Q1), veh/ln	0.0	7.2	0.0	8.8	0.0	2.4	0.0	2.9
2nd-Term Q (Q2), veh/ln	0.0	2.1	0.0	1.4	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	9.3	0.0	10.2	0.0	2.5	0.0	2.9
%ile Storage Ratio (RQ%)	0.00	0.95	0.00	0.33	0.00	0.84	0.00	0.08
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	34.7
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
2: Tapo St & E Los Angeles Ave

03/08/2021

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	418	978	49	39	652	226	65	86	84	207	48	355
Future Volume (veh/h)	418	978	49	39	652	226	65	86	84	207	48	355
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	449	1052	53	42	701	243	70	92	90	223	52	382
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	542	1455	73	69	788	273	422	645	569	482	675	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
Prop Arrive On Green	0.16	0.42	0.42	0.04	0.30	0.30	0.36	0.36	0.36	0.36	0.36	0.36
Unsig. Movement Delay												
Ln Grp Delay, s/veh	36.4	20.3	20.2	44.4	40.5	41.0	18.6	16.8	17.0	21.7	16.0	11.8
Ln Grp LOS	D	C	C	D	D	D	B	B	B	C	B	B
Approach Vol, veh/h		1554			986			252			657	
Approach Delay, s/veh		24.9			40.9			17.4			15.5	
Approach LOS		C			D			B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	2.0	4.0		5.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			31.9	7.4	36.6		31.9	16.4	27.6			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			20.5	5.1	32.9		25.0	13.5	24.5			
Max Allow Headway (MAH), s			5.1	3.7	4.9		4.1	3.7	5.0			
Max Q Clear (g_c+I1), s			7.3	3.8	21.3		16.7	11.6	21.6			
Green Ext Time (g_e), s			1.0	0.0	5.1		1.7	0.4	1.5			
Prob of Phs Call (p_c)			1.00	0.59	1.00		1.00	1.00	1.00			
Prob of Max Out (p_x)			0.00	1.00	0.49		0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			954	1781			1202	3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1788		3443		1870		2588			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1575		173		1585		897			
Left Lane Group Data												
Assigned Mvmt		0	5	3	0	0	1	7	0			
Lane Assignment			L	L (Prot)			L	L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis

2: Tapo St & E Los Angeles Ave

03/08/2021

Lanes in Grp	0	1	1	0	0	1	2	0
Grp Vol (v), veh/h	0	70	42	0	0	223	449	0
Grp Sat Flow (s), veh/h/ln	0	954	1781	0	0	1202	1728	0
Q Serve Time (g_s), s	0.0	4.0	1.8	0.0	0.0	11.7	9.6	0.0
Cycle Q Clear Time (g_c), s	0.0	5.3	1.8	0.0	0.0	14.7	9.6	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	954	0	0	0	1202	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	27.4	0.0	0.0	0.0	27.4	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	26.0	0.0	0.0	0.0	24.5	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	4.0	0.0	0.0	0.0	11.7	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	422	69	0	0	482	542	0
V/C Ratio (X)	0.00	0.17	0.61	0.00	0.00	0.46	0.83	0.00
Avail Cap (c_a), veh/h	0	422	120	0	0	482	614	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.09	0.62	0.00
Uniform Delay (d1), s/veh	0.0	17.7	36.0	0.0	0.0	21.4	31.0	0.0
Incr Delay (d2), s/veh	0.0	0.8	8.4	0.0	0.0	0.3	5.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.6	44.4	0.0	0.0	21.7	36.4	0.0
1st-Term Q (Q1), veh/ln	0.0	0.8	0.7	0.0	0.0	3.0	3.7	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.2	0.0	0.0	0.0	0.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.9	0.9	0.0	0.0	3.0	4.1	0.0
%ile Storage Ratio (RQ%)	0.00	0.10	0.06	0.00	0.00	0.99	0.11	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	91	0	543	0	52	0	481
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	2.6	0.0	19.3	0.0	1.4	0.0	19.6
Cycle Q Clear Time (g_c), s	0.0	2.6	0.0	19.3	0.0	1.4	0.0	19.6
Lane Grp Cap (c), veh/h	0	641	0	751	0	675	0	541
V/C Ratio (X)	0.00	0.14	0.00	0.72	0.00	0.08	0.00	0.89
Avail Cap (c_a), veh/h	0	641	0	769	0	675	0	573
Upstream Filter (I)	0.00	1.00	0.00	0.62	0.00	0.09	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.4	0.0	18.2	0.0	16.0	0.0	25.2
Incr Delay (d2), s/veh	0.0	0.5	0.0	2.1	0.0	0.0	0.0	15.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.8	0.0	20.3	0.0	16.0	0.0	40.5
1st-Term Q (Q1), veh/ln	0.0	1.0	0.0	6.7	0.0	0.5	0.0	7.3
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.4	0.0	0.0	0.0	2.3

HCM 6th Signalized Intersection Capacity Analysis 2: Tapo St & E Los Angeles Ave

03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.1	0.0	7.2	0.0	0.5	0.0	9.6
%ile Storage Ratio (RQ%)	0.00	0.11	0.00	0.19	0.00	0.18	0.00	0.62
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	91	0	562	0	382	0	463
Grp Sat Flow (s), veh/h/ln	0	1587	0	1839	0	1585	0	1709
Q Serve Time (g_s), s	0.0	2.9	0.0	19.3	0.0	11.6	0.0	19.6
Cycle Q Clear Time (g_c), s	0.0	2.9	0.0	19.3	0.0	11.6	0.0	19.6
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	11.9	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.99	0.00	0.09	0.00	1.00	0.00	0.53
Lane Grp Cap (c), veh/h	0	573	0	777	0	821	0	520
V/C Ratio (X)	0.00	0.16	0.00	0.72	0.00	0.47	0.00	0.89
Avail Cap (c_a), veh/h	0	573	0	796	0	821	0	551
Upstream Filter (I)	0.00	1.00	0.00	0.62	0.00	0.09	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.5	0.0	18.2	0.0	11.6	0.0	25.2
Incr Delay (d2), s/veh	0.0	0.6	0.0	2.0	0.0	0.2	0.0	15.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.0	0.0	20.2	0.0	11.8	0.0	41.0
1st-Term Q (Q1), veh/ln	0.0	1.0	0.0	7.0	0.0	3.3	0.0	7.1
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.4	0.0	0.0	0.0	2.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.1	0.0	7.4	0.0	3.4	0.0	9.3
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.19	0.00	1.10	0.00	0.60
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0













Intersection Summary

HCM 6th Ctrl Delay	27.1
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

03/08/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (veh/h)	0	1313	0	0	897	0	0	0	0	0	0	0
Future Volume (veh/h)	0	1313	0	0	897	0	0	0	0	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	1412	0	0	965	0	0	0	0	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	1809	0	0	1809	0	0	612	0	0	612	0
HCM Platoon Ratio	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.97	1.00
Prop Arrive On Green	0.00	0.50	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	14.7	0.0	0.0	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ln Grp LOS	A	B	A	A	B	A	A	A	A	A	A	A
Approach Vol, veh/h		1412			965			0			0	
Approach Delay, s/veh		14.7			10.5			0.0			0.0	
Approach LOS		B			B							
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			32.5		22.5		32.5		22.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			28.0		18.0		28.0		18.0			
Max Allow Headway (MAH), s			4.9		0.0		4.9		0.0			
Max Q Clear (g_c+I1), s			19.9		0.0		12.2		0.0			
Green Ext Time (g_e), s			5.3		0.0		5.6		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3741		1870		3741		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis
 3: E Los Angeles Ave

03/08/2021

Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	28.0	0.0	18.0	0.0	28.0	0.0	18.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	1412	0	0	0	965	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	17.9	0.0	0.0	0.0	10.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	17.9	0.0	0.0	0.0	10.2	0.0	0.0
Lane Grp Cap (c), veh/h	0	1809	0	612	0	1809	0	612
V/C Ratio (X)	0.00	0.78	0.00	0.00	0.00	0.53	0.00	0.00
Avail Cap (c_a), veh/h	0	1809	0	612	0	1809	0	612
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	11.3	0.0	0.0	0.0	9.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	3.4	0.0	0.0	0.0	1.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.7	0.0	0.0	0.0	10.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	4.7	0.0	0.0	0.0	2.7	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.9	0.0	0.0	0.0	0.3	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis
 3: E Los Angeles Ave

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.6	0.0	0.0	0.0	3.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.45	0.00	0.00	0.00	0.60	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data













Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

HCM 6th Signalized Intersection Capacity Analysis
4: Hlidden Ranch Dr

03/08/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	124	0	0	186	0
Future Volume (veh/h)	0	0	0	0	0	0	0	124	0	0	186	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	132	0	0	198	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	823	0	0	823	0	0	711	0	0	711	0
HCM Platoon Ratio	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.97	1.00
Prop Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.37	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0	0.0	11.9	0.0
Ln Grp LOS	A	A	A	A	A	A	A	B	A	A	B	A
Approach Vol, veh/h		0			0			132			198	
Approach Delay, s/veh		0.0			0.0			11.1			11.9	
Approach LOS								B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			23.5		26.5		23.5		26.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			19.0		22.0		19.0		22.0			
Max Allow Headway (MAH), s			5.1		0.0		5.1		0.0			
Max Q Clear (g_c+I1), s			4.4		0.0		5.7		0.0			
Green Ext Time (g_e), s			0.5		0.0		0.8		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1870		1870		1870		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis

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Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	19.0	0.0	22.0	0.0	19.0	0.0	22.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	132	0	0	0	198	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	1870	0	1870	0	1870
Q Serve Time (g_s), s	0.0	2.4	0.0	0.0	0.0	3.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	2.4	0.0	0.0	0.0	3.7	0.0	0.0
Lane Grp Cap (c), veh/h	0	711	0	823	0	711	0	823
V/C Ratio (X)	0.00	0.19	0.00	0.00	0.00	0.28	0.00	0.00
Avail Cap (c_a), veh/h	0	711	0	823	0	711	0	823
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.5	0.0	0.0	0.0	11.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.0	0.0	1.0	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
Control Delay (d), s/veh	0.0	11.1	0.0	0.0	0.0	11.9	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.8	0.0	0.0	0.0	1.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.9	0.0	0.0	0.0	1.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.72	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	11.6
HCM 6th LOS	B

HCM 6th Signalized Intersection Capacity Analysis

5:

03/08/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	295	932	96	128	710	159	53	320	59	96	280	169	
Future Volume (veh/h)	295	932	96	128	710	159	53	320	59	96	280	169	
Number	7	4	14	3	8	18	5	2	12	1	6	16	
Initial Q, 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		
Lanes Open During Work Zone													
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	314	991	102	136	755	169	56	340	63	102	298	180	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Opposing Right Turn Influence	Yes			Yes			Yes			Yes			
Cap, veh/h	408	1294	577	317	847	190	325	1002	184	364	720	423	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Prop Arrive On Green	0.15	0.36	0.36	0.08	0.29	0.29	0.33	0.33	0.33	0.33	0.33	0.33	
Unsig. Movement Delay													
Ln Grp Delay, s/veh	21.2	19.5	13.1	15.1	37.2	37.4	20.4	16.5	16.6	20.8	17.4	17.8	
Ln Grp LOS	C	B	B	B	D	D	C	B	B	C	B	B	
Approach Vol, veh/h		1407			1060			459			580		
Approach Delay, s/veh		19.4			34.4			17.0			18.2		
Approach LOS		B			C			B			B		
Timer:		1	2	3	4	5	6	7	8				
Assigned Phs			2	3	4		6	7	8				
Case No			6.0	1.1	3.0		6.0	1.1	4.0				
Phs Duration (G+Y+Rc), s			24.6	9.1	26.4		24.6	13.3	22.1				
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5				
Max Green (Gmax), s			19.0	5.1	22.4		19.0	9.5	18.0				
Max Allow Headway (MAH), s			5.3	3.8	5.1		5.3	3.8	5.3				
Max Q Clear (g_c+I1), s			11.6	5.1	16.8		12.4	8.8	17.0				
Green Ext Time (g_e), s			1.6	0.0	3.3		1.9	0.1	0.6				
Prob of Phs Call (p_c)			1.00	0.90	1.00		1.00	0.99	1.00				
Prob of Max Out (p_x)			0.00	1.00	0.95		0.00	1.00	1.00				
Left-Turn Movement Data													
Assigned Mvmt			5	3			1	7					
Mvmt Sat Flow, veh/h			916	1781			982	1781					
Through Movement Data													
Assigned Mvmt			2		4		6		8				
Mvmt Sat Flow, veh/h			2999		3554		2153		2885				
Right-Turn Movement Data													
Assigned Mvmt			12		14		16		18				
Mvmt Sat Flow, veh/h			550		1585		1266		646				
Left Lane Group Data													
Assigned Mvmt		0	5	3	0	0	1	7	0				
Lane Assignment			LL (Pr/Pm)					LL (Pr/Pm)					

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Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	56	136	0	0	102	314	0
Grp Sat Flow (s), veh/h/ln	0	916	1781	0	0	982	1781	0
Q Serve Time (g_s), s	0.0	3.0	3.1	0.0	0.0	5.2	6.8	0.0
Cycle Q Clear Time (g_c), s	0.0	9.6	3.1	0.0	0.0	10.4	6.8	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	916	516	0	0	982	605	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	20.1	17.6	0.0	0.0	20.1	19.4	0.0
Perm LT Serve Time (g_u), s	0.0	13.4	7.1	0.0	0.0	14.9	2.6	0.0
Perm LT Q Serve Time (g_ps), s	0.0	3.0	3.8	0.0	0.0	5.2	2.6	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	325	317	0	0	364	408	0
V/C Ratio (X)	0.00	0.17	0.43	0.00	0.00	0.28	0.77	0.00
Avail Cap (c_a), veh/h	0	325	332	0	0	364	428	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.95	1.00	0.00
Uniform Delay (d1), s/veh	0.0	19.2	14.1	0.0	0.0	18.9	13.3	0.0
Incr Delay (d2), s/veh	0.0	1.1	0.9	0.0	0.0	1.8	7.9	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.4	15.1	0.0	0.0	20.8	21.2	0.0
1st-Term Q (Q1), veh/ln	0.0	0.6	1.1	0.0	0.0	1.1	2.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.1	0.0	0.0	0.2	0.9	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.7	1.2	0.0	0.0	1.3	3.1	0.0
%ile Storage Ratio (RQ%)	0.00	0.04	0.03	0.00	0.00	0.02	0.13	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	1
Grp Vol (v), veh/h	0	200	0	991	0	245	0	465
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	5.1	0.0	14.8	0.0	6.4	0.0	15.0
Cycle Q Clear Time (g_c), s	0.0	5.1	0.0	14.8	0.0	6.4	0.0	15.0
Lane Grp Cap (c), veh/h	0	594	0	1294	0	594	0	521
V/C Ratio (X)	0.00	0.34	0.00	0.77	0.00	0.41	0.00	0.89
Avail Cap (c_a), veh/h	0	594	0	1327	0	594	0	533
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.95	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.0	0.0	16.8	0.0	15.4	0.0	20.3
Incr Delay (d2), s/veh	0.0	1.5	0.0	2.7	0.0	2.0	0.0	16.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.5	0.0	19.5	0.0	17.4	0.0	37.2
1st-Term Q (Q1), veh/ln	0.0	1.8	0.0	5.3	0.0	2.3	0.0	5.6
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.5	0.0	0.3	0.0	2.4

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.1	0.0	5.8	0.0	2.7	0.0	8.0
%ile Storage Ratio (RQ%)	0.00	0.11	0.00	0.24	0.00	0.04	0.00	0.21
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	203	0	102	0	233	0	459
Grp Sat Flow (s), veh/h/ln	0	1771	0	1585	0	1642	0	1754
Q Serve Time (g_s), s	0.0	5.2	0.0	2.6	0.0	6.6	0.0	15.0
Cycle Q Clear Time (g_c), s	0.0	5.2	0.0	2.6	0.0	6.6	0.0	15.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.31	0.00	1.00	0.00	0.77	0.00	0.37
Lane Grp Cap (c), veh/h	0	592	0	577	0	549	0	515
V/C Ratio (X)	0.00	0.34	0.00	0.18	0.00	0.43	0.00	0.89
Avail Cap (c_a), veh/h	0	592	0	592	0	549	0	526
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.95	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.0	0.0	13.0	0.0	15.5	0.0	20.3
Incr Delay (d2), s/veh	0.0	1.6	0.0	0.1	0.0	2.3	0.0	17.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.6	0.0	13.1	0.0	17.8	0.0	37.4
1st-Term Q (Q1), veh/ln	0.0	1.9	0.0	0.8	0.0	2.2	0.0	5.5
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.3	0.0	2.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.1	0.0	0.9	0.0	2.6	0.0	8.0
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.04	0.00	0.04	0.00	0.21
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	23.4
HCM 6th LOS	C

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	395	662	53	112	467	406	83	835	112	355	610	463
Future Volume (veh/h)	395	662	53	112	467	406	83	835	112	355	610	463
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	411	690	55	117	486	423	86	870	117	370	635	482
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	406	1225	546	148	711	495	170	924	412	388	1650	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.23	0.34	0.34	0.08	0.20	0.20	0.05	0.26	0.26	0.11	0.32	0.32
Unsig. Movement Delay												
Ln Grp Delay, s/veh	82.7	24.6	20.1	47.7	35.5	40.1	44.1	51.1	28.3	73.6	24.2	57.2
Ln Grp LOS	F	C	C	D	D	D	D	D	C	E	C	E
Approach Vol, veh/h		1156			1026			1073			1487	
Approach Delay, s/veh		45.0			38.8			48.0			47.2	
Approach LOS		D			D			D			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		2.0	3.0	2.0	3.0	2.0	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		14.6	27.9	12.0	35.5	8.9	33.6	25.0	22.5			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		10.1	23.4	12.4	26.1	5.1	28.4	20.5	18.0			
Max Allow Headway (MAH), s		3.8	5.1	3.8	5.2	3.8	4.7	3.8	4.7			
Max Q Clear (g_c+I1), s		11.6	23.6	7.8	16.2	4.2	28.6	22.5	20.0			
Green Ext Time (g_e), s		0.0	0.0	0.1	3.5	0.0	0.0	0.0	0.0			
Prob of Phs Call (p_c)		1.00	1.00	0.95	1.00	0.88	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	0.46	0.42	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		3456		1781		3456		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		5106		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Prot)		L (Prot)		L (Prot)		L (Prot)				

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Lanes in Grp	2	0	1	0	2	0	1	0
Grp Vol (v), veh/h	370	0	117	0	86	0	411	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	1781	0
Q Serve Time (g_s), s	9.6	0.0	5.8	0.0	2.2	0.0	20.5	0.0
Cycle Q Clear Time (g_c), s	9.6	0.0	5.8	0.0	2.2	0.0	20.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	388	0	148	0	170	0	406	0
V/C Ratio (X)	0.95	0.00	0.79	0.00	0.51	0.00	1.01	0.00
Avail Cap (c_a), veh/h	388	0	245	0	196	0	406	0
Upstream Filter (I)	1.00	0.00	0.78	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	39.7	0.0	40.5	0.0	41.7	0.0	34.7	0.0
Incr Delay (d2), s/veh	33.9	0.0	7.2	0.0	2.3	0.0	48.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	73.6	0.0	47.7	0.0	44.1	0.0	82.7	0.0
1st-Term Q (Q1), veh/ln	4.0	0.0	2.5	0.0	0.9	0.0	8.6	0.0
2nd-Term Q (Q2), veh/ln	1.8	0.0	0.3	0.0	0.1	0.0	5.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	5.8	0.0	2.8	0.0	1.0	0.0	14.0	0.0
%ile Storage Ratio (RQ%)	0.67	0.00	0.07	0.00	0.03	0.00	1.05	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	3	0	2
Grp Vol (v), veh/h	0	870	0	690	0	635	0	486
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1702	0	1777
Q Serve Time (g_s), s	0.0	21.6	0.0	14.2	0.0	8.7	0.0	11.4
Cycle Q Clear Time (g_c), s	0.0	21.6	0.0	14.2	0.0	8.7	0.0	11.4
Lane Grp Cap (c), veh/h	0	924	0	1225	0	1650	0	711
V/C Ratio (X)	0.00	0.94	0.00	0.56	0.00	0.38	0.00	0.68
Avail Cap (c_a), veh/h	0	924	0	1225	0	1650	0	711
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.78
Uniform Delay (d1), s/veh	0.0	32.6	0.0	24.0	0.0	23.5	0.0	33.4
Incr Delay (d2), s/veh	0.0	18.5	0.0	0.6	0.0	0.7	0.0	2.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	51.1	0.0	24.6	0.0	24.2	0.0	35.5
1st-Term Q (Q1), veh/ln	0.0	9.0	0.0	5.8	0.0	3.4	0.0	4.8
2nd-Term Q (Q2), veh/ln	0.0	2.4	0.0	0.1	0.0	0.1	0.0	0.2

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	11.4	0.0	5.9	0.0	3.5	0.0	5.0
%ile Storage Ratio (RQ%)	0.00	0.35	0.00	0.44	0.00	0.40	0.00	0.13
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	117	0	55	0	482	0	423
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	5.3	0.0	2.1	0.0	26.6	0.0	18.0
Cycle Q Clear Time (g_c), s	0.0	5.3	0.0	2.1	0.0	26.6	0.0	18.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	412	0	546	0	512	0	495
V/C Ratio (X)	0.00	0.28	0.00	0.10	0.00	0.94	0.00	0.85
Avail Cap (c_a), veh/h	0	412	0	546	0	512	0	495
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.78
Uniform Delay (d1), s/veh	0.0	26.6	0.0	20.0	0.0	29.6	0.0	29.0
Incr Delay (d2), s/veh	0.0	1.7	0.0	0.1	0.0	27.5	0.0	11.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	28.3	0.0	20.1	0.0	57.2	0.0	40.1
1st-Term Q (Q1), veh/ln	0.0	2.0	0.0	0.8	0.0	9.7	0.0	8.2
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	3.9	0.0	1.5
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.2	0.0	0.8	0.0	13.6	0.0	9.8
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.06	0.00	1.57	0.00	0.25
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	45.0
HCM 6th LOS	D

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷		↶	↷		↶	↷	
Traffic Volume (veh/h)	199	494	191	139	351	95	237	440	170	109	355	135
Future Volume (veh/h)	199	494	191	139	351	95	237	440	170	109	355	135
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	212	526	203	148	373	101	252	468	181	116	378	144
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	370	630	242	285	696	186	426	822	316	366	785	295
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.08	0.25	0.25	0.08	0.25	0.25	0.08	0.33	0.33	0.07	0.31	0.31
Unsig. Movement Delay												
Ln Grp Delay, s/veh	19.9	31.2	31.9	19.3	22.0	22.2	17.8	22.0	22.3	14.7	21.1	21.4
Ln Grp LOS	B	C	C	B	C	C	B	C	C	B	C	C
Approach Vol, veh/h		941			622			901			638	
Approach Delay, s/veh		28.9			21.4			21.0			20.1	
Approach LOS		C			C			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		8.9	25.8	9.5	20.8	10.0	24.7	9.5	20.8			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		5.0	19.0	5.0	18.0	5.5	18.5	5.0	18.0			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	5.3	3.8	5.3			
Max Q Clear (g_c+I1), s		4.8	12.1	6.0	15.0	7.5	10.0	7.0	9.7			
Green Ext Time (g_e), s		0.0	2.3	0.0	1.3	0.0	2.1	0.0	1.8			
Prob of Phs Call (p_c)		0.88	1.00	0.93	1.00	0.99	1.00	0.98	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.45			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			2510		2509		2527		2772			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			964		964		949		742			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)				

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	116	0	148	0	252	0	212	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	2.8	0.0	4.0	0.0	5.5	0.0	5.0	0.0
Cycle Q Clear Time (g_c), s	2.8	0.0	4.0	0.0	5.5	0.0	5.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	782	0	726	0	880	0	920	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	20.2	0.0	16.3	0.0	20.2	0.0	16.3	0.0
Perm LT Serve Time (g_u), s	11.2	0.0	3.3	0.0	12.2	0.0	8.6	0.0
Perm LT Q Serve Time (g_ps), s	1.6	0.0	3.3	0.0	5.6	0.0	4.3	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	366	0	285	0	426	0	370	0
V/C Ratio (X)	0.32	0.00	0.52	0.00	0.59	0.00	0.57	0.00
Avail Cap (c_a), veh/h	383	0	285	0	426	0	370	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.72	0.00
Uniform Delay (d1), s/veh	14.2	0.0	17.6	0.0	15.6	0.0	18.3	0.0
Incr Delay (d2), s/veh	0.5	0.0	1.7	0.0	2.2	0.0	1.5	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	14.7	0.0	19.3	0.0	17.8	0.0	19.9	0.0
1st-Term Q (Q1), veh/ln	1.0	0.0	1.5	0.0	2.3	0.0	2.2	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.1	0.0	0.3	0.0	0.2	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	1.1	0.0	1.6	0.0	2.6	0.0	2.4	0.0
%ile Storage Ratio (RQ%)	0.09	0.00	0.02	0.00	0.06	0.00	0.06	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	330	0	372	0	264	0	237
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	10.0	0.0	12.9	0.0	7.8	0.0	7.5
Cycle Q Clear Time (g_c), s	0.0	10.0	0.0	12.9	0.0	7.8	0.0	7.5
Lane Grp Cap (c), veh/h	0	582	0	446	0	552	0	446
V/C Ratio (X)	0.00	0.57	0.00	0.83	0.00	0.48	0.00	0.53
Avail Cap (c_a), veh/h	0	582	0	492	0	552	0	492
Upstream Filter (I)	0.00	1.00	0.00	0.72	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	18.0	0.0	23.1	0.0	18.1	0.0	21.0
Incr Delay (d2), s/veh	0.0	4.0	0.0	8.1	0.0	3.0	0.0	1.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.0	0.0	31.2	0.0	21.1	0.0	22.0
1st-Term Q (Q1), veh/ln	0.0	3.8	0.0	5.0	0.0	3.0	0.0	2.9
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	1.0	0.0	0.5	0.0	0.1

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.4	0.0	6.0	0.0	3.4	0.0	3.0
%ile Storage Ratio (RQ%)	0.00	0.10	0.00	0.15	0.00	0.27	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	319	0	357	0	258	0	237
Grp Sat Flow (s), veh/h/ln	0	1697	0	1697	0	1699	0	1737
Q Serve Time (g_s), s	0.0	10.1	0.0	13.0	0.0	8.0	0.0	7.7
Cycle Q Clear Time (g_c), s	0.0	10.1	0.0	13.0	0.0	8.0	0.0	7.7
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.57	0.00	0.57	0.00	0.56	0.00	0.43
Lane Grp Cap (c), veh/h	0	556	0	426	0	528	0	436
V/C Ratio (X)	0.00	0.57	0.00	0.84	0.00	0.49	0.00	0.54
Avail Cap (c_a), veh/h	0	556	0	470	0	528	0	481
Upstream Filter (I)	0.00	1.00	0.00	0.72	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	18.1	0.0	23.1	0.0	18.2	0.0	21.1
Incr Delay (d2), s/veh	0.0	4.3	0.0	8.8	0.0	3.2	0.0	1.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.3	0.0	31.9	0.0	21.4	0.0	22.2
1st-Term Q (Q1), veh/ln	0.0	3.6	0.0	4.8	0.0	2.9	0.0	2.9
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	1.0	0.0	0.5	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.3	0.0	5.9	0.0	3.4	0.0	3.0
%ile Storage Ratio (RQ%)	0.00	0.10	0.00	0.15	0.00	0.27	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	23.3
HCM 6th LOS	C

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗	↗	↖	↗	
Traffic Volume (veh/h)	108	783	208	141	605	124	155	285	117	92	233	77
Future Volume (veh/h)	108	783	208	141	605	124	155	285	117	92	233	77
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	112	816	217	147	630	129	161	297	122	96	243	80
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	305	957	254	241	1057	216	484	1591	709	456	1184	380
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.06	0.34	0.34	0.07	0.36	0.36	0.45	0.45	0.45	0.45	0.45	0.45
Unsig. Movement Delay												
Ln Grp Delay, s/veh	21.3	39.0	39.2	26.0	27.0	27.0	23.4	16.9	17.0	21.2	17.4	17.5
Ln Grp LOS	C	D	D	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		1145			906			580			419	
Approach Delay, s/veh		37.4			26.8			18.7			18.3	
Approach LOS		D			C			B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			5.0	1.1	4.0		6.0	1.1	4.0			
Phs Duration (G+Y+Rc), s			49.3	11.8	39.0		49.3	10.3	40.5			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			33.1	12.9	40.5		33.1	7.9	45.5			
Max Allow Headway (MAH), s			4.8	3.8	5.3		5.2	3.8	5.3			
Max Q Clear (g_c+1), s			18.7	7.2	29.3		13.7	6.0	19.5			
Green Ext Time (g_e), s			2.7	0.2	5.2		2.3	0.0	5.2			
Prob of Phs Call (p_c)			1.00	0.98	1.00		1.00	0.96	1.00			
Prob of Max Out (p_x)			0.00	0.19	0.55		0.00	1.00	0.04			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			1057	1781			968	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		2776		2645		2938			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		738		849		601			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

HCM 6th Signalized Intersection Capacity Analysis

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Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	161	147	0	0	96	112	0
Grp Sat Flow (s), veh/h/ln	0	1057	1781	0	0	968	1781	0
Q Serve Time (g_s), s	0.0	11.0	5.2	0.0	0.0	6.6	4.0	0.0
Cycle Q Clear Time (g_c), s	0.0	16.7	5.2	0.0	0.0	11.7	4.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1057	546	0	0	968	706	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	44.8	34.5	0.0	0.0	44.8	34.5	0.0
Perm LT Serve Time (g_u), s	0.0	39.0	7.2	0.0	0.0	39.7	18.4	0.0
Perm LT Q Serve Time (g_ps), s	0.0	11.0	7.2	0.0	0.0	6.6	3.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	484	241	0	0	456	305	0
V/C Ratio (X)	0.00	0.33	0.61	0.00	0.00	0.21	0.37	0.00
Avail Cap (c_a), veh/h	0	484	341	0	0	456	343	0
Upstream Filter (I)	0.00	0.82	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	21.9	23.5	0.0	0.0	20.2	20.6	0.0
Incr Delay (d2), s/veh	0.0	1.5	2.5	0.0	0.0	1.0	0.7	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	23.4	26.0	0.0	0.0	21.2	21.3	0.0
1st-Term Q (Q1), veh/ln	0.0	2.7	2.1	0.0	0.0	1.5	1.6	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.2	0.0	0.0	0.1	0.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.9	2.3	0.0	0.0	1.6	1.7	0.0
%ile Storage Ratio (RQ%)	0.00	0.05	0.04	0.00	0.00	0.18	0.05	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	297	0	522	0	161	0	381
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	5.0	0.0	27.3	0.0	5.5	0.0	17.5
Cycle Q Clear Time (g_c), s	0.0	5.0	0.0	27.3	0.0	5.5	0.0	17.5
Lane Grp Cap (c), veh/h	0	1591	0	612	0	795	0	639
V/C Ratio (X)	0.00	0.19	0.00	0.85	0.00	0.20	0.00	0.60
Avail Cap (c_a), veh/h	0	1591	0	720	0	795	0	808
Upstream Filter (I)	0.00	0.82	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.6	0.0	30.4	0.0	16.8	0.0	26.1
Incr Delay (d2), s/veh	0.0	0.2	0.0	8.6	0.0	0.6	0.0	0.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.9	0.0	39.0	0.0	17.4	0.0	27.0
1st-Term Q (Q1), veh/ln	0.0	2.0	0.0	11.3	0.0	2.2	0.0	7.2
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	1.5	0.0	0.1	0.0	0.2

HCM 6th Signalized Intersection Capacity Analysis

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.1	0.0	12.8	0.0	2.3	0.0	7.4
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.38	0.00	0.26	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	122	0	511	0	162	0	378
Grp Sat Flow (s), veh/h/ln	0	1585	0	1737	0	1717	0	1762
Q Serve Time (g_s), s	0.0	4.6	0.0	27.3	0.0	5.7	0.0	17.5
Cycle Q Clear Time (g_c), s	0.0	4.6	0.0	27.3	0.0	5.7	0.0	17.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.42	0.00	0.49	0.00	0.34
Lane Grp Cap (c), veh/h	0	709	0	599	0	769	0	634
V/C Ratio (X)	0.00	0.17	0.00	0.85	0.00	0.21	0.00	0.60
Avail Cap (c_a), veh/h	0	709	0	704	0	769	0	802
Upstream Filter (I)	0.00	0.82	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.5	0.0	30.4	0.0	16.8	0.0	26.1
Incr Delay (d2), s/veh	0.0	0.4	0.0	8.8	0.0	0.6	0.0	0.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.0	0.0	39.2	0.0	17.5	0.0	27.0
1st-Term Q (Q1), veh/ln	0.0	1.6	0.0	11.1	0.0	2.2	0.0	7.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	1.5	0.0	0.1	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.7	0.0	12.5	0.0	2.4	0.0	7.3
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.37	0.00	0.26	0.00	0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	28.1
HCM 6th LOS	C
























Appendix E. Opening Year (2024) Level of Service Worksheets

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Future Year (2045) No Build

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

07/23/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	773	54	293	1331	174	22	445	578	274	603	494
Future Volume (veh/h)	216	773	54	293	1331	174	22	445	578	274	603	494
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	257	920	64	349	1585	207	26	530	688	326	718	588
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	235	1091	76	365	1409	793	175	850	379	295	1138	507
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.26	0.65	0.65	0.41	0.79	0.79	0.05	0.48	0.48	0.21	0.64	0.32
Unsig. Movement Delay												
Ln Grp Delay, s/veh	136.8	33.0	32.7	54.3	73.4	6.4	38.3	35.2	413.1	120.6	22.7	138.2
Ln Grp LOS	F	C	C	D	F	A	D	D	F	F	C	F
Approach Vol, veh/h		1241			2141			1244			1632	
Approach Delay, s/veh		54.4			63.8			244.3			83.9	
Approach LOS		D			E			F			F	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	3.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		19.0	38.0	33.2	49.8	7.7	49.3	23.0	60.0			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		14.5	33.5	29.3	44.7	5.0	43.0	18.5	55.5			
Max Allow Headway (MAH), s		3.7	4.3	3.7	4.9	3.7	4.5	3.7	4.8			
Max Q Clear (g_c+I1), s		16.5	35.5	28.6	31.7	3.5	46.8	20.5	57.5			
Green Ext Time (g_e), s		0.0	0.0	0.1	4.7	0.0	0.0	0.0	0.0			
Prob of Phs Call (p_c)		1.00	1.00	1.00	1.00	0.64	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.35	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3371		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		234		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

07/23/2020

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	326	0	349	0	26	0	257	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	14.5	0.0	26.6	0.0	1.5	0.0	18.5	0.0
Cycle Q Clear Time (g_c), s	14.5	0.0	26.6	0.0	1.5	0.0	18.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	458	0	0	0	421	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	35.5	0.0	0.0	0.0	33.5	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	18.0	0.0	0.0	0.0	27.7	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	18.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	295	0	365	0	175	0	235	0
V/C Ratio (X)	1.11	0.00	0.96	0.00	0.15	0.00	1.09	0.00
Avail Cap (c_a), veh/h	295	0	373	0	199	0	235	0
Upstream Filter (I)	0.94	0.00	0.24	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	38.3	0.0	40.7	0.0	37.9	0.0	51.5	0.0
Incr Delay (d2), s/veh	82.3	0.0	13.6	0.0	0.4	0.0	85.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	120.6	0.0	54.3	0.0	38.3	0.0	136.8	0.0
1st-Term Q (Q1), veh/ln	6.6	0.0	9.1	0.0	0.6	0.0	6.9	0.0
2nd-Term Q (Q2), veh/ln	6.7	0.0	1.4	0.0	0.0	0.0	5.6	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	13.3	0.0	10.5	0.0	0.7	0.0	12.5	0.0
%ile Storage Ratio (RQ%)	1.00	0.00	0.98	0.00	0.07	0.00	1.09	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	7.8	0.0	0.0	0.0	0.0	0.0	5.4	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	530	0	485	0	718	0	1585
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	15.5	0.0	29.7	0.0	17.1	0.0	55.5
Cycle Q Clear Time (g_c), s	0.0	15.5	0.0	29.7	0.0	17.1	0.0	55.5
Lane Grp Cap (c), veh/h	0	850	0	575	0	1138	0	1409
V/C Ratio (X)	0.00	0.62	0.00	0.84	0.00	0.63	0.00	1.13
Avail Cap (c_a), veh/h	0	850	0	575	0	1138	0	1409
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.94	0.00	0.24
Uniform Delay (d1), s/veh	0.0	31.8	0.0	21.9	0.0	20.2	0.0	14.5
Incr Delay (d2), s/veh	0.0	3.4	0.0	11.0	0.0	2.5	0.0	58.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	35.2	0.0	33.0	0.0	22.7	0.0	73.4
1st-Term Q (Q1), veh/ln	0.0	5.3	0.0	7.1	0.0	4.9	0.0	5.6
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	1.8	0.0	0.4	0.0	11.5

HCM 6th Signalized Intersection Capacity Analysis

1: Tapo Canyon Rd & E Los Angeles Ave

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.7	0.0	8.8	0.0	5.3	0.0	17.1
%ile Storage Ratio (RQ%)	0.00	0.54	0.00	0.28	0.00	1.76	0.00	0.44
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.1
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	688	0	499	0	588	0	207
Grp Sat Flow (s), veh/h/ln	0	1585	0	1828	0	1585	0	1585
Q Serve Time (g_s), s	0.0	33.5	0.0	29.7	0.0	44.8	0.0	4.2
Cycle Q Clear Time (g_c), s	0.0	33.5	0.0	29.7	0.0	44.8	0.0	4.2
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.5
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.13	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	379	0	592	0	507	0	793
V/C Ratio (X)	0.00	1.81	0.00	0.84	0.00	1.16	0.00	0.26
Avail Cap (c_a), veh/h	0	379	0	592	0	507	0	793
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.94	0.00	0.24
Uniform Delay (d1), s/veh	0.0	36.5	0.0	21.9	0.0	47.6	0.0	6.4
Incr Delay (d2), s/veh	0.0	376.6	0.0	10.7	0.0	90.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	413.1	0.0	32.7	0.0	138.2	0.0	6.4
1st-Term Q (Q1), veh/ln	0.0	9.6	0.0	7.3	0.0	17.1	0.0	1.2
2nd-Term Q (Q2), veh/ln	0.0	39.7	0.0	1.8	0.0	12.8	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	49.2	0.0	9.0	0.0	29.8	0.0	1.2
%ile Storage Ratio (RQ%)	0.00	8.34	0.00	0.29	0.00	2.23	0.00	0.19
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	77.2	0.0	0.0	0.0	20.1	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.5	0.0	0.0	0.0	0.3	0.0	0.0































Intersection Summary

HCM 6th Ctrl Delay	103.1
HCM 6th LOS	F

HCM 6th Signalized Intersection Capacity Analysis

2: Tapo St & E Los Angeles Ave

07/23/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	 
Traffic Volume (veh/h)	485	946	94	106	1274	288	30	58	50	248	174	472
Future Volume (veh/h)	485	946	94	106	1274	288	30	58	50	248	174	472
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	539	1051	104	118	1416	320	33	64	56	276	193	524
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	577	1918	190	140	1445	319	175	447	351	325	441	639
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.33	1.00	1.00	0.16	1.00	1.00	0.47	0.47	0.47	0.47	0.47	0.24
Unsig. Movement Delay												
Ln Grp Delay, s/veh	50.5	0.1	0.1	71.4	22.2	31.3	37.4	29.2	29.5	61.0	33.4	47.9
Ln Grp LOS	D	A	A	E	C	F	D	C	C	E	C	D
Approach Vol, veh/h		1694			1854			153			993	
Approach Delay, s/veh		16.1			29.7			31.1			48.7	
Approach LOS		B			C			C			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	2.0	4.0		5.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			37.1	15.4	85.5		37.1	27.5	73.4			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			32.5	17.5	75.0		32.5	23.6	68.9			
Max Allow Headway (MAH), s			5.4	3.7	4.9		4.2	3.7	5.0			
Max Q Clear (g_c+I1), s			16.0	10.9	2.0		34.6	22.8	70.9			
Green Ext Time (g_e), s			0.7	0.1	9.0		0.0	0.2	0.0			
Prob of Phs Call (p_c)			1.00	0.99	1.00		1.00	1.00	1.00			
Prob of Max Out (p_x)			0.00	0.05	0.00		0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			734	1781			1272	3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1894		3266		1870		2894			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1486		323		1585		639			
Left Lane Group Data												
Assigned Mvmt		0	5	3	0	0	1	7	0			
Lane Assignment			L	L (Prot)			L	L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis
 2: Tapo St & E Los Angeles Ave

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Lanes in Grp	0	1	1	0	0	1	2	0
Grp Vol (v), veh/h	0	33	118	0	0	276	539	0
Grp Sat Flow (s), veh/h/ln	0	734	1781	0	0	1272	1728	0
Q Serve Time (g_s), s	0.0	4.5	8.9	0.0	0.0	29.6	20.8	0.0
Cycle Q Clear Time (g_c), s	0.0	14.0	8.9	0.0	0.0	32.6	20.8	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	734	0	0	0	1272	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	32.6	0.0	0.0	0.0	32.6	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	23.1	0.0	0.0	0.0	29.6	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	4.5	0.0	0.0	0.0	29.6	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	175	140	0	0	325	577	0
V/C Ratio (X)	0.00	0.19	0.84	0.00	0.00	0.85	0.93	0.00
Avail Cap (c_a), veh/h	0	175	226	0	0	325	591	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.98	0.16	0.00
Uniform Delay (d1), s/veh	0.0	35.0	57.3	0.0	0.0	38.1	45.2	0.0
Incr Delay (d2), s/veh	0.0	2.4	14.1	0.0	0.0	22.9	5.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	37.4	71.4	0.0	0.0	61.0	50.5	0.0
1st-Term Q (Q1), veh/ln	0.0	0.7	3.6	0.0	0.0	7.4	7.2	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.6	0.0	0.0	2.1	0.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.8	4.2	0.0	0.0	9.5	7.6	0.0
%ile Storage Ratio (RQ%)	0.00	0.31	0.76	0.00	0.00	2.40	0.75	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	60	0	571	0	193	0	857
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	2.6	0.0	0.0	0.0	9.5	0.0	2.7
Cycle Q Clear Time (g_c), s	0.0	2.6	0.0	0.0	0.0	9.5	0.0	2.7
Lane Grp Cap (c), veh/h	0	419	0	1043	0	441	0	887
V/C Ratio (X)	0.00	0.14	0.00	0.55	0.00	0.44	0.00	0.97
Avail Cap (c_a), veh/h	0	419	0	1043	0	441	0	887
Upstream Filter (I)	0.00	1.00	0.00	0.16	0.00	0.98	0.00	1.00
Uniform Delay (d1), s/veh	0.0	28.5	0.0	0.0	0.0	30.3	0.0	0.1
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.1	0.0	3.1	0.0	22.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	29.2	0.0	0.1	0.0	33.4	0.0	22.2
1st-Term Q (Q1), veh/ln	0.0	1.1	0.0	0.0	0.0	3.7	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.4	0.0	5.5

HCM 6th Signalized Intersection Capacity Analysis

2: Tapo St & E Los Angeles Ave

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.2	0.0	0.0	0.0	4.1	0.0	5.5
%ile Storage Ratio (RQ%)	0.00	0.13	0.00	0.00	0.00	1.06	0.00	0.35
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	60	0	584	0	524	0	879
Grp Sat Flow (s), veh/h/ln	0	1603	0	1812	0	1585	0	1755
Q Serve Time (g_s), s	0.0	3.0	0.0	0.0	0.0	32.6	0.0	68.9
Cycle Q Clear Time (g_c), s	0.0	3.0	0.0	0.0	0.0	32.6	0.0	68.9
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	23.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.93	0.00	0.18	0.00	1.00	0.00	0.36
Lane Grp Cap (c), veh/h	0	378	0	1064	0	639	0	876
V/C Ratio (X)	0.00	0.16	0.00	0.55	0.00	0.82	0.00	1.00
Avail Cap (c_a), veh/h	0	378	0	1064	0	639	0	876
Upstream Filter (I)	0.00	1.00	0.00	0.16	0.00	0.98	0.00	1.00
Uniform Delay (d1), s/veh	0.0	28.6	0.0	0.0	0.0	36.7	0.0	0.1
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.1	0.0	11.1	0.0	31.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	29.5	0.0	0.1	0.0	47.9	0.0	31.3
1st-Term Q (Q1), veh/ln	0.0	1.1	0.0	0.0	0.0	15.1	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	2.0	0.0	7.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.2	0.0	0.0	0.0	17.1	0.0	7.6
%ile Storage Ratio (RQ%)	0.00	0.13	0.00	0.00	0.00	4.34	0.00	0.49
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Intersection Summary

HCM 6th Ctrl Delay	28.8
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

03/08/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (veh/h)	0	1208	0	0	1763	0	0	0	0	0	0	0
Future Volume (veh/h)	0	1208	0	0	1763	0	0	0	0	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	1357	0	0	1981	0	0	0	0	0	0	0
Peak Hour Factor	0.92	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	2177	0	0	2177	0	0	514	0	0	514	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
Prop Arrive On Green	0.00	0.61	0.00	0.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	11.1	0.0	0.0	20.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ln Grp LOS	A	B	A	A	C	A	A	A	A	A	A	A
Approach Vol, veh/h		1357			1981			0			0	
Approach Delay, s/veh		11.1			20.7			0.0			0.0	
Approach LOS		B			C							
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			53.5		26.5		53.5		26.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			49.0		22.0		49.0		22.0			
Max Allow Headway (MAH), s			4.9		0.0		4.9		0.0			
Max Q Clear (g_c+I1), s			21.2		0.0		41.0		0.0			
Green Ext Time (g_e), s			11.0		0.0		6.7		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3741		1870		3741		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

03/08/2021

Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	49.0	0.0	22.0	0.0	49.0	0.0	22.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	1357	0	0	0	1981	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	19.2	0.0	0.0	0.0	39.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	19.2	0.0	0.0	0.0	39.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	2177	0	514	0	2177	0	514
V/C Ratio (X)	0.00	0.62	0.00	0.00	0.00	0.91	0.00	0.00
Avail Cap (c_a), veh/h	0	2177	0	514	0	2177	0	514
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	9.7	0.0	0.0	0.0	13.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.4	0.0	0.0	0.0	7.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.1	0.0	0.0	0.0	20.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	5.5	0.0	0.0	0.0	11.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	2.2	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.0	0.0	0.0	0.0	13.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.53	0.00	0.00	0.00	3.88	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data













Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	16.8
HCM 6th LOS	B

HCM 6th Signalized Intersection Capacity Analysis
4: Hlidden Ranch Dr

03/08/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	370	0	0	126	0
Future Volume (veh/h)	0	0	0	0	0	0	0	370	0	0	126	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	430	0	0	147	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	850	0	0	850	0	0	714	0	0	714	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
Prop Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.38	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.4	0.0	0.0	12.1	0.0
Ln Grp LOS	A	A	A	A	A	A	A	B	A	A	B	A
Approach Vol, veh/h		0			0			430			147	
Approach Delay, s/veh		0.0			0.0			17.4			12.1	
Approach LOS								B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			25.5		29.5		25.5		29.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			21.0		25.0		21.0		25.0			
Max Allow Headway (MAH), s			5.1		0.0		5.1		0.0			
Max Q Clear (g_c+I1), s			12.2		0.0		4.9		0.0			
Green Ext Time (g_e), s			1.7		0.0		0.6		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1870		1870		1870		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis

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Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	21.0	0.0	25.0	0.0	21.0	0.0	25.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	430	0	0	0	147	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	1870	0	1870	0	1870
Q Serve Time (g_s), s	0.0	10.2	0.0	0.0	0.0	2.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	10.2	0.0	0.0	0.0	2.9	0.0	0.0
Lane Grp Cap (c), veh/h	0	714	0	850	0	714	0	850
V/C Ratio (X)	0.00	0.60	0.00	0.00	0.00	0.21	0.00	0.00
Avail Cap (c_a), veh/h	0	714	0	850	0	714	0	850
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	13.6	0.0	0.0	0.0	11.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	3.7	0.0	0.0	0.0	0.7	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
Control Delay (d), s/veh	0.0	17.4	0.0	0.0	0.0	12.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.5	0.0	0.0	0.0	1.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.0	0.0	0.1	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.3	0.0	0.0	0.0	1.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	3.10	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	16.0
HCM 6th LOS	B

HCM 6th Signalized Intersection Capacity Analysis
5: Sequoia Ave & Cochran St

07/23/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	283	846	70	129	1156	185	133	653	72	154	465	395
Future Volume (veh/h)	283	846	70	129	1156	185	133	653	72	154	465	395
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	393	1175	69	179	1606	188	185	907	72	214	646	271
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	268	1096	489	268	1096	489	234	1278	101	260	935	392
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.17	0.62	0.62	0.17	0.62	0.62	0.77	0.77	0.77	0.77	0.77	0.38
Unsig. Movement Delay												
Ln Grp Delay, s/veh	245.7	60.3	8.3	20.0	226.1	9.1	38.1	11.5	11.3	29.9	8.7	15.1
Ln Grp LOS	F	F	A	B	F	A	D	B	B	C	A	B
Approach Vol, veh/h		1637			1973			1164			1131	
Approach Delay, s/veh		102.6			186.7			15.6			15.2	
Approach LOS		F			F			B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	1.1	3.0		6.0	1.1	3.0			
Phs Duration (G+Y+Rc), s			27.5	9.5	23.0		27.5	9.5	23.0			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			23.0	5.0	18.5		23.0	5.0	18.5			
Max Allow Headway (MAH), s			5.2	3.7	4.9		5.4	3.7	4.8			
Max Q Clear (g_c+I1), s			25.0	6.2	20.5		25.0	7.0	20.5			
Green Ext Time (g_e), s			0.0	0.0	0.0		0.0	0.0	0.0			
Prob of Phs Call (p_c)			1.00	0.95	1.00		1.00	1.00	1.00			
Prob of Max Out (p_x)			0.00	1.00	1.00		0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			609	1781			575	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3335		3554		2440		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			265		1585		1023		1585			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

HCM 6th Signalized Intersection Capacity Analysis

5: Sequoia Ave & Cochran St

07/23/2020

Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	185	179	0	0	214	393	0
Grp Sat Flow (s), veh/h/ln	0	609	1781	0	0	575	1781	0
Q Serve Time (g_s), s	0.0	11.3	4.2	0.0	0.0	14.7	5.0	0.0
Cycle Q Clear Time (g_c), s	0.0	23.0	4.2	0.0	0.0	23.0	5.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	609	447	0	0	575	263	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	23.0	18.5	0.0	0.0	23.0	18.5	0.0
Perm LT Serve Time (g_u), s	0.0	11.3	0.0	0.0	0.0	14.7	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	11.3	0.0	0.0	0.0	14.7	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	234	268	0	0	260	268	0
V/C Ratio (X)	0.00	0.79	0.67	0.00	0.00	0.82	1.46	0.00
Avail Cap (c_a), veh/h	0	234	268	0	0	260	268	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.61	1.00	0.00
Uniform Delay (d1), s/veh	0.0	15.0	13.8	0.0	0.0	13.7	17.6	0.0
Incr Delay (d2), s/veh	0.0	23.1	6.2	0.0	0.0	16.2	228.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	38.1	20.0	0.0	0.0	29.9	245.7	0.0
1st-Term Q (Q1), veh/ln	0.0	1.6	1.2	0.0	0.0	1.2	1.9	0.0
2nd-Term Q (Q2), veh/ln	0.0	1.5	0.5	0.0	0.0	1.2	17.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.1	1.6	0.0	0.0	2.4	18.9	0.0
%ile Storage Ratio (RQ%)	0.00	0.78	0.28	0.00	0.00	0.40	2.82	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	31.1	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	2
Grp Vol (v), veh/h	0	483	0	1175	0	470	0	1606
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	8.3	0.0	18.5	0.0	7.9	0.0	18.5
Cycle Q Clear Time (g_c), s	0.0	8.3	0.0	18.5	0.0	7.9	0.0	18.5
Lane Grp Cap (c), veh/h	0	681	0	1096	0	681	0	1096
V/C Ratio (X)	0.00	0.71	0.00	1.07	0.00	0.69	0.00	1.47
Avail Cap (c_a), veh/h	0	681	0	1096	0	681	0	1096
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.61	0.00	1.00
Uniform Delay (d1), s/veh	0.0	5.3	0.0	11.5	0.0	5.2	0.0	11.5
Incr Delay (d2), s/veh	0.0	6.2	0.0	48.8	0.0	3.5	0.0	214.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.5	0.0	60.3	0.0	8.7	0.0	226.1
1st-Term Q (Q1), veh/ln	0.0	1.4	0.0	2.9	0.0	1.3	0.0	2.9
2nd-Term Q (Q2), veh/ln	0.0	1.2	0.0	7.4	0.0	0.7	0.0	32.7

HCM 6th Signalized Intersection Capacity Analysis

5: Sequoia Ave & Cochran St

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.5	0.0	10.3	0.0	2.0	0.0	35.6
%ile Storage Ratio (RQ%)	0.00	0.27	0.00	0.18	0.00	0.04	0.00	0.83
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	19.8	0.0	0.0	0.0	127.6
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.4

Right Lane Group Data

























Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		R		T+R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	496	0	69	0	447	0	188
Grp Sat Flow (s), veh/h/ln	0	1823	0	1585	0	1686	0	1585
Q Serve Time (g_s), s	0.0	8.3	0.0	1.1	0.0	11.7	0.0	3.6
Cycle Q Clear Time (g_c), s	0.0	8.3	0.0	1.1	0.0	11.7	0.0	3.6
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.15	0.00	1.00	0.00	0.61	0.00	1.00
Lane Grp Cap (c), veh/h	0	699	0	489	0	646	0	489
V/C Ratio (X)	0.00	0.71	0.00	0.14	0.00	0.69	0.00	0.38
Avail Cap (c_a), veh/h	0	699	0	489	0	646	0	489
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.61	0.00	1.00
Uniform Delay (d1), s/veh	0.0	5.3	0.0	8.2	0.0	11.4	0.0	8.6
Incr Delay (d2), s/veh	0.0	6.0	0.0	0.1	0.0	3.7	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
Control Delay (d), s/veh	0.0	11.3	0.0	8.3	0.0	15.1	0.0	9.1
1st-Term Q (Q1), veh/ln	0.0	1.4	0.0	0.3	0.0	2.8	0.0	0.9
2nd-Term Q (Q2), veh/ln	0.0	1.2	0.0	0.0	0.0	0.7	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.6	0.0	0.3	0.0	3.5	0.0	1.0
%ile Storage Ratio (RQ%)	0.00	0.27	0.00	0.06	0.00	0.08	0.00	0.16
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	96.8
HCM 6th LOS	F

HCM 6th Signalized Intersection Capacity Analysis
6: Tapo Canyon Rd & Cochran St

07/23/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	655	616	121	157	625	468	82	820	98	334	1102	509
Future Volume (veh/h)	655	616	121	157	625	468	82	820	98	334	1102	509
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	780	733	144	187	744	438	98	976	57	398	1312	368
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	543	1320	589	375	727	324	150	953	425	330	1138	933
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.54	0.74	0.74	0.20	0.41	0.41	0.09	0.54	0.54	0.19	0.64	0.32
Unsig. Movement Delay												
Ln Grp Delay, s/veh	223.6	10.7	9.5	26.7	58.7	197.8	58.3	60.9	19.8	162.5	98.9	13.4
Ln Grp LOS	F	B	A	C	F	F	E	F	B	F	F	B
Approach Vol, veh/h		1657			1369			1131			2078	
Approach Delay, s/veh		110.8			98.8			58.6			95.9	
Approach LOS		F			F			E			F	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		2.0	3.0	1.1	3.0	2.0	3.0	1.1	3.0			
Phs Duration (G+Y+Rc), s		15.0	34.0	15.6	45.4	9.3	39.7	34.0	27.0			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		10.5	29.5	14.6	37.4	5.0	35.0	29.5	22.5			
Max Allow Headway (MAH), s		3.8	5.2	3.8	5.1	3.8	5.0	3.8	4.8			
Max Q Clear (g_c+I1), s		12.5	31.5	11.0	11.9	5.0	37.2	31.5	24.5			
Green Ext Time (g_e), s		0.0	0.0	0.2	6.1	0.0	0.0	0.0	0.0			
Prob of Phs Call (p_c)		1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.04	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		3456		1781		3456		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Prot)		L (Pr/Pm)		L (Prot)		L (Pr/Pm)				

HCM 6th Signalized Intersection Capacity Analysis
6: Tapo Canyon Rd & Cochran St

07/23/2020

Lanes in Grp	2	0	1	0	2	0	1	0
Grp Vol (v), veh/h	398	0	187	0	98	0	780	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	1781	0
Q Serve Time (g_s), s	10.5	0.0	9.0	0.0	3.0	0.0	29.5	0.0
Cycle Q Clear Time (g_c), s	10.5	0.0	9.0	0.0	3.0	0.0	29.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	632	0	0	0	474	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	22.5	0.0	0.0	0.0	24.5	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	22.5	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	330	0	375	0	150	0	543	0
V/C Ratio (X)	1.21	0.00	0.50	0.00	0.65	0.00	1.44	0.00
Avail Cap (c_a), veh/h	330	0	431	0	157	0	543	0
Upstream Filter (I)	1.00	0.00	0.36	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	44.5	0.0	26.3	0.0	49.4	0.0	17.0	0.0
Incr Delay (d2), s/veh	118.0	0.0	0.4	0.0	8.8	0.0	206.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	162.5	0.0	26.7	0.0	58.3	0.0	223.6	0.0
1st-Term Q (Q1), veh/ln	4.0	0.0	3.3	0.0	1.3	0.0	6.5	0.0
2nd-Term Q (Q2), veh/ln	5.4	0.0	0.0	0.0	0.2	0.0	31.2	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	9.4	0.0	3.4	0.0	1.5	0.0	37.7	0.0
%ile Storage Ratio (RQ%)	2.39	0.00	0.29	0.00	0.23	0.00	3.19	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	17.0	0.0	0.0	0.0	0.0	0.0	59.2	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.3	0.0	0.0	0.0	0.0	0.0	0.4	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	2	0	2
Grp Vol (v), veh/h	0	976	0	733	0	1312	0	744
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	29.5	0.0	9.9	0.0	35.2	0.0	22.5
Cycle Q Clear Time (g_c), s	0.0	29.5	0.0	9.9	0.0	35.2	0.0	22.5
Lane Grp Cap (c), veh/h	0	953	0	1320	0	1138	0	727
V/C Ratio (X)	0.00	1.02	0.00	0.56	0.00	1.15	0.00	1.02
Avail Cap (c_a), veh/h	0	953	0	1320	0	1138	0	727
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.36
Uniform Delay (d1), s/veh	0.0	25.5	0.0	10.2	0.0	19.8	0.0	32.5
Incr Delay (d2), s/veh	0.0	35.4	0.0	0.5	0.0	79.1	0.0	26.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	60.9	0.0	10.7	0.0	98.9	0.0	58.7
1st-Term Q (Q1), veh/ln	0.0	8.6	0.0	2.7	0.0	8.2	0.0	7.6
2nd-Term Q (Q2), veh/ln	0.0	4.7	0.0	0.1	0.0	12.5	0.0	2.6

HCM 6th Signalized Intersection Capacity Analysis
 6: Tapo Canyon Rd & Cochran St

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	13.3	0.0	2.8	0.0	20.7	0.0	10.2
%ile Storage Ratio (RQ%)	0.00	0.84	0.00	0.10	0.00	2.46	0.00	0.25
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	5.7	0.0	0.0	0.0	43.5	0.0	4.3
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.3

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	57	0	144	0	368	0	438
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	2.0	0.0	3.1	0.0	13.7	0.0	22.5
Cycle Q Clear Time (g_c), s	0.0	2.0	0.0	3.1	0.0	13.7	0.0	22.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	29.5	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	425	0	589	0	933	0	324
V/C Ratio (X)	0.00	0.13	0.00	0.24	0.00	0.39	0.00	1.35
Avail Cap (c_a), veh/h	0	425	0	589	0	933	0	324
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.36
Uniform Delay (d1), s/veh	0.0	19.1	0.0	9.3	0.0	12.1	0.0	32.5
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.2	0.0	1.3	0.0	165.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.8	0.0	9.5	0.0	13.4	0.0	197.8
1st-Term Q (Q1), veh/ln	0.0	0.7	0.0	1.0	0.0	4.6	0.0	6.7
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.3	0.0	14.9
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.8	0.0	1.0	0.0	5.0	0.0	21.6
%ile Storage Ratio (RQ%)	0.00	0.13	0.00	0.37	0.00	0.63	0.00	0.54
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.4
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Intersection Summary

HCM 6th Ctrl Delay	93.7
HCM 6th LOS	F

HCM 6th Signalized Intersection Capacity Analysis
7: Tapo St & Cochran St

07/23/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	526	183	231	470	195	133	386	115	280	553	247
Future Volume (veh/h)	314	526	183	231	470	195	133	386	115	280	553	247
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	374	626	158	275	560	172	158	460	77	333	658	175
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	390	737	186	356	617	189	311	782	130	445	856	228
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Prop Arrive On Green	0.30	0.52	0.52	0.24	0.46	0.46	0.14	0.51	0.51	0.25	0.62	0.62
Unsig. Movement Delay												
Ln Grp Delay, s/veh	43.5	24.7	25.0	28.2	41.6	42.9	19.3	20.9	21.1	24.0	22.4	22.6
Ln Grp LOS	D	C	C	C	D	D	B	C	C	C	C	C
Approach Vol, veh/h		1158			1007			695			1166	
Approach Delay, s/veh		30.9			38.4			20.6			22.9	
Approach LOS		C			D			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		13.7	23.7	13.4	24.2	9.8	27.6	15.8	21.8			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		9.2	18.5	8.9	20.4	5.3	22.4	11.3	18.0			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	5.3	3.8	5.3			
Max Q Clear (g_c+I1), s		11.2	10.0	10.9	16.4	7.0	15.0	13.3	16.6			
Green Ext Time (g_e), s		0.0	2.1	0.0	1.8	0.0	3.1	0.0	0.7			
Prob of Phs Call (p_c)		1.00	1.00	1.00	1.00	0.96	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3048		2811		2777		2679			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			507		708		738		820			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)				

HCM 6th Signalized Intersection Capacity Analysis

7: Tapo St & Cochran St

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	333	0	275	0	158	0	374	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	9.2	0.0	8.9	0.0	5.0	0.0	11.3	0.0
Cycle Q Clear Time (g_c), s	9.2	0.0	8.9	0.0	5.0	0.0	11.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	868	0	690	0	659	0	724	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	20.6	0.0	17.3	0.0	19.2	0.0	17.3	0.0
Perm LT Serve Time (g_u), s	11.3	0.0	5.3	0.0	10.2	0.0	2.7	0.0
Perm LT Q Serve Time (g_ps), s	9.2	0.0	5.3	0.0	2.6	0.0	2.7	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	445	0	356	0	311	0	390	0
V/C Ratio (X)	0.75	0.00	0.77	0.00	0.51	0.00	0.96	0.00
Avail Cap (c_a), veh/h	445	0	356	0	311	0	390	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.59	0.00
Uniform Delay (d1), s/veh	17.1	0.0	18.2	0.0	17.9	0.0	18.4	0.0
Incr Delay (d2), s/veh	6.9	0.0	10.0	0.0	1.4	0.0	25.1	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	24.0	0.0	28.2	0.0	19.3	0.0	43.5	0.0
1st-Term Q (Q1), veh/ln	3.3	0.0	2.9	0.0	1.8	0.0	3.7	0.0
2nd-Term Q (Q2), veh/ln	0.8	0.0	1.0	0.0	0.1	0.0	2.7	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	4.1	0.0	3.9	0.0	1.9	0.0	6.4	0.0
%ile Storage Ratio (RQ%)	0.87	0.00	0.83	0.00	0.34	0.00	1.36	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	267	0	395	0	421	0	371
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	7.9	0.0	14.3	0.0	12.9	0.0	14.5
Cycle Q Clear Time (g_c), s	0.0	7.9	0.0	14.3	0.0	12.9	0.0	14.5
Lane Grp Cap (c), veh/h	0	456	0	466	0	548	0	409
V/C Ratio (X)	0.00	0.59	0.00	0.85	0.00	0.77	0.00	0.91
Avail Cap (c_a), veh/h	0	456	0	483	0	548	0	426
Upstream Filter (I)	0.00	1.00	0.00	0.59	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.5	0.0	16.5	0.0	12.4	0.0	19.5
Incr Delay (d2), s/veh	0.0	5.4	0.0	8.1	0.0	9.9	0.0	22.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.9	0.0	24.7	0.0	22.4	0.0	41.6
1st-Term Q (Q1), veh/ln	0.0	2.4	0.0	3.7	0.0	3.1	0.0	4.0
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	1.1	0.0	1.5	0.0	2.5

HCM 6th Signalized Intersection Capacity Analysis
7: Tapo St & Cochran St

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.1	0.0	4.8	0.0	4.6	0.0	6.5
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.12	0.00	0.35	0.00	0.10
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	270	0	389	0	412	0	361
Grp Sat Flow (s), veh/h/ln	0	1779	0	1743	0	1738	0	1723
Q Serve Time (g_s), s	0.0	8.0	0.0	14.4	0.0	13.0	0.0	14.6
Cycle Q Clear Time (g_c), s	0.0	8.0	0.0	14.4	0.0	13.0	0.0	14.6
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.29	0.00	0.41	0.00	0.42	0.00	0.48
Lane Grp Cap (c), veh/h	0	456	0	457	0	536	0	397
V/C Ratio (X)	0.00	0.59	0.00	0.85	0.00	0.77	0.00	0.91
Avail Cap (c_a), veh/h	0	456	0	474	0	536	0	413
Upstream Filter (I)	0.00	1.00	0.00	0.59	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.5	0.0	16.6	0.0	12.4	0.0	19.5
Incr Delay (d2), s/veh	0.0	5.6	0.0	8.4	0.0	10.2	0.0	23.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	21.1	0.0	25.0	0.0	22.6	0.0	42.9
1st-Term Q (Q1), veh/ln	0.0	2.5	0.0	3.7	0.0	3.0	0.0	3.9
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	1.1	0.0	1.5	0.0	2.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.2	0.0	4.7	0.0	4.5	0.0	6.5
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.12	0.00	0.35	0.00	0.10
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
8: Sequoia Ave & Cochran St

07/23/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	658	157	254	868	131	277	414	419	169	450	79
Future Volume (veh/h)	59	658	157	254	868	131	277	414	419	169	450	79
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	84	940	153	363	1240	116	396	591	456	241	643	113
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	115	776	126	261	1103	103	396	1891	843	338	1608	282
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.07	0.51	0.51	0.24	0.67	0.67	1.00	1.00	1.00	1.00	1.00	0.53
Unsig. Movement Delay												
Ln Grp Delay, s/veh	60.9	148.6	148.9	231.8	98.1	99.7	35.4	0.2	0.9	12.1	1.3	6.3
Ln Grp LOS	E	F	F	F	F	F	D	A	A	B	A	A
Approach Vol, veh/h		1177			1719			1443			997	
Approach Delay, s/veh		142.5			127.0			10.1			5.8	
Approach LOS		F			F			B			A	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			5.0	1.1	4.0		6.0	1.1	4.0			
Phs Duration (G+Y+Rc), s			79.0	21.0	40.0		79.0	9.5	51.5			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			74.5	16.5	35.5		74.5	5.0	47.0			
Max Allow Headway (MAH), s			5.1	3.8	5.3		5.9	3.8	5.3			
Max Q Clear (g_c+I1), s			76.5	18.5	37.5		8.4	7.0	49.0			
Green Ext Time (g_e), s			0.0	0.0	0.0		10.5	0.0	0.0			
Prob of Phs Call (p_c)			1.00	1.00	1.00		1.00	0.96	1.00			
Prob of Max Out (p_x)			0.00	1.00	1.00		0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			708	1781			539	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3060		3022		3285			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		498		530		307			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

HCM 6th Signalized Intersection Capacity Analysis

8: Sequoia Ave & Cochran St

07/23/2020

Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	396	363	0	0	241	84	0
Grp Sat Flow (s), veh/h/ln	0	708	1781	0	0	539	1781	0
Q Serve Time (g_s), s	0.0	68.1	16.5	0.0	0.0	0.0	5.0	0.0
Cycle Q Clear Time (g_c), s	0.0	74.5	16.5	0.0	0.0	0.0	5.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	708	516	0	0	539	402	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	74.5	37.5	0.0	0.0	74.5	35.5	0.0
Perm LT Serve Time (g_u), s	0.0	68.1	0.0	0.0	0.0	74.5	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	68.1	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	396	261	0	0	338	115	0
V/C Ratio (X)	0.00	1.00	1.39	0.00	0.00	0.71	0.73	0.00
Avail Cap (c_a), veh/h	0	396	261	0	0	338	115	0
Upstream Filter (I)	0.00	0.38	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	7.6	35.0	0.0	0.0	0.0	40.1	0.0
Incr Delay (d2), s/veh	0.0	27.8	196.8	0.0	0.0	12.1	20.8	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	35.4	231.8	0.0	0.0	12.1	60.9	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	5.5	0.0	0.0	0.0	2.1	0.0
2nd-Term Q (Q2), veh/ln	0.0	3.1	14.3	0.0	0.0	1.1	0.7	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.1	19.8	0.0	0.0	1.1	2.8	0.0
%ile Storage Ratio (RQ%)	0.00	0.52	3.35	0.00	0.00	0.18	0.47	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	25.4	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	591	0	546	0	378	0	669
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	35.5	0.0	0.0	0.0	47.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	35.5	0.0	0.0	0.0	47.0
Lane Grp Cap (c), veh/h	0	1891	0	451	0	946	0	597
V/C Ratio (X)	0.00	0.31	0.00	1.21	0.00	0.40	0.00	1.12
Avail Cap (c_a), veh/h	0	1891	0	451	0	946	0	597
Upstream Filter (I)	0.00	0.38	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	34.5	0.0	0.0	0.0	23.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	114.1	0.0	1.3	0.0	75.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.2	0.0	148.6	0.0	1.3	0.0	98.1
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	12.2	0.0	0.0	0.0	12.7
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	14.3	0.0	0.3	0.0	12.4

HCM 6th Signalized Intersection Capacity Analysis
8: Sequoia Ave & Cochran St

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	26.5	0.0	0.3	0.0	25.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.77	0.00	0.04	0.00	0.56
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	23.8	0.0	0.0	0.0	18.2
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3

Right Lane Group Data
























Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	456	0	547	0	378	0	687
Grp Sat Flow (s), veh/h/ln	0	1585	0	1781	0	1775	0	1815
Q Serve Time (g_s), s	0.0	0.0	0.0	35.5	0.0	6.4	0.0	47.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	35.5	0.0	6.4	0.0	47.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.28	0.00	0.30	0.00	0.17
Lane Grp Cap (c), veh/h	0	843	0	452	0	945	0	609
V/C Ratio (X)	0.00	0.54	0.00	1.21	0.00	0.40	0.00	1.13
Avail Cap (c_a), veh/h	0	843	0	452	0	945	0	609
Upstream Filter (I)	0.00	0.38	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	34.5	0.0	5.0	0.0	23.0
Incr Delay (d2), s/veh	0.0	0.9	0.0	114.4	0.0	1.3	0.0	76.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.9	0.0	148.9	0.0	6.3	0.0	99.7
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	12.2	0.0	1.8	0.0	13.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	14.4	0.0	0.3	0.0	13.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	26.6	0.0	2.2	0.0	25.9
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.77	0.00	0.27	0.00	0.58
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	23.9	0.0	0.0	0.0	19.4
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3

Intersection Summary

HCM 6th Ctrl Delay	76.1
HCM 6th LOS	E

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

07/23/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	416	1238	11	280	1048	240	48	668	609	243	324	316
Future Volume (veh/h)	416	1238	11	280	1048	240	48	668	609	243	324	316
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	438	1303	12	295	1103	253	51	703	641	256	341	333
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	419	1312	12	299	1053	641	284	825	368	261	1098	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.24	0.36	0.36	0.17	0.30	0.30	0.03	0.23	0.23	0.11	0.31	0.31
Unsig. Movement Delay												
Ln Grp Delay, s/veh	110.2	78.0	77.2	84.6	79.3	29.7	39.4	62.3	398.8	88.0	37.7	49.6
Ln Grp LOS	F	E	E	F	F	C	D	E	F	F	D	D
Approach Vol, veh/h		1753			1651			1395			930	
Approach Delay, s/veh		85.7			72.6			216.1			55.8	
Approach LOS		F			E			F			E	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	3.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		19.6	37.0	28.0	55.4	8.8	47.8	37.4	46.0			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		15.1	32.5	23.5	50.9	5.1	42.5	32.9	41.5			
Max Allow Headway (MAH), s		3.7	4.4	3.7	4.9	3.7	4.4	3.7	4.7			
Max Q Clear (g_c+I1), s		17.1	34.5	25.1	52.4	5.0	27.7	34.9	43.5			
Green Ext Time (g_e), s		0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0			
Prob of Phs Call (p_c)		1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3608		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		33		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

07/23/2020

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	256	0	295	0	51	0	438	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	15.1	0.0	23.1	0.0	3.0	0.0	32.9	0.0
Cycle Q Clear Time (g_c), s	15.1	0.0	23.1	0.0	3.0	0.0	32.9	0.0
Perm LT Sat Flow (s_l), veh/h/ln	406	0	0	0	764	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	34.5	0.0	0.0	0.0	32.5	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	6.0	0.0	0.0	0.0	32.5	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	261	0	299	0	284	0	419	0
V/C Ratio (X)	0.98	0.00	0.99	0.00	0.18	0.00	1.05	0.00
Avail Cap (c_a), veh/h	261	0	299	0	294	0	419	0
Upstream Filter (I)	0.98	0.00	0.33	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	38.2	0.0	58.1	0.0	39.1	0.0	53.6	0.0
Incr Delay (d2), s/veh	49.7	0.0	26.5	0.0	0.3	0.0	56.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	88.0	0.0	84.6	0.0	39.4	0.0	110.2	0.0
1st-Term Q (Q1), veh/ln	6.4	0.0	10.2	0.0	1.3	0.0	14.3	0.0
2nd-Term Q (Q2), veh/ln	3.6	0.0	2.2	0.0	0.0	0.0	6.6	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	10.0	0.0	12.4	0.0	1.3	0.0	20.9	0.0
%ile Storage Ratio (RQ%)	0.75	0.00	1.16	0.00	0.14	0.00	1.83	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	703	0	642	0	341	0	1103
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	26.5	0.0	50.4	0.0	10.3	0.0	41.5
Cycle Q Clear Time (g_c), s	0.0	26.5	0.0	50.4	0.0	10.3	0.0	41.5
Lane Grp Cap (c), veh/h	0	825	0	646	0	1098	0	1053
V/C Ratio (X)	0.00	0.85	0.00	0.99	0.00	0.31	0.00	1.05
Avail Cap (c_a), veh/h	0	825	0	646	0	1098	0	1053
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.98	0.00	0.33
Uniform Delay (d1), s/veh	0.0	51.5	0.0	44.4	0.0	37.0	0.0	49.3
Incr Delay (d2), s/veh	0.0	10.8	0.0	33.6	0.0	0.7	0.0	30.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	62.3	0.0	78.0	0.0	37.7	0.0	79.3
1st-Term Q (Q1), veh/ln	0.0	11.5	0.0	21.3	0.0	4.4	0.0	17.8
2nd-Term Q (Q2), veh/ln	0.0	1.2	0.0	6.0	0.0	0.1	0.0	4.4

HCM 6th Signalized Intersection Capacity Analysis

1: Tapo Canyon Rd & E Los Angeles Ave

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	12.8	0.0	27.3	0.0	4.5	0.0	22.2
%ile Storage Ratio (RQ%)	0.00	1.22	0.00	0.88	0.00	1.51	0.00	0.58
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.4
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Right Lane Group Data






















Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	641	0	673	0	333	0	253
Grp Sat Flow (s), veh/h/ln	0	1585	0	1864	0	1585	0	1585
Q Serve Time (g_s), s	0.0	32.5	0.0	50.4	0.0	25.7	0.0	15.8
Cycle Q Clear Time (g_c), s	0.0	32.5	0.0	50.4	0.0	25.7	0.0	15.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.1
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.02	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	368	0	678	0	490	0	641
V/C Ratio (X)	0.00	1.74	0.00	0.99	0.00	0.68	0.00	0.39
Avail Cap (c_a), veh/h	0	368	0	678	0	490	0	641
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.98	0.00	0.33
Uniform Delay (d1), s/veh	0.0	53.8	0.0	44.4	0.0	42.3	0.0	29.6
Incr Delay (d2), s/veh	0.0	345.0	0.0	32.9	0.0	7.3	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	398.8	0.0	77.2	0.0	49.6	0.0	29.7
1st-Term Q (Q1), veh/ln	0.0	12.6	0.0	22.3	0.0	9.8	0.0	5.9
2nd-Term Q (Q2), veh/ln	0.0	35.3	0.0	6.2	0.0	1.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	47.9	0.0	28.5	0.0	10.8	0.0	5.9
%ile Storage Ratio (RQ%)	0.00	8.11	0.00	0.92	0.00	0.81	0.00	0.94
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	68.3	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	108.8
HCM 6th LOS	F

HCM 6th Signalized Intersection Capacity Analysis
2: Tapo St & E Los Angeles Ave

07/23/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	598	1401	70	56	934	323	92	123	120	296	68	508
Future Volume (veh/h)	598	1401	70	56	934	323	92	123	120	296	68	508
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	643	1506	75	60	1004	347	99	132	129	318	73	546
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	667	1788	89	77	958	328	302	538	480	368	567	786
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.39	1.00	1.00	0.09	0.74	0.74	0.61	0.61	0.61	0.61	0.61	0.30
Unsig. Movement Delay												
Ln Grp Delay, s/veh	35.1	0.7	0.7	64.3	60.0	64.9	18.8	15.5	15.9	44.8	14.5	24.3
Ln Grp LOS	D	A	A	E	F	F	B	B	B	D	B	C
Approach Vol, veh/h		2224			1411			360			937	
Approach Delay, s/veh		10.6			62.5			16.5			30.5	
Approach LOS		B			E			B			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	2.0	4.0		5.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			34.8	8.8	56.4		34.8	23.8	41.4			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			30.3	6.3	49.9		30.3	19.3	36.9			
Max Allow Headway (MAH), s			5.3	3.7	4.9		4.2	3.7	5.0			
Max Q Clear (g_c+I1), s			10.6	5.3	2.0		32.3	20.2	38.9			
Green Ext Time (g_e), s			2.0	0.0	15.4		0.0	0.0	0.0			
Prob of Phs Call (p_c)			1.00	0.81	1.00		1.00	1.00	1.00			
Prob of Max Out (p_x)			0.00	1.00	0.12		0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			804	1781			1118	3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1777		3445		1870		2597			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		171		1585		890			
Left Lane Group Data												
Assigned Mvmt		0	5	3	0	0	1	7	0			
Lane Assignment			L	L (Prot)			L	L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis

2: Tapo St & E Los Angeles Ave

07/23/2020

Lanes in Grp	0	1	1	0	0	1	2	0
Grp Vol (v), veh/h	0	99	60	0	0	318	643	0
Grp Sat Flow (s), veh/h/ln	0	804	1781	0	0	1118	1728	0
Q Serve Time (g_s), s	0.0	7.0	3.3	0.0	0.0	26.5	18.2	0.0
Cycle Q Clear Time (g_c), s	0.0	8.6	3.3	0.0	0.0	30.3	18.2	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	804	0	0	0	1118	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	30.3	0.0	0.0	0.0	30.3	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	28.6	0.0	0.0	0.0	26.5	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	7.0	0.0	0.0	0.0	26.5	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	302	77	0	0	368	667	0
V/C Ratio (X)	0.00	0.33	0.78	0.00	0.00	0.86	0.96	0.00
Avail Cap (c_a), veh/h	0	302	112	0	0	368	667	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.98	0.09	0.00
Uniform Delay (d1), s/veh	0.0	15.9	45.2	0.0	0.0	22.5	30.4	0.0
Incr Delay (d2), s/veh	0.0	2.9	19.1	0.0	0.0	22.3	4.8	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.8	64.3	0.0	0.0	44.8	35.1	0.0
1st-Term Q (Q1), veh/ln	0.0	1.0	1.4	0.0	0.0	4.7	5.4	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.4	0.0	0.0	2.3	0.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.2	1.8	0.0	0.0	7.0	5.8	0.0
%ile Storage Ratio (RQ%)	0.00	0.48	0.32	0.00	0.00	1.78	0.57	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	132	0	774	0	73	0	684
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	3.4	0.0	0.0	0.0	1.7	0.0	36.9
Cycle Q Clear Time (g_c), s	0.0	3.4	0.0	0.0	0.0	1.7	0.0	36.9
Lane Grp Cap (c), veh/h	0	538	0	922	0	567	0	656
V/C Ratio (X)	0.00	0.25	0.00	0.84	0.00	0.13	0.00	1.04
Avail Cap (c_a), veh/h	0	538	0	922	0	567	0	656
Upstream Filter (I)	0.00	1.00	0.00	0.09	0.00	0.98	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.4	0.0	0.0	0.0	14.1	0.0	13.1
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.7	0.0	0.5	0.0	46.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.5	0.0	0.7	0.0	14.5	0.0	60.0
1st-Term Q (Q1), veh/ln	0.0	1.2	0.0	0.0	0.0	0.7	0.0	4.5
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.2	0.0	0.1	0.0	8.5

HCM 6th Signalized Intersection Capacity Analysis 2: Tapo St & E Los Angeles Ave

07/23/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.4	0.0	0.2	0.0	0.7	0.0	13.0
%ile Storage Ratio (RQ%)	0.00	0.15	0.00	0.00	0.00	0.19	0.00	0.83
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	129	0	807	0	546	0	667
Grp Sat Flow (s), veh/h/ln	0	1585	0	1840	0	1585	0	1710
Q Serve Time (g_s), s	0.0	3.8	0.0	0.0	0.0	26.5	0.0	36.9
Cycle Q Clear Time (g_c), s	0.0	3.8	0.0	0.0	0.0	26.5	0.0	36.9
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	19.3	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.09	0.00	1.00	0.00	0.52
Lane Grp Cap (c), veh/h	0	480	0	955	0	786	0	631
V/C Ratio (X)	0.00	0.27	0.00	0.85	0.00	0.69	0.00	1.06
Avail Cap (c_a), veh/h	0	480	0	955	0	786	0	631
Upstream Filter (I)	0.00	1.00	0.00	0.09	0.00	0.98	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.5	0.0	0.0	0.0	19.4	0.0	13.1
Incr Delay (d2), s/veh	0.0	1.4	0.0	0.7	0.0	4.9	0.0	51.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.9	0.0	0.7	0.0	24.3	0.0	64.9
1st-Term Q (Q1), veh/ln	0.0	1.2	0.0	0.0	0.0	8.7	0.0	4.3
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.2	0.0	1.1	0.0	9.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.4	0.0	0.2	0.0	9.8	0.0	13.4
%ile Storage Ratio (RQ%)	0.00	0.15	0.00	0.00	0.00	2.48	0.00	0.86
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Intersection Summary

HCM 6th Ctrl Delay	29.7
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

03/08/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (veh/h)	0	1881	0	0	1284	0	0	0	0	0	0	0
Future Volume (veh/h)	0	1881	0	0	1284	0	0	0	0	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	2023	0	0	1381	0	0	0	0	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	2177	0	0	2177	0	0	514	0	0	514	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
Prop Arrive On Green	0.00	0.61	0.00	0.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	22.5	0.0	0.0	11.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ln Grp LOS	A	C	A	A	B	A	A	A	A	A	A	A
Approach Vol, veh/h		2023			1381			0			0	
Approach Delay, s/veh		22.5			11.2			0.0			0.0	
Approach LOS		C			B							
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			53.5		26.5		53.5		26.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			49.0		22.0		49.0		22.0			
Max Allow Headway (MAH), s			4.9		0.0		4.9		0.0			
Max Q Clear (g_c+I1), s			43.0		0.0		21.7		0.0			
Green Ext Time (g_e), s			5.2		0.0		11.2		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3741		1870		3741		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

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Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	49.0	0.0	22.0	0.0	49.0	0.0	22.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	2023	0	0	0	1381	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	41.0	0.0	0.0	0.0	19.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	41.0	0.0	0.0	0.0	19.7	0.0	0.0
Lane Grp Cap (c), veh/h	0	2177	0	514	0	2177	0	514
V/C Ratio (X)	0.00	0.93	0.00	0.00	0.00	0.63	0.00	0.00
Avail Cap (c_a), veh/h	0	2177	0	514	0	2177	0	514
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	13.9	0.0	0.0	0.0	9.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	8.6	0.0	0.0	0.0	1.4	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
Control Delay (d), s/veh	0.0	22.5	0.0	0.0	0.0	11.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	11.8	0.0	0.0	0.0	5.7	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	2.6	0.0	0.0	0.0	0.4	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	14.4	0.0	0.0	0.0	6.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	3.74	0.00	0.00	0.00	1.23	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	17.9
HCM 6th LOS	B

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	177	0	0	267	0
Future Volume (veh/h)	0	0	0	0	0	0	0	177	0	0	267	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	188	0	0	284	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	823	0	0	823	0	0	711	0	0	711	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
Prop Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.38	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.6	0.0	0.0	13.0	0.0
Ln Grp LOS	A	A	A	A	A	A	A	B	A	A	B	A
Approach Vol, veh/h		0			0			188			284	
Approach Delay, s/veh		0.0			0.0			11.6			13.0	
Approach LOS								B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			23.5		26.5		23.5		26.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			19.0		22.0		19.0		22.0			
Max Allow Headway (MAH), s			5.1		0.0		5.1		0.0			
Max Q Clear (g_c+I1), s			5.5		0.0		7.5		0.0			
Green Ext Time (g_e), s			0.7		0.0		1.2		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1870		1870		1870		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

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Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	19.0	0.0	22.0	0.0	19.0	0.0	22.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	188	0	0	0	284	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	1870	0	1870	0	1870
Q Serve Time (g_s), s	0.0	3.5	0.0	0.0	0.0	5.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.5	0.0	0.0	0.0	5.5	0.0	0.0
Lane Grp Cap (c), veh/h	0	711	0	823	0	711	0	823
V/C Ratio (X)	0.00	0.26	0.00	0.00	0.00	0.40	0.00	0.00
Avail Cap (c_a), veh/h	0	711	0	823	0	711	0	823
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	10.7	0.0	0.0	0.0	11.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.0	0.0	1.7	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
Control Delay (d), s/veh	0.0	11.6	0.0	0.0	0.0	13.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.1	0.0	0.0	0.0	1.8	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.3	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.3	0.0	0.0	0.0	2.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.05	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	12.4
HCM 6th LOS	B

HCM 6th Signalized Intersection Capacity Analysis

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	422	1336	137	183	1016	227	75	458	85	137	401	242
Future Volume (veh/h)	422	1336	137	183	1016	227	75	458	85	137	401	242
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	449	1421	146	195	1081	241	80	487	90	146	427	257
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	446	1650	736	278	1012	224	163	792	146	204	566	337
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.19	0.46	0.46	0.08	0.35	0.35	0.26	0.26	0.26	0.26	0.26	0.26
Unsig. Movement Delay												
Ln Grp Delay, s/veh	63.8	21.6	11.2	24.1	77.5	80.5	43.2	28.5	28.7	47.1	31.8	32.9
Ln Grp LOS	F	C	B	C	F	F	D	C	C	D	C	C
Approach Vol, veh/h		2016			1517			657			830	
Approach Delay, s/veh		30.3			71.9			30.3			34.9	
Approach LOS		C			E			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	1.1	3.0		6.0	1.1	4.0			
Phs Duration (G+Y+Rc), s			23.0	10.0	37.0		23.0	18.0	29.0			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			18.5	5.5	32.5		18.5	13.5	24.5			
Max Allow Headway (MAH), s			5.4	3.8	5.1		5.4	3.8	5.3			
Max Q Clear (g_c+I1), s			20.5	6.9	27.0		20.5	15.5	26.5			
Green Ext Time (g_e), s			0.0	0.0	4.2		0.0	0.0	0.0			
Prob of Phs Call (p_c)			1.00	0.98	1.00		1.00	1.00	1.00			
Prob of Max Out (p_x)			0.00	1.00	0.98		0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			757	1781			836	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			2997		3554		2141		2891			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			551		1585		1277		641			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

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Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	80	195	0	0	146	449	0
Grp Sat Flow (s), veh/h/ln	0	757	1781	0	0	836	1781	0
Q Serve Time (g_s), s	0.0	5.5	4.9	0.0	0.0	8.4	13.5	0.0
Cycle Q Clear Time (g_c), s	0.0	18.5	4.9	0.0	0.0	18.5	13.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	757	328	0	0	836	415	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	18.5	24.5	0.0	0.0	18.5	26.5	0.0
Perm LT Serve Time (g_u), s	0.0	5.5	7.5	0.0	0.0	8.4	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	5.5	7.5	0.0	0.0	8.4	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	163	278	0	0	204	446	0
V/C Ratio (X)	0.00	0.49	0.70	0.00	0.00	0.72	1.01	0.00
Avail Cap (c_a), veh/h	0	163	278	0	0	204	446	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.75	1.00	0.00
Uniform Delay (d1), s/veh	0.0	32.9	16.4	0.0	0.0	32.1	19.8	0.0
Incr Delay (d2), s/veh	0.0	10.3	7.7	0.0	0.0	15.0	44.1	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	43.2	24.1	0.0	0.0	47.1	63.8	0.0
1st-Term Q (Q1), veh/ln	0.0	1.3	1.8	0.0	0.0	2.4	7.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.6	0.0	0.0	0.8	5.5	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.8	2.4	0.0	0.0	3.3	12.4	0.0
%ile Storage Ratio (RQ%)	0.00	0.45	0.40	0.00	0.00	0.55	1.86	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	1
Grp Vol (v), veh/h	0	288	0	1421	0	354	0	662
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	9.9	0.0	25.0	0.0	12.8	0.0	24.5
Cycle Q Clear Time (g_c), s	0.0	9.9	0.0	25.0	0.0	12.8	0.0	24.5
Lane Grp Cap (c), veh/h	0	470	0	1650	0	470	0	622
V/C Ratio (X)	0.00	0.61	0.00	0.86	0.00	0.75	0.00	1.07
Avail Cap (c_a), veh/h	0	470	0	1650	0	470	0	622
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.75	0.00	1.00
Uniform Delay (d1), s/veh	0.0	22.6	0.0	16.7	0.0	23.7	0.0	22.8
Incr Delay (d2), s/veh	0.0	5.9	0.0	4.9	0.0	8.2	0.0	54.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	28.5	0.0	21.6	0.0	31.8	0.0	77.5
1st-Term Q (Q1), veh/ln	0.0	3.9	0.0	8.9	0.0	5.0	0.0	9.3
2nd-Term Q (Q2), veh/ln	0.0	0.8	0.0	1.1	0.0	1.1	0.0	9.5

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.7	0.0	10.0	0.0	6.1	0.0	18.8
%ile Storage Ratio (RQ%)	0.00	0.26	0.00	0.41	0.00	0.10	0.00	0.47
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	289	0	146	0	330	0	660
Grp Sat Flow (s), veh/h/ln	0	1771	0	1585	0	1641	0	1755
Q Serve Time (g_s), s	0.0	10.1	0.0	3.8	0.0	13.0	0.0	24.5
Cycle Q Clear Time (g_c), s	0.0	10.1	0.0	3.8	0.0	13.0	0.0	24.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.31	0.00	1.00	0.00	0.78	0.00	0.37
Lane Grp Cap (c), veh/h	0	468	0	736	0	434	0	614
V/C Ratio (X)	0.00	0.62	0.00	0.20	0.00	0.76	0.00	1.07
Avail Cap (c_a), veh/h	0	468	0	736	0	434	0	614
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.75	0.00	1.00
Uniform Delay (d1), s/veh	0.0	22.6	0.0	11.1	0.0	23.7	0.0	22.8
Incr Delay (d2), s/veh	0.0	6.0	0.0	0.1	0.0	9.2	0.0	57.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	28.7	0.0	11.2	0.0	32.9	0.0	80.5
1st-Term Q (Q1), veh/ln	0.0	3.9	0.0	1.2	0.0	4.7	0.0	9.2
2nd-Term Q (Q2), veh/ln	0.0	0.8	0.0	0.0	0.0	1.1	0.0	9.8
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.7	0.0	1.2	0.0	5.8	0.0	19.1
%ile Storage Ratio (RQ%)	0.00	0.26	0.00	0.21	0.00	0.09	0.00	0.48
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Intersection Summary

HCM 6th Ctrl Delay	43.6
HCM 6th LOS	D

HCM 6th Signalized Intersection Capacity Analysis

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	566	947	75	160	669	581	119	1196	160	509	874	663
Future Volume (veh/h)	566	947	75	160	669	581	119	1196	160	509	874	663
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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		
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	590	986	78	167	697	605	124	1246	167	530	910	691
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	406	1151	514	224	729	325	185	1119	499	397	1338	890
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.19	0.32	0.32	0.07	0.21	0.21	0.05	0.31	0.31	0.12	0.38	0.38
Unsig. Movement Delay												
Ln Grp Delay, s/veh	244.8	38.2	24.2	38.0	51.7	432.3	54.0	97.8	28.0	210.7	28.9	23.6
Ln Grp LOS	F	D	C	D	D	F	D	F	C	F	C	C
Approach Vol, veh/h	1654			1469			1537			2131		
Approach Delay, s/veh	111.2			206.9			86.7			72.4		
Approach LOS	F			F			F			E		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Case No	2.0	3.0	1.1	3.0	2.0	3.0	1.1	3.0				
Phs Duration (G+Y+Rc), s	16.0	36.0	11.1	36.9	9.9	42.1	23.0	25.0				
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5				
Max Green (Gmax), s	11.5	31.5	6.6	32.4	5.8	37.2	18.5	20.5				
Max Allow Headway (MAH), s	3.8	5.1	3.8	5.2	3.8	4.7	3.8	4.7				
Max Q Clear (g_c+I1), s	13.5	33.5	8.6	28.0	5.5	35.9	20.5	22.5				
Green Ext Time (g_e), s	0.0	0.0	0.0	2.7	0.0	1.0	0.0	0.0				
Prob of Phs Call (p_c)	1.00	1.00	0.99	1.00	0.97	1.00	1.00	1.00				
Prob of Max Out (p_x)	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00				
Left-Turn Movement Data												
Assigned Mvmt	1	3	5	7								
Mvmt Sat Flow, veh/h	3456	1781	3456	1781								
Through Movement Data												
Assigned Mvmt	2	4	6	8								
Mvmt Sat Flow, veh/h	3554	3554	3554	3554								
Right-Turn Movement Data												
Assigned Mvmt	12	14	16	18								
Mvmt Sat Flow, veh/h	1585	1585	1585	1585								
Left Lane Group Data												
Assigned Mvmt	1	0	3	0	5	0	7	0				
Lane Assignment	L (Prot)	L (Pr/Pm)	L (Prot)	L (Pr/Pm)								

HCM 6th Signalized Intersection Capacity Analysis

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Lanes in Grp	2	0	1	0	2	0	1	0
Grp Vol (v), veh/h	530	0	167	0	124	0	590	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	1781	0
Q Serve Time (g_s), s	11.5	0.0	6.6	0.0	3.5	0.0	18.5	0.0
Cycle Q Clear Time (g_c), s	11.5	0.0	6.6	0.0	3.5	0.0	18.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	530	0	0	0	423	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	20.5	0.0	0.0	0.0	22.5	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	6.4	0.0	0.0	0.0	1.1	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	6.4	0.0	0.0	0.0	1.1	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	397	0	224	0	185	0	406	0
V/C Ratio (X)	1.33	0.00	0.75	0.00	0.67	0.00	1.45	0.00
Avail Cap (c_a), veh/h	397	0	224	0	200	0	406	0
Upstream Filter (I)	1.00	0.00	0.40	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	44.3	0.0	32.6	0.0	46.5	0.0	27.9	0.0
Incr Delay (d2), s/veh	166.5	0.0	5.4	0.0	7.6	0.0	217.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	210.7	0.0	38.0	0.0	54.0	0.0	244.8	0.0
1st-Term Q (Q1), veh/ln	4.9	0.0	3.2	0.0	1.5	0.0	7.6	0.0
2nd-Term Q (Q2), veh/ln	9.2	0.0	0.3	0.0	0.2	0.0	24.5	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	14.1	0.0	3.5	0.0	1.7	0.0	32.1	0.0
%ile Storage Ratio (RQ%)	3.57	0.00	0.30	0.00	0.27	0.00	2.72	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	33.1	0.0	0.0	0.0	0.0	0.0	45.9	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.3	0.0	0.0	0.0	0.0	0.0	0.4	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	2	0	2
Grp Vol (v), veh/h	0	1246	0	986	0	910	0	697
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	31.5	0.0	26.0	0.0	21.5	0.0	19.4
Cycle Q Clear Time (g_c), s	0.0	31.5	0.0	26.0	0.0	21.5	0.0	19.4
Lane Grp Cap (c), veh/h	0	1119	0	1151	0	1338	0	729
V/C Ratio (X)	0.00	1.11	0.00	0.86	0.00	0.68	0.00	0.96
Avail Cap (c_a), veh/h	0	1119	0	1151	0	1338	0	729
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.40
Uniform Delay (d1), s/veh	0.0	34.3	0.0	31.6	0.0	26.1	0.0	39.3
Incr Delay (d2), s/veh	0.0	63.6	0.0	6.6	0.0	2.8	0.0	12.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	97.8	0.0	38.2	0.0	28.9	0.0	51.7
1st-Term Q (Q1), veh/ln	0.0	13.2	0.0	10.8	0.0	8.8	0.0	8.3
2nd-Term Q (Q2), veh/ln	0.0	9.9	0.0	1.0	0.0	0.5	0.0	1.3

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	23.1	0.0	11.9	0.0	9.3	0.0	9.6
%ile Storage Ratio (RQ%)	0.00	0.70	0.00	0.86	0.00	1.06	0.00	0.24
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	31.6	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	167	0	78	0	691	0	605
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	8.1	0.0	3.5	0.0	33.9	0.0	20.5
Cycle Q Clear Time (g_c), s	0.0	8.1	0.0	3.5	0.0	33.9	0.0	20.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	18.5	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	499	0	514	0	890	0	325
V/C Ratio (X)	0.00	0.33	0.00	0.15	0.00	0.78	0.00	1.86
Avail Cap (c_a), veh/h	0	499	0	514	0	890	0	325
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.40
Uniform Delay (d1), s/veh	0.0	26.2	0.0	24.0	0.0	17.0	0.0	39.8
Incr Delay (d2), s/veh	0.0	1.8	0.0	0.1	0.0	6.6	0.0	392.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	28.0	0.0	24.2	0.0	23.6	0.0	432.3
1st-Term Q (Q1), veh/ln	0.0	3.0	0.0	1.3	0.0	11.4	0.0	7.8
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	1.6	0.0	35.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.3	0.0	1.3	0.0	13.0	0.0	43.3
%ile Storage Ratio (RQ%)	0.00	0.52	0.00	0.48	0.00	1.65	0.00	1.09
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	70.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5

Intersection Summary

HCM 6th Ctrl Delay	114.2
HCM 6th LOS	F

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	284	707	273	199	502	135	338	630	243	155	509	193
Future Volume (veh/h)	284	707	273	199	502	135	338	630	243	155	509	193
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	302	752	290	212	534	91	360	670	153	165	541	99
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	410	724	279	244	725	123	441	945	216	336	724	132
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.27	0.58	0.58	0.17	0.48	0.48	0.32	0.66	0.66	0.14	0.48	0.24
Unsig. Movement Delay												
Ln Grp Delay, s/veh	17.8	45.7	46.3	49.0	25.3	25.6	26.6	18.4	18.5	20.6	29.9	33.1
Ln Grp LOS	B	F	F	D	C	C	C	B	B	C	C	C
Approach Vol, veh/h		1344			837			1183			805	
Approach Delay, s/veh		39.6			31.4			20.9			29.3	
Approach LOS		D			C			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		10.2	30.8	11.4	27.6	17.2	23.8	15.4	23.6			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		5.7	26.3	6.9	23.1	12.7	19.3	10.9	19.1			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	5.3	3.8	5.3			
Max Q Clear (g_c+I1), s		7.7	14.0	8.9	25.1	14.7	14.3	12.5	13.4			
Green Ext Time (g_e), s		0.0	4.3	0.0	0.0	0.0	1.7	0.0	1.9			
Prob of Phs Call (p_c)		0.97	1.00	0.99	1.00	1.00	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.92			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			2874		2507		3001		3038			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			656		966		547		516			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)				

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	165	0	212	0	360	0	302	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	5.7	0.0	6.9	0.0	12.7	0.0	10.5	0.0
Cycle Q Clear Time (g_c), s	5.7	0.0	6.9	0.0	12.7	0.0	10.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	665	0	541	0	789	0	800	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	19.3	0.0	19.1	0.0	21.3	0.0	20.6	0.0
Perm LT Serve Time (g_u), s	14.3	0.0	0.0	0.0	7.0	0.0	7.7	0.0
Perm LT Q Serve Time (g_ps), s	1.7	0.0	0.0	0.0	7.0	0.0	6.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	336	0	244	0	441	0	410	0
V/C Ratio (X)	0.49	0.00	0.87	0.00	0.82	0.00	0.74	0.00
Avail Cap (c_a), veh/h	336	0	244	0	441	0	410	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.20	0.00
Uniform Delay (d1), s/veh	19.5	0.0	22.0	0.0	15.3	0.0	16.3	0.0
Incr Delay (d2), s/veh	1.1	0.0	27.0	0.0	11.3	0.0	1.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	20.6	0.0	49.0	0.0	26.6	0.0	17.8	0.0
1st-Term Q (Q1), veh/ln	2.1	0.0	2.6	0.0	3.4	0.0	3.1	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	1.8	0.0	1.4	0.0	0.2	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.2	0.0	4.4	0.0	4.8	0.0	3.3	0.0
%ile Storage Ratio (RQ%)	0.46	0.00	0.94	0.00	0.88	0.00	0.70	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	414	0	533	0	319	0	311
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	12.0	0.0	23.1	0.0	11.6	0.0	11.3
Cycle Q Clear Time (g_c), s	0.0	12.0	0.0	23.1	0.0	11.6	0.0	11.3
Lane Grp Cap (c), veh/h	0	584	0	513	0	429	0	424
V/C Ratio (X)	0.00	0.71	0.00	1.04	0.00	0.75	0.00	0.73
Avail Cap (c_a), veh/h	0	584	0	513	0	429	0	424
Upstream Filter (I)	0.00	1.00	0.00	0.20	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	11.2	0.0	16.9	0.0	18.7	0.0	18.9
Incr Delay (d2), s/veh	0.0	7.1	0.0	28.8	0.0	11.2	0.0	6.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.4	0.0	45.7	0.0	29.9	0.0	25.3
1st-Term Q (Q1), veh/ln	0.0	2.9	0.0	4.7	0.0	3.5	0.0	3.4
2nd-Term Q (Q2), veh/ln	0.0	1.2	0.0	4.1	0.0	1.3	0.0	0.8

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.0	0.0	8.9	0.0	4.8	0.0	4.2
%ile Storage Ratio (RQ%)	0.00	0.09	0.00	0.22	0.00	0.37	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	409	0	509	0	321	0	314
Grp Sat Flow (s), veh/h/ln	0	1752	0	1696	0	1772	0	1778
Q Serve Time (g_s), s	0.0	12.0	0.0	23.1	0.0	12.3	0.0	11.4
Cycle Q Clear Time (g_c), s	0.0	12.0	0.0	23.1	0.0	12.3	0.0	11.4
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.37	0.00	0.57	0.00	0.31	0.00	0.29
Lane Grp Cap (c), veh/h	0	576	0	490	0	427	0	424
V/C Ratio (X)	0.00	0.71	0.00	1.04	0.00	0.75	0.00	0.74
Avail Cap (c_a), veh/h	0	576	0	490	0	427	0	424
Upstream Filter (I)	0.00	1.00	0.00	0.20	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	11.2	0.0	16.9	0.0	21.6	0.0	18.9
Incr Delay (d2), s/veh	0.0	7.2	0.0	29.4	0.0	11.5	0.0	6.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.5	0.0	46.3	0.0	33.1	0.0	25.6
1st-Term Q (Q1), veh/ln	0.0	2.8	0.0	4.5	0.0	4.1	0.0	3.4
2nd-Term Q (Q2), veh/ln	0.0	1.2	0.0	4.0	0.0	1.4	0.0	0.8
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.0	0.0	8.5	0.0	5.4	0.0	4.2
%ile Storage Ratio (RQ%)	0.00	0.09	0.00	0.21	0.00	0.42	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	4.8	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗	↗	↖	↗	
Traffic Volume (veh/h)	112	1249	319	255	951	112	324	432	204	96	294	98
Future Volume (veh/h)	112	1249	319	255	951	112	324	432	204	96	294	98
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	117	1301	332	266	991	117	338	450	212	100	306	102
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	272	1111	278	248	1380	163	349	1283	572	288	950	311
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.06	0.39	0.39	0.09	0.43	0.43	0.36	0.36	0.36	0.36	0.36	0.36
Unsig. Movement Delay												
Ln Grp Delay, s/veh	18.3	113.6	128.8	102.2	24.3	24.3	63.0	21.4	22.2	31.0	22.1	22.3
Ln Grp LOS	B	F	F	F	C	C	E	C	C	C	C	C
Approach Vol, veh/h		1750			1374			1000			508	
Approach Delay, s/veh		114.4			39.4			35.6			23.9	
Approach LOS		F			D			D			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			5.0	1.1	4.0		6.0	1.1	4.0			
Phs Duration (G+Y+Rc), s			37.0	13.0	40.0		37.0	9.7	43.3			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			32.5	8.5	35.5		32.5	6.4	37.6			
Max Allow Headway (MAH), s			4.9	3.8	5.3		5.4	3.8	5.3			
Max Q Clear (g_c+I1), s			34.5	10.5	37.5		20.1	5.5	25.0			
Green Ext Time (g_e), s			0.0	0.0	0.0		2.5	0.0	6.0			
Prob of Phs Call (p_c)			1.00	1.00	1.00		1.00	0.95	1.00			
Prob of Max Out (p_x)			0.00	1.00	1.00		0.00	1.00	0.52			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			978	1781			773	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		2816		2632		3201			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		704		861		378			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

HCM 6th Signalized Intersection Capacity Analysis

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Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	338	266	0	0	100	117	0
Grp Sat Flow (s), veh/h/ln	0	978	1781	0	0	773	1781	0
Q Serve Time (g_s), s	0.0	24.8	8.5	0.0	0.0	9.8	3.5	0.0
Cycle Q Clear Time (g_c), s	0.0	32.5	8.5	0.0	0.0	18.1	3.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	978	308	0	0	773	509	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	32.5	36.3	0.0	0.0	32.5	35.5	0.0
Perm LT Serve Time (g_u), s	0.0	24.8	0.0	0.0	0.0	24.2	15.8	0.0
Perm LT Q Serve Time (g_ps), s	0.0	24.8	0.0	0.0	0.0	9.8	5.9	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	349	248	0	0	288	272	0
V/C Ratio (X)	0.00	0.97	1.07	0.00	0.00	0.35	0.43	0.00
Avail Cap (c_a), veh/h	0	349	248	0	0	288	296	0
Upstream Filter (I)	0.00	0.52	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	35.1	24.8	0.0	0.0	27.7	17.2	0.0
Incr Delay (d2), s/veh	0.0	27.8	77.4	0.0	0.0	3.3	1.1	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	63.0	102.2	0.0	0.0	31.0	18.3	0.0
1st-Term Q (Q1), veh/ln	0.0	7.5	3.4	0.0	0.0	1.8	1.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	2.7	5.3	0.0	0.0	0.3	0.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	10.2	8.7	0.0	0.0	2.0	1.4	0.0
%ile Storage Ratio (RQ%)	0.00	1.72	1.47	0.00	0.00	0.32	0.24	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	450	0	811	0	205	0	550
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	8.3	0.0	35.5	0.0	7.5	0.0	22.9
Cycle Q Clear Time (g_c), s	0.0	8.3	0.0	35.5	0.0	7.5	0.0	22.9
Lane Grp Cap (c), veh/h	0	1283	0	701	0	642	0	766
V/C Ratio (X)	0.00	0.35	0.00	1.16	0.00	0.32	0.00	0.72
Avail Cap (c_a), veh/h	0	1283	0	701	0	642	0	766
Upstream Filter (I)	0.00	0.52	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	21.0	0.0	27.3	0.0	20.8	0.0	21.1
Incr Delay (d2), s/veh	0.0	0.4	0.0	86.4	0.0	1.3	0.0	3.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	21.4	0.0	113.6	0.0	22.1	0.0	24.3
1st-Term Q (Q1), veh/ln	0.0	3.4	0.0	14.2	0.0	3.0	0.0	9.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	16.8	0.0	0.2	0.0	0.7

HCM 6th Signalized Intersection Capacity Analysis

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.4	0.0	31.0	0.0	3.3	0.0	9.7
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.91	0.00	0.37	0.00	0.18
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	27.6	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	212	0	822	0	203	0	558
Grp Sat Flow (s), veh/h/ln	0	1585	0	1744	0	1715	0	1802
Q Serve Time (g_s), s	0.0	8.9	0.0	35.5	0.0	7.7	0.0	23.0
Cycle Q Clear Time (g_c), s	0.0	8.9	0.0	35.5	0.0	7.7	0.0	23.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.40	0.00	0.50	0.00	0.21
Lane Grp Cap (c), veh/h	0	572	0	688	0	619	0	777
V/C Ratio (X)	0.00	0.37	0.00	1.19	0.00	0.33	0.00	0.72
Avail Cap (c_a), veh/h	0	572	0	688	0	619	0	777
Upstream Filter (I)	0.00	0.52	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	21.2	0.0	27.3	0.0	20.8	0.0	21.1
Incr Delay (d2), s/veh	0.0	1.0	0.0	101.5	0.0	1.4	0.0	3.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.2	0.0	128.8	0.0	22.3	0.0	24.3
1st-Term Q (Q1), veh/ln	0.0	3.2	0.0	13.9	0.0	3.0	0.0	9.2
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	19.4	0.0	0.2	0.0	0.7
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.4	0.0	33.3	0.0	3.3	0.0	9.9
%ile Storage Ratio (RQ%)	0.00	0.57	0.00	0.98	0.00	0.37	0.00	0.19
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	33.5	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	65.2
HCM 6th LOS	E

Future Year (2045) No Build - Mitigation

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

07/24/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	773	54	293	1331	174	22	445	578	274	603	494
Future Volume (veh/h)	216	773	54	293	1331	174	22	445	578	274	603	494
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	257	920	64	349	1585	88	26	530	450	326	718	350
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	264	1199	83	371	1562	778	46	643	1086	330	1209	1362
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.30	0.49	0.49	0.42	0.61	0.61	0.05	0.36	0.36	0.37	0.68	0.34
Unsig. Movement Delay												
Ln Grp Delay, s/veh	83.3	27.4	31.1	40.3	34.3	7.5	57.5	41.9	18.4	77.9	14.4	15.4
Ln Grp LOS	F	C	C	D	F	A	E	D	B	E	B	B
Approach Vol, veh/h		1241			2022			1006			1394	
Approach Delay, s/veh		40.0			34.2			31.8			29.5	
Approach LOS		D			C			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		2.0	3.0	2.0	4.0	2.0	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		23.0	22.6	25.3	29.1	7.1	38.5	19.3	35.1			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		18.5	18.1	20.9	24.5	5.7	30.9	14.8	30.6			
Max Allow Headway (MAH), s		3.7	4.5	3.7	4.9	3.7	4.6	3.7	4.9			
Max Q Clear (g_c+I1), s		20.2	15.6	20.8	17.5	3.4	12.8	16.3	32.6			
Green Ext Time (g_e), s		0.0	1.3	0.0	3.3	0.0	5.7	0.0	0.0			
Prob of Phs Call (p_c)		1.00	1.00	1.00	1.00	0.51	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.74	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		4875		3554		5106			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			2790		338		2790		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Prot)		L (Prot)		L (Prot)		L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

07/24/2020

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	326	0	349	0	26	0	257	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	18.2	0.0	18.8	0.0	1.4	0.0	14.3	0.0
Cycle Q Clear Time (g_c), s	18.2	0.0	18.8	0.0	1.4	0.0	14.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	330	0	371	0	46	0	264	0
V/C Ratio (X)	0.99	0.00	0.94	0.00	0.57	0.00	0.97	0.00
Avail Cap (c_a), veh/h	330	0	372	0	102	0	264	0
Upstream Filter (I)	1.00	0.00	0.24	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	31.4	0.0	28.6	0.0	46.9	0.0	35.0	0.0
Incr Delay (d2), s/veh	46.5	0.0	11.7	0.0	10.6	0.0	48.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	77.9	0.0	40.3	0.0	57.5	0.0	83.3	0.0
1st-Term Q (Q1), veh/ln	5.6	0.0	5.5	0.0	0.6	0.0	4.8	0.0
2nd-Term Q (Q2), veh/ln	4.3	0.0	1.2	0.0	0.1	0.0	3.5	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	9.9	0.0	6.7	0.0	0.7	0.0	8.4	0.0
%ile Storage Ratio (RQ%)	0.74	0.00	0.63	0.00	0.07	0.00	0.73	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	2	0	3
Grp Vol (v), veh/h	0	530	0	642	0	718	0	1585
Grp Sat Flow (s), veh/h/ln	0	1777	0	1702	0	1777	0	1702
Q Serve Time (g_s), s	0.0	13.6	0.0	15.4	0.0	10.8	0.0	30.6
Cycle Q Clear Time (g_c), s	0.0	13.6	0.0	15.4	0.0	10.8	0.0	30.6
Lane Grp Cap (c), veh/h	0	643	0	837	0	1209	0	1562
V/C Ratio (X)	0.00	0.82	0.00	0.77	0.00	0.59	0.00	1.01
Avail Cap (c_a), veh/h	0	643	0	837	0	1209	0	1562
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.24
Uniform Delay (d1), s/veh	0.0	30.5	0.0	23.1	0.0	12.3	0.0	19.4
Incr Delay (d2), s/veh	0.0	11.4	0.0	4.3	0.0	2.2	0.0	14.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	41.9	0.0	27.4	0.0	14.4	0.0	34.3
1st-Term Q (Q1), veh/ln	0.0	4.5	0.0	4.3	0.0	2.8	0.0	5.5
2nd-Term Q (Q2), veh/ln	0.0	1.0	0.0	0.5	0.0	0.4	0.0	2.2

HCM 6th Signalized Intersection Capacity Analysis

1: Tapo Canyon Rd & E Los Angeles Ave

07/24/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.5	0.0	4.8	0.0	3.2	0.0	7.7
%ile Storage Ratio (RQ%)	0.00	0.53	0.00	0.16	0.00	1.27	0.00	0.20
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	450	0	342	0	350	0	88
Grp Sat Flow (s), veh/h/ln	0	1395	0	1809	0	1395	0	1585
Q Serve Time (g_s), s	0.0	11.3	0.0	15.5	0.0	7.3	0.0	1.8
Cycle Q Clear Time (g_c), s	0.0	11.3	0.0	15.5	0.0	7.3	0.0	1.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1394.8	0.0	0.0	0.0	1394.8	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	20.8	0.0	0.0	0.0	14.8	0.0	18.5
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.19	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	1086	0	445	0	1362	0	778
V/C Ratio (X)	0.00	0.41	0.00	0.77	0.00	0.26	0.00	0.11
Avail Cap (c_a), veh/h	0	1086	0	445	0	1362	0	778
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.24
Uniform Delay (d1), s/veh	0.0	17.2	0.0	23.1	0.0	15.0	0.0	7.5
Incr Delay (d2), s/veh	0.0	1.2	0.0	8.0	0.0	0.5	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.4	0.0	31.1	0.0	15.4	0.0	7.5
1st-Term Q (Q1), veh/ln	0.0	2.7	0.0	4.6	0.0	2.1	0.0	0.5
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	1.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.9	0.0	5.6	0.0	2.2	0.0	0.5
%ile Storage Ratio (RQ%)	0.00	0.48	0.00	0.18	0.00	0.17	0.00	0.09
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	33.9
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
5: Sequoia Ave & Cochran St

07/24/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	283	846	70	129	1156	185	133	653	72	154	465	395	
Future Volume (veh/h)	283	846	70	129	1156	185	133	653	72	154	465	395	
Number	7	4	14	3	8	18	5	2	12	1	6	16	
Initial Q, 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		
Lanes Open During Work Zone													
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	393	1175	28	179	1606	118	185	907	72	214	646	132	
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Opposing Right Turn Influence	Yes			Yes			Yes			Yes			
Cap, veh/h	303	1671	519	377	1671	519	258	1122	89	212	989	202	
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	
Prop Arrive On Green	0.18	0.65	0.65	0.18	0.65	0.65	0.67	0.67	0.67	0.67	0.67	0.34	
Unsig. Movement Delay													
Ln Grp Delay, s/veh	172.6	9.1	6.5	11.1	23.1	6.9	30.5	19.0	18.7	70.5	10.9	13.8	
Ln Grp LOS	F	A	A	B	C	A	C	B	B	F	B	B	
Approach Vol, veh/h		1596			1903			1164			992		
Approach Delay, s/veh		49.3			21.0			20.7			24.9		
Approach LOS		D			C			C			C		
Timer:		1	2	3	4	5	6	7	8				
Assigned Phs			2	3	4		6	7	8				
Case No			6.0	1.1	3.0		6.0	1.1	3.0				
Phs Duration (G+Y+Rc), s			23.0	9.5	22.5		23.0	9.5	22.5				
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5				
Max Green (Gmax), s			18.5	5.0	18.0		18.5	5.0	18.0				
Max Allow Headway (MAH), s			5.1	3.7	4.9		5.5	3.7	4.8				
Max Q Clear (g_c+I1), s			20.5	5.6	10.1		20.5	7.0	18.1				
Green Ext Time (g_e), s			0.0	0.0	4.4		0.0	0.0	0.0				
Prob of Phs Call (p_c)			1.00	0.94	1.00		1.00	1.00	1.00				
Prob of Max Out (p_x)			0.00	1.00	0.72		0.00	1.00	1.00				
Left-Turn Movement Data													
Assigned Mvmt			5	3			1	7					
Mvmt Sat Flow, veh/h			694	1781			575	1781					
Through Movement Data													
Assigned Mvmt			2		4		6		8				
Mvmt Sat Flow, veh/h			3335		5106		2939		5106				
Right-Turn Movement Data													
Assigned Mvmt			12		14		16		18				
Mvmt Sat Flow, veh/h			265		1585		600		1585				
Left Lane Group Data													
Assigned Mvmt		0	5	3	0	0	1	7	0				
Lane Assignment			LL (Pr/Pm)					LL (Pr/Pm)					

HCM 6th Signalized Intersection Capacity Analysis

5: Sequoia Ave & Cochran St

07/24/2020

Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	185	179	0	0	214	393	0
Grp Sat Flow (s), veh/h/ln	0	694	1781	0	0	575	1781	0
Q Serve Time (g_s), s	0.0	10.1	3.6	0.0	0.0	7.8	5.0	0.0
Cycle Q Clear Time (g_c), s	0.0	18.5	3.6	0.0	0.0	18.5	5.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	694	465	0	0	575	282	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	18.5	18.0	0.0	0.0	18.5	18.0	0.0
Perm LT Serve Time (g_u), s	0.0	10.1	9.9	0.0	0.0	7.8	1.9	0.0
Perm LT Q Serve Time (g_ps), s	0.0	10.1	4.3	0.0	0.0	7.8	1.9	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	258	377	0	0	212	303	0
V/C Ratio (X)	0.00	0.72	0.48	0.00	0.00	1.01	1.30	0.00
Avail Cap (c_a), veh/h	0	258	377	0	0	212	303	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.69	1.00	0.00
Uniform Delay (d1), s/veh	0.0	14.8	10.1	0.0	0.0	16.8	15.8	0.0
Incr Delay (d2), s/veh	0.0	15.7	0.9	0.0	0.0	53.7	156.8	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	30.5	11.1	0.0	0.0	70.5	172.6	0.0
1st-Term Q (Q1), veh/ln	0.0	1.0	0.9	0.0	0.0	1.7	1.7	0.0
2nd-Term Q (Q2), veh/ln	0.0	1.1	0.1	0.0	0.0	3.2	13.2	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	2.2	1.0	0.0	0.0	4.9	14.9	0.0
%ile Storage Ratio (RQ%)	0.00	0.55	0.17	0.00	0.00	0.83	2.22	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.5	22.6	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	3	0	1	0	3
Grp Vol (v), veh/h	0	483	0	1175	0	390	0	1606
Grp Sat Flow (s), veh/h/ln	0	1777	0	1702	0	1777	0	1702
Q Serve Time (g_s), s	0.0	10.7	0.0	8.1	0.0	7.0	0.0	16.1
Cycle Q Clear Time (g_c), s	0.0	10.7	0.0	8.1	0.0	7.0	0.0	16.1
Lane Grp Cap (c), veh/h	0	598	0	1671	0	598	0	1671
V/C Ratio (X)	0.00	0.81	0.00	0.70	0.00	0.65	0.00	0.96
Avail Cap (c_a), veh/h	0	598	0	1671	0	598	0	1671
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.69	0.00	1.00
Uniform Delay (d1), s/veh	0.0	7.7	0.0	7.8	0.0	7.1	0.0	9.2
Incr Delay (d2), s/veh	0.0	11.3	0.0	1.4	0.0	3.8	0.0	13.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.0	0.0	9.1	0.0	10.9	0.0	23.1
1st-Term Q (Q1), veh/ln	0.0	1.8	0.0	1.5	0.0	1.4	0.0	2.2
2nd-Term Q (Q2), veh/ln	0.0	1.9	0.0	0.2	0.0	0.6	0.0	2.2

HCM 6th Signalized Intersection Capacity Analysis

5: Sequoia Ave & Cochran St

07/24/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.7	0.0	1.7	0.0	2.0	0.0	4.4
%ile Storage Ratio (RQ%)	0.00	0.41	0.00	0.03	0.00	0.05	0.00	0.10
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

























Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		R		T+R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	496	0	28	0	388	0	118
Grp Sat Flow (s), veh/h/ln	0	1823	0	1585	0	1762	0	1585
Q Serve Time (g_s), s	0.0	10.7	0.0	0.3	0.0	8.4	0.0	1.7
Cycle Q Clear Time (g_c), s	0.0	10.7	0.0	0.3	0.0	8.4	0.0	1.7
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.15	0.00	1.00	0.00	0.34	0.00	1.00
Lane Grp Cap (c), veh/h	0	613	0	519	0	593	0	519
V/C Ratio (X)	0.00	0.81	0.00	0.05	0.00	0.65	0.00	0.23
Avail Cap (c_a), veh/h	0	613	0	519	0	593	0	519
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.69	0.00	1.00
Uniform Delay (d1), s/veh	0.0	7.7	0.0	6.5	0.0	9.9	0.0	6.7
Incr Delay (d2), s/veh	0.0	11.0	0.0	0.0	0.0	3.9	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
Control Delay (d), s/veh	0.0	18.7	0.0	6.5	0.0	13.8	0.0	6.9
1st-Term Q (Q1), veh/ln	0.0	1.9	0.0	0.1	0.0	2.0	0.0	0.4
2nd-Term Q (Q2), veh/ln	0.0	1.9	0.0	0.0	0.0	0.6	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.7	0.0	0.1	0.0	2.6	0.0	0.5
%ile Storage Ratio (RQ%)	0.00	0.42	0.00	0.02	0.00	0.06	0.00	0.08
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	29.6
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
6: Tapo Canyon Rd & Cochran St

07/24/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	655	616	121	157	625	468	82	820	98	334	1102	509
Future Volume (veh/h)	655	616	121	157	625	468	82	820	98	334	1102	509
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	780	733	25	187	744	438	98	976	57	398	1312	368
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	893	1604	498	441	1270	394	192	1200	534	428	1549	1313
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.33	0.63	0.63	0.20	0.50	0.50	0.11	0.47	0.47	0.25	0.61	0.30
Unsig. Movement Delay												
Ln Grp Delay, s/veh	25.1	11.5	10.3	16.9	17.4	83.0	36.7	25.8	12.9	56.8	20.2	13.4
Ln Grp LOS	C	B	B	B	B	F	D	C	B	E	C	B
Approach Vol, veh/h		1538			1369			1131			2078	
Approach Delay, s/veh		18.4			38.4			26.1			26.0	
Approach LOS		B			D			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		2.0	3.0	1.1	3.0	2.0	3.0	1.1	3.0			
Phs Duration (G+Y+Rc), s		14.4	23.3	12.7	29.6	8.9	28.8	17.9	24.4			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		9.9	18.8	12.0	21.3	5.0	23.7	13.4	19.9			
Max Allow Headway (MAH), s		3.8	5.2	3.8	5.2	3.8	5.0	3.8	4.8			
Max Q Clear (g_c+I1), s		11.0	15.1	8.1	8.0	4.1	18.6	15.4	21.9			
Green Ext Time (g_e), s		0.0	2.2	0.2	4.3	0.0	3.9	0.0	0.0			
Prob of Phs Call (p_c)		1.00	1.00	0.98	1.00	0.89	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	0.94	0.23	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		3456		1781		3456		3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			5106		5106		5106		5106			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		2790		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Prot)		L (Pr/Pm)		L (Prot)		L (Pr/Pm)				

HCM 6th Signalized Intersection Capacity Analysis
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Lanes in Grp	2	0	1	0	2	0	2	0
Grp Vol (v), veh/h	398	0	187	0	98	0	780	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	1728	0
Q Serve Time (g_s), s	9.0	0.0	6.1	0.0	2.1	0.0	13.4	0.0
Cycle Q Clear Time (g_c), s	9.0	0.0	6.1	0.0	2.1	0.0	13.4	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	707	0	0	0	460	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	19.9	0.0	0.0	0.0	21.9	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	19.2	0.0	0.0	0.0	11.6	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.2	0.0	0.0	0.0	11.6	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	428	0	441	0	192	0	893	0
V/C Ratio (X)	0.93	0.00	0.42	0.00	0.51	0.00	0.87	0.00
Avail Cap (c_a), veh/h	428	0	526	0	216	0	893	0
Upstream Filter (I)	1.00	0.00	0.36	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	29.8	0.0	16.7	0.0	34.5	0.0	15.5	0.0
Incr Delay (d2), s/veh	27.0	0.0	0.2	0.0	2.1	0.0	9.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	56.8	0.0	16.9	0.0	36.7	0.0	25.1	0.0
1st-Term Q (Q1), veh/ln	3.1	0.0	2.1	0.0	0.9	0.0	3.6	0.0
2nd-Term Q (Q2), veh/ln	1.6	0.0	0.0	0.0	0.1	0.0	1.2	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	4.7	0.0	2.1	0.0	0.9	0.0	4.8	0.0
%ile Storage Ratio (RQ%)	1.21	0.00	0.18	0.00	0.14	0.00	0.41	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	3	0	3	0	3	0	3
Grp Vol (v), veh/h	0	976	0	733	0	1312	0	744
Grp Sat Flow (s), veh/h/ln	0	1702	0	1702	0	1702	0	1702
Q Serve Time (g_s), s	0.0	13.1	0.0	6.0	0.0	16.6	0.0	8.3
Cycle Q Clear Time (g_c), s	0.0	13.1	0.0	6.0	0.0	16.6	0.0	8.3
Lane Grp Cap (c), veh/h	0	1200	0	1604	0	1549	0	1270
V/C Ratio (X)	0.00	0.81	0.00	0.46	0.00	0.85	0.00	0.59
Avail Cap (c_a), veh/h	0	1200	0	1604	0	1549	0	1270
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.36
Uniform Delay (d1), s/veh	0.0	19.7	0.0	11.3	0.0	14.2	0.0	17.2
Incr Delay (d2), s/veh	0.0	6.1	0.0	0.2	0.0	5.9	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	25.8	0.0	11.5	0.0	20.2	0.0	17.4
1st-Term Q (Q1), veh/ln	0.0	3.7	0.0	1.8	0.0	3.6	0.0	2.5
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.0	0.0	0.9	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

6: Tapo Canyon Rd & Cochran St

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.3	0.0	1.8	0.0	4.5	0.0	2.6
%ile Storage Ratio (RQ%)	0.00	0.29	0.00	0.07	0.00	0.58	0.00	0.06
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	2	0	1
Grp Vol (v), veh/h	0	57	0	25	0	368	0	438
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1395	0	1585
Q Serve Time (g_s), s	0.0	1.4	0.0	0.5	0.0	6.4	0.0	19.9
Cycle Q Clear Time (g_c), s	0.0	1.4	0.0	0.5	0.0	6.4	0.0	19.9
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	0.0	0.0	0.0	1394.8	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	8.2	0.0	0.0	0.0	13.4	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	534	0	498	0	1313	0	394
V/C Ratio (X)	0.00	0.11	0.00	0.05	0.00	0.28	0.00	1.11
Avail Cap (c_a), veh/h	0	534	0	498	0	1313	0	394
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.36
Uniform Delay (d1), s/veh	0.0	12.5	0.0	10.3	0.0	12.9	0.0	20.1
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	0.0	0.5	0.0	62.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	12.9	0.0	10.3	0.0	13.4	0.0	83.0
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	0.2	0.0	1.9	0.0	4.4
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	6.9
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.5	0.0	0.2	0.0	2.0	0.0	11.3
%ile Storage Ratio (RQ%)	0.00	0.09	0.00	0.06	0.00	0.25	0.00	0.28
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Intersection Summary

HCM 6th Ctrl Delay	26.9
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
8: Sequoia Ave & Cochran St

07/24/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	59	658	157	254	868	131	277	414	419	169	450	79	
Future Volume (veh/h)	59	658	157	254	868	131	277	414	419	169	450	79	
Number	7	4	14	3	8	18	5	2	12	1	6	16	
Initial Q, 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		
Lanes Open During Work Zone													
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	84	940	153	363	1240	116	396	591	456	241	643	113	
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Opposing Right Turn Influence	Yes			Yes			Yes			Yes			
Cap, veh/h	180	1017	316	280	1291	401	435	1938	864	374	1647	289	
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00	
Prop Arrive On Green	0.10	0.40	0.40	0.21	0.51	0.51	1.00	1.00	1.00	1.00	1.00	0.55	
Unsig. Movement Delay													
Ln Grp Delay, s/veh	28.5	39.9	24.8	182.5	38.2	17.9	14.3	0.1	0.7	8.3	1.2	4.2	
Ln Grp LOS	C	D	C	F	D	B	B	A	A	A	A	A	
Approach Vol, veh/h		1177			1719			1443			997		
Approach Delay, s/veh		37.1			67.3			4.2			4.1		
Approach LOS		D			E			A			A		
Timer:		1	2	3	4	5	6	7	8				
Assigned Phs			2	3	4		6	7	8				
Case No			5.0	1.1	3.0		6.0	1.1	3.0				
Phs Duration (G+Y+Rc), s			53.6	14.0	22.4		53.6	9.2	27.3				
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5				
Max Green (Gmax), s			49.0	9.5	18.0		49.0	5.0	22.5				
Max Allow Headway (MAH), s			5.1	3.8	5.1		5.9	3.8	5.1				
Max Q Clear (g_c+I1), s			51.1	11.5	17.8		5.9	5.3	23.0				
Green Ext Time (g_e), s			0.0	0.0	0.2		10.0	0.0	0.0				
Prob of Phs Call (p_c)			1.00	1.00	1.00		1.00	0.88	1.00				
Prob of Max Out (p_x)			0.00	1.00	1.00		0.00	1.00	1.00				
Left-Turn Movement Data													
Assigned Mvmt			5	3			1	7					
Mvmt Sat Flow, veh/h			708	1781			539	1781					
Through Movement Data													
Assigned Mvmt			2		4		6		8				
Mvmt Sat Flow, veh/h			3554		5106		3022		5106				
Right-Turn Movement Data													
Assigned Mvmt			12		14		16		18				
Mvmt Sat Flow, veh/h			1585		1585		530		1585				
Left Lane Group Data													
Assigned Mvmt		0	5	3	0	0	1	7	0				
Lane Assignment			LL (Pr/Pm)					LL (Pr/Pm)					

HCM 6th Signalized Intersection Capacity Analysis

8: Sequoia Ave & Cochran St

07/24/2020

Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	396	363	0	0	241	84	0
Grp Sat Flow (s), veh/h/ln	0	708	1781	0	0	539	1781	0
Q Serve Time (g_s), s	0.0	45.1	9.5	0.0	0.0	0.0	3.3	0.0
Cycle Q Clear Time (g_c), s	0.0	49.1	9.5	0.0	0.0	0.0	3.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	708	516	0	0	539	402	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	49.1	19.9	0.0	0.0	49.1	17.9	0.0
Perm LT Serve Time (g_u), s	0.0	45.1	2.2	0.0	0.0	49.1	1.8	0.0
Perm LT Q Serve Time (g_ps), s	0.0	45.1	2.2	0.0	0.0	0.0	1.8	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	435	280	0	0	374	180	0
V/C Ratio (X)	0.00	0.91	1.29	0.00	0.00	0.64	0.47	0.00
Avail Cap (c_a), veh/h	0	435	280	0	0	374	187	0
Upstream Filter (I)	0.00	0.30	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	4.3	26.0	0.0	0.0	0.0	26.6	0.0
Incr Delay (d2), s/veh	0.0	10.1	156.5	0.0	0.0	8.3	1.9	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.3	182.5	0.0	0.0	8.3	28.5	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	4.0	0.0	0.0	0.0	1.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	1.2	12.2	0.0	0.0	0.9	0.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.2	16.2	0.0	0.0	0.9	1.4	0.0
%ile Storage Ratio (RQ%)	0.00	0.21	2.74	0.00	0.00	0.14	0.24	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	20.7	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	3	0	1	0	3
Grp Vol (v), veh/h	0	591	0	940	0	378	0	1240
Grp Sat Flow (s), veh/h/ln	0	1777	0	1702	0	1777	0	1702
Q Serve Time (g_s), s	0.0	0.0	0.0	15.8	0.0	0.0	0.0	21.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	15.8	0.0	0.0	0.0	21.0
Lane Grp Cap (c), veh/h	0	1938	0	1017	0	969	0	1291
V/C Ratio (X)	0.00	0.31	0.00	0.92	0.00	0.39	0.00	0.96
Avail Cap (c_a), veh/h	0	1938	0	1021	0	969	0	1291
Upstream Filter (I)	0.00	0.30	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	26.4	0.0	0.0	0.0	21.8
Incr Delay (d2), s/veh	0.0	0.1	0.0	13.5	0.0	1.2	0.0	16.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.1	0.0	39.9	0.0	1.2	0.0	38.2
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	4.7	0.0	0.0	0.0	5.3
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	1.3	0.0	0.3	0.0	2.0

HCM 6th Signalized Intersection Capacity Analysis
8: Sequoia Ave & Cochran St

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	6.0	0.0	0.3	0.0	7.2
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.17	0.00	0.04	0.00	0.16
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		T+R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	456	0	153	0	378	0	116
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1775	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	6.5	0.0	3.9	0.0	3.8
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	6.5	0.0	3.9	0.0	3.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.30	0.00	1.00
Lane Grp Cap (c), veh/h	0	864	0	316	0	968	0	401
V/C Ratio (X)	0.00	0.53	0.00	0.48	0.00	0.39	0.00	0.29
Avail Cap (c_a), veh/h	0	864	0	317	0	968	0	401
Upstream Filter (I)	0.00	0.30	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	23.6	0.0	3.0	0.0	17.6
Incr Delay (d2), s/veh	0.0	0.7	0.0	1.2	0.0	1.2	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
Control Delay (d), s/veh	0.0	0.7	0.0	24.8	0.0	4.2	0.0	17.9
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	2.1	0.0	1.0	0.0	1.3
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.1	0.0	0.3	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	2.2	0.0	1.3	0.0	1.3
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.06	0.00	0.19	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	31.8
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

07/24/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	416	1238	11	280	1048	240	48	668	609	243	324	316
Future Volume (veh/h)	416	1238	11	280	1048	240	48	668	609	243	324	316
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	438	1303	12	295	1103	148	51	703	430	256	341	122
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	458	1589	15	320	1159	495	372	892	700	294	1060	832
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.51	0.61	0.61	0.36	0.45	0.45	0.08	0.50	0.50	0.17	0.60	0.30
Unsig. Movement Delay												
Ln Grp Delay, s/veh	54.1	22.7	26.7	44.7	33.8	18.2	25.2	29.7	25.4	64.5	15.9	26.1
Ln Grp LOS	D	C	C	D	C	B	C	C	C	E	B	C
Approach Vol, veh/h		1753			1546			1184			719	
Approach Delay, s/veh		31.6			34.4			27.9			35.0	
Approach LOS		C			C			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		2.0	3.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		13.0	29.6	22.4	34.9	8.3	34.3	30.2	27.2			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		8.5	24.3	18.6	30.6	5.1	27.7	26.5	22.7			
Max Allow Headway (MAH), s		3.7	4.5	3.7	4.9	3.7	4.7	3.7	4.8			
Max Q Clear (g_c+I1), s		9.2	18.3	17.9	21.5	4.1	6.8	25.5	22.8			
Green Ext Time (g_e), s		0.0	3.1	0.1	5.1	0.0	2.4	0.2	0.0			
Prob of Phs Call (p_c)		1.00	1.00	1.00	1.00	0.76	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.69	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		3456		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		5218		3554		5106			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			2790		48		2790		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Prot)		L (Prot)		L (Pr/Pm)		L (Prot)				

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Lanes in Grp	2	0	1	0	1	0	1	0
Grp Vol (v), veh/h	256	0	295	0	51	0	438	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	7.2	0.0	15.9	0.0	2.1	0.0	23.5	0.0
Cycle Q Clear Time (g_c), s	7.2	0.0	15.9	0.0	2.1	0.0	23.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	929	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	25.1	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	25.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	294	0	320	0	372	0	458	0
V/C Ratio (X)	0.87	0.00	0.92	0.00	0.14	0.00	0.96	0.00
Avail Cap (c_a), veh/h	294	0	331	0	395	0	472	0
Upstream Filter (I)	1.00	0.00	0.33	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	41.0	0.0	31.4	0.0	25.0	0.0	23.8	0.0
Incr Delay (d2), s/veh	23.6	0.0	13.3	0.0	0.2	0.0	30.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	64.5	0.0	44.7	0.0	25.2	0.0	54.1	0.0
1st-Term Q (Q1), veh/ln	2.7	0.0	5.1	0.0	0.8	0.0	5.8	0.0
2nd-Term Q (Q2), veh/ln	1.0	0.0	1.2	0.0	0.0	0.0	3.9	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	3.7	0.0	6.3	0.0	0.8	0.0	9.7	0.0
%ile Storage Ratio (RQ%)	0.27	0.00	0.59	0.00	0.08	0.00	0.85	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	2	0	3
Grp Vol (v), veh/h	0	703	0	850	0	341	0	1103
Grp Sat Flow (s), veh/h/ln	0	1777	0	1702	0	1777	0	1702
Q Serve Time (g_s), s	0.0	16.3	0.0	19.5	0.0	4.8	0.0	20.8
Cycle Q Clear Time (g_c), s	0.0	16.3	0.0	19.5	0.0	4.8	0.0	20.8
Lane Grp Cap (c), veh/h	0	892	0	1036	0	1060	0	1159
V/C Ratio (X)	0.00	0.79	0.00	0.82	0.00	0.32	0.00	0.95
Avail Cap (c_a), veh/h	0	892	0	1042	0	1060	0	1159
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.33
Uniform Delay (d1), s/veh	0.0	22.7	0.0	17.4	0.0	15.1	0.0	26.8
Incr Delay (d2), s/veh	0.0	7.0	0.0	5.3	0.0	0.8	0.0	7.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	29.7	0.0	22.7	0.0	15.9	0.0	33.8
1st-Term Q (Q1), veh/ln	0.0	4.6	0.0	4.4	0.0	1.7	0.0	5.5
2nd-Term Q (Q2), veh/ln	0.0	0.9	0.0	0.8	0.0	0.1	0.0	0.8

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.5	0.0	5.1	0.0	1.8	0.0	6.2
%ile Storage Ratio (RQ%)	0.00	0.53	0.00	0.17	0.00	0.70	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	430	0	465	0	122	0	148
Grp Sat Flow (s), veh/h/ln	0	1395	0	1862	0	1395	0	1585
Q Serve Time (g_s), s	0.0	11.1	0.0	19.5	0.0	3.2	0.0	5.6
Cycle Q Clear Time (g_c), s	0.0	11.1	0.0	19.5	0.0	3.2	0.0	5.6
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.03	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	700	0	567	0	832	0	495
V/C Ratio (X)	0.00	0.61	0.00	0.82	0.00	0.15	0.00	0.30
Avail Cap (c_a), veh/h	0	700	0	570	0	832	0	495
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.33
Uniform Delay (d1), s/veh	0.0	21.4	0.0	17.4	0.0	25.8	0.0	18.1
Incr Delay (d2), s/veh	0.0	4.0	0.0	9.3	0.0	0.4	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	25.4	0.0	26.7	0.0	26.1	0.0	18.2
1st-Term Q (Q1), veh/ln	0.0	2.8	0.0	4.8	0.0	1.0	0.0	1.7
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	1.5	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.1	0.0	6.2	0.0	1.1	0.0	1.8
%ile Storage Ratio (RQ%)	0.00	0.53	0.00	0.21	0.00	0.08	0.00	0.28
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	32.1
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

5:

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↘	↑↑	↗	↘	↑↑↑	↗	↘	↑↑		↘	↑↑		
Traffic Volume (veh/h)	422	1336	137	183	1016	227	75	458	85	137	401	242	
Future Volume (veh/h)	422	1336	137	183	1016	227	75	458	85	137	401	242	
Number	7	4	14	3	8	18	5	2	12	1	6	16	
Initial Q, 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		
Lanes Open During Work Zone													
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	449	1421	146	195	1081	135	80	487	90	146	427	257	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Opposing Right Turn Influence	Yes			Yes			Yes			Yes			
Cap, veh/h	509	1500	669	260	1564	486	198	879	162	241	628	375	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Prop Arrive On Green	0.19	0.42	0.42	0.08	0.31	0.31	0.29	0.29	0.29	0.29	0.29	0.29	
Unsig. Movement Delay													
Ln Grp Delay, s/veh	28.2	30.9	12.1	28.3	21.1	17.4	34.5	23.5	23.7	37.0	26.0	26.7	
Ln Grp LOS	C	C	B	C	C	B	C	C	C	D	C	C	
Approach Vol, veh/h		2016			1411			657			830		
Approach Delay, s/veh		28.9			21.8			24.9			28.2		
Approach LOS		C			C			C			C		
Timer:		1	2	3	4	5	6	7	8				
Assigned Phs			2	3	4		6	7	8				
Case No			6.0	1.1	3.0		6.0	1.1	3.0				
Phs Duration (G+Y+Rc), s			23.6	9.5	31.9		23.6	17.0	24.4				
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5				
Max Green (Gmax), s			19.0	5.0	27.5		19.0	13.5	19.0				
Max Allow Headway (MAH), s			5.4	3.8	5.1		5.4	3.8	5.1				
Max Q Clear (g_c+I1), s			20.4	6.9	27.0		21.1	12.3	14.1				
Green Ext Time (g_e), s			0.0	0.0	0.4		0.0	0.2	3.1				
Prob of Phs Call (p_c)			1.00	0.97	1.00		1.00	1.00	1.00				
Prob of Max Out (p_x)			0.00	1.00	1.00		0.00	1.00	1.00				
Left-Turn Movement Data													
Assigned Mvmt			5	3			1	7					
Mvmt Sat Flow, veh/h			757	1781			836	1781					
Through Movement Data													
Assigned Mvmt			2		4		6		8				
Mvmt Sat Flow, veh/h			2997		3554		2141		5106				
Right-Turn Movement Data													
Assigned Mvmt			12		14		16		18				
Mvmt Sat Flow, veh/h			551		1585		1277		1585				
Left Lane Group Data													
Assigned Mvmt		0	5	3	0	0	1	7	0				
Lane Assignment			LL (Pr/Pm)					LL (Pr/Pm)					

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Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	80	195	0	0	146	449	0
Grp Sat Flow (s), veh/h/ln	0	757	1781	0	0	836	1781	0
Q Serve Time (g_s), s	0.0	6.8	4.9	0.0	0.0	10.1	10.3	0.0
Cycle Q Clear Time (g_c), s	0.0	18.4	4.9	0.0	0.0	19.1	10.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	757	328	0	0	836	459	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	19.1	19.9	0.0	0.0	19.1	21.9	0.0
Perm LT Serve Time (g_u), s	0.0	7.5	2.4	0.0	0.0	10.1	7.8	0.0
Perm LT Q Serve Time (g_ps), s	0.0	6.8	2.4	0.0	0.0	10.1	7.8	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	198	260	0	0	241	509	0
V/C Ratio (X)	0.00	0.40	0.75	0.00	0.00	0.61	0.88	0.00
Avail Cap (c_a), veh/h	0	198	260	0	0	241	536	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.82	1.00	0.00
Uniform Delay (d1), s/veh	0.0	28.4	16.9	0.0	0.0	28.0	12.8	0.0
Incr Delay (d2), s/veh	0.0	6.0	11.5	0.0	0.0	9.0	15.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	34.5	28.3	0.0	0.0	37.0	28.2	0.0
1st-Term Q (Q1), veh/ln	0.0	1.2	1.8	0.0	0.0	2.2	3.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.8	0.0	0.0	0.6	2.2	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.5	2.6	0.0	0.0	2.8	5.5	0.0
%ile Storage Ratio (RQ%)	0.00	0.38	0.44	0.00	0.00	0.47	0.82	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	3
Grp Vol (v), veh/h	0	288	0	1421	0	354	0	1081
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1702
Q Serve Time (g_s), s	0.0	8.9	0.0	25.0	0.0	11.4	0.0	12.1
Cycle Q Clear Time (g_c), s	0.0	8.9	0.0	25.0	0.0	11.4	0.0	12.1
Lane Grp Cap (c), veh/h	0	521	0	1500	0	521	0	1564
V/C Ratio (X)	0.00	0.55	0.00	0.95	0.00	0.68	0.00	0.69
Avail Cap (c_a), veh/h	0	521	0	1503	0	521	0	1564
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.82	0.00	1.00
Uniform Delay (d1), s/veh	0.0	19.4	0.0	18.1	0.0	20.3	0.0	19.8
Incr Delay (d2), s/veh	0.0	4.2	0.0	12.8	0.0	5.8	0.0	1.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	23.5	0.0	30.9	0.0	26.0	0.0	21.1
1st-Term Q (Q1), veh/ln	0.0	3.4	0.0	8.9	0.0	4.4	0.0	4.4
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	2.7	0.0	0.8	0.0	0.2

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.0	0.0	11.6	0.0	5.2	0.0	4.6
%ile Storage Ratio (RQ%)	0.00	0.22	0.00	0.48	0.00	0.09	0.00	0.12
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		R		T+R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	289	0	146	0	330	0	135
Grp Sat Flow (s), veh/h/ln	0	1771	0	1585	0	1641	0	1585
Q Serve Time (g_s), s	0.0	9.0	0.0	3.8	0.0	11.6	0.0	4.2
Cycle Q Clear Time (g_c), s	0.0	9.0	0.0	3.8	0.0	11.6	0.0	4.2
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.31	0.00	1.00	0.00	0.78	0.00	1.00
Lane Grp Cap (c), veh/h	0	520	0	669	0	481	0	486
V/C Ratio (X)	0.00	0.56	0.00	0.22	0.00	0.69	0.00	0.28
Avail Cap (c_a), veh/h	0	520	0	671	0	481	0	486
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.82	0.00	1.00
Uniform Delay (d1), s/veh	0.0	19.4	0.0	12.0	0.0	20.3	0.0	17.1
Incr Delay (d2), s/veh	0.0	4.3	0.0	0.2	0.0	6.4	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	23.7	0.0	12.1	0.0	26.7	0.0	17.4
1st-Term Q (Q1), veh/ln	0.0	3.4	0.0	1.2	0.0	4.1	0.0	1.4
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	0.0	0.0	0.9	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.0	0.0	1.2	0.0	4.9	0.0	1.5
%ile Storage Ratio (RQ%)	0.00	0.22	0.00	0.21	0.00	0.08	0.00	0.25
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	566	947	75	160	669	581	119	1196	160	509	874	663
Future Volume (veh/h)	566	947	75	160	669	581	119	1196	160	509	874	663
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	590	986	26	167	697	501	124	1246	63	530	910	483
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	720	1437	446	320	1277	396	189	1367	424	557	1910	1382
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Prop Arrive On Green	0.24	0.56	0.56	0.18	0.50	0.50	0.11	0.54	0.54	0.32	0.75	0.75
Unsig. Movement Delay												
Ln Grp Delay, s/veh	28.4	18.2	14.3	20.7	19.2	149.6	43.1	30.6	16.5	56.7	8.7	5.8
Ln Grp LOS	C	B	B	C	B	F	D	C	B	E	A	A
Approach Vol, veh/h		1602			1365			1433			1923	
Approach Delay, s/veh		21.9			67.2			31.1			21.2	
Approach LOS		C			E			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		2.0	3.0	1.1	3.0	2.0	3.0	1.1	3.0			
Phs Duration (G+Y+Rc), s		19.0	28.6	12.6	29.8	9.4	38.2	15.4	27.0			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		14.5	24.1	8.5	24.9	7.1	31.5	10.9	22.5			
Max Allow Headway (MAH), s		3.8	5.2	3.8	5.2	3.8	4.8	3.8	4.7			
Max Q Clear (g_c+I1), s		15.5	21.9	8.2	14.4	5.1	8.3	12.9	24.5			
Green Ext Time (g_e), s		0.0	1.6	0.0	5.0	0.1	9.3	0.0	0.0			
Prob of Phs Call (p_c)		1.00	1.00	0.98	1.00	0.95	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.52	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		3456		1781		3456		3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			5106		5106		5106		5106			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		2790		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Prot)		L (Pr/Pm)		L (Prot)		L (Pr/Pm)				

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Lanes in Grp	2	0	1	0	2	0	2	0
Grp Vol (v), veh/h	530	0	167	0	124	0	590	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	1728	0
Q Serve Time (g_s), s	13.5	0.0	6.2	0.0	3.1	0.0	10.9	0.0
Cycle Q Clear Time (g_c), s	13.5	0.0	6.2	0.0	3.1	0.0	10.9	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	557	0	0	0	453	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	22.5	0.0	0.0	0.0	22.8	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	13.0	0.0	0.0	0.0	14.1	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	3.5	0.0	0.0	0.0	14.1	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	557	0	320	0	189	0	720	0
V/C Ratio (X)	0.95	0.00	0.52	0.00	0.66	0.00	0.82	0.00
Avail Cap (c_a), veh/h	557	0	328	0	273	0	720	0
Upstream Filter (I)	1.00	0.00	0.40	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	30.2	0.0	20.2	0.0	39.3	0.0	21.0	0.0
Incr Delay (d2), s/veh	26.6	0.0	0.6	0.0	3.8	0.0	7.5	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	56.7	0.0	20.7	0.0	43.1	0.0	28.4	0.0
1st-Term Q (Q1), veh/ln	4.4	0.0	2.2	0.0	1.3	0.0	3.8	0.0
2nd-Term Q (Q2), veh/ln	2.1	0.0	0.0	0.0	0.1	0.0	0.7	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	6.5	0.0	2.3	0.0	1.4	0.0	4.5	0.0
%ile Storage Ratio (RQ%)	1.64	0.00	0.19	0.00	0.22	0.00	0.38	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	3	0	3	0	3	0	3
Grp Vol (v), veh/h	0	1246	0	986	0	910	0	697
Grp Sat Flow (s), veh/h/ln	0	1702	0	1702	0	1702	0	1702
Q Serve Time (g_s), s	0.0	19.9	0.0	12.4	0.0	6.3	0.0	8.4
Cycle Q Clear Time (g_c), s	0.0	19.9	0.0	12.4	0.0	6.3	0.0	8.4
Lane Grp Cap (c), veh/h	0	1367	0	1437	0	1910	0	1277
V/C Ratio (X)	0.00	0.91	0.00	0.69	0.00	0.48	0.00	0.55
Avail Cap (c_a), veh/h	0	1367	0	1437	0	1910	0	1277
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.40
Uniform Delay (d1), s/veh	0.0	19.9	0.0	16.8	0.0	7.9	0.0	19.0
Incr Delay (d2), s/veh	0.0	10.7	0.0	1.4	0.0	0.9	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
Control Delay (d), s/veh	0.0	30.6	0.0	18.2	0.0	8.7	0.0	19.2
1st-Term Q (Q1), veh/ln	0.0	4.8	0.0	3.4	0.0	1.7	0.0	2.7
2nd-Term Q (Q2), veh/ln	0.0	1.4	0.0	0.2	0.0	0.2	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.2	0.0	3.6	0.0	1.8	0.0	2.7
%ile Storage Ratio (RQ%)	0.00	0.19	0.00	0.28	0.00	0.23	0.00	0.07
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	2	0	1
Grp Vol (v), veh/h	0	63	0	26	0	483	0	501
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1395	0	1585
Q Serve Time (g_s), s	0.0	1.8	0.0	0.7	0.0	4.8	0.0	22.5
Cycle Q Clear Time (g_c), s	0.0	1.8	0.0	0.7	0.0	4.8	0.0	22.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1394.8	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	10.9	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	424	0	446	0	1382	0	396
V/C Ratio (X)	0.00	0.15	0.00	0.06	0.00	0.35	0.00	1.26
Avail Cap (c_a), veh/h	0	424	0	446	0	1382	0	396
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.40
Uniform Delay (d1), s/veh	0.0	15.7	0.0	14.3	0.0	5.1	0.0	22.5
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.1	0.0	0.7	0.0	127.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.5	0.0	14.3	0.0	5.8	0.0	149.6
1st-Term Q (Q1), veh/ln	0.0	0.6	0.0	0.2	0.0	1.0	0.0	5.3
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	14.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.7	0.0	0.2	0.0	1.1	0.0	19.3
%ile Storage Ratio (RQ%)	0.00	0.11	0.00	0.09	0.00	0.15	0.00	0.49
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.2
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Intersection Summary

HCM 6th Ctrl Delay	33.6
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑	↗	↘	↑↑↑	↗	↘	↑↑	↗	↘	↑↑	↗
Traffic Volume (veh/h)	112	1249	319	255	951	112	324	432	204	96	294	98
Future Volume (veh/h)	112	1249	319	255	951	112	324	432	204	96	294	98
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	117	1301	332	266	991	117	338	450	212	100	306	102
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	302	1736	539	283	1907	592	409	1477	659	336	1093	358
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.06	0.34	0.34	0.09	0.37	0.37	0.42	0.42	0.42	0.42	0.42	0.42
Unsig. Movement Delay												
Ln Grp Delay, s/veh	18.9	27.7	26.2	59.2	22.1	19.2	42.8	18.0	18.7	25.4	18.3	18.4
Ln Grp LOS	B	C	C	E	C	B	D	B	B	C	B	B
Approach Vol, veh/h		1750			1374			1000			508	
Approach Delay, s/veh		26.8			29.1			26.5			19.8	
Approach LOS		C			C			C			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			5.0	1.1	3.0		6.0	1.1	3.0			
Phs Duration (G+Y+Rc), s			41.9	13.0	35.1		41.9	10.0	38.1			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			32.5	8.5	35.5		32.5	6.4	37.6			
Max Allow Headway (MAH), s			4.9	3.8	5.0		5.4	3.8	5.1			
Max Q Clear (g_c+I1), s			39.4	10.5	22.3		18.6	5.8	15.6			
Green Ext Time (g_e), s			0.0	0.0	8.3		2.7	0.0	7.9			
Prob of Phs Call (p_c)			1.00	1.00	1.00		1.00	0.95	1.00			
Prob of Max Out (p_x)			0.00	1.00	0.62		0.00	1.00	0.15			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			978	1781			773	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		5106		2632		5106			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		861		1585			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

HCM 6th Signalized Intersection Capacity Analysis

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Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	338	266	0	0	100	117	0
Grp Sat Flow (s), veh/h/ln	0	978	1781	0	0	773	1781	0
Q Serve Time (g_s), s	0.0	30.3	8.5	0.0	0.0	9.0	3.8	0.0
Cycle Q Clear Time (g_c), s	0.0	37.4	8.5	0.0	0.0	16.6	3.8	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	978	308	0	0	773	509	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	37.4	31.1	0.0	0.0	37.4	30.6	0.0
Perm LT Serve Time (g_u), s	0.0	30.3	10.3	0.0	0.0	29.8	20.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	30.3	10.3	0.0	0.0	9.0	3.2	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	409	283	0	0	336	302	0
V/C Ratio (X)	0.00	0.83	0.94	0.00	0.00	0.30	0.39	0.00
Avail Cap (c_a), veh/h	0	409	283	0	0	336	320	0
Upstream Filter (I)	0.00	0.70	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	30.2	22.0	0.0	0.0	23.1	18.1	0.0
Incr Delay (d2), s/veh	0.0	12.6	37.3	0.0	0.0	2.3	0.8	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	42.8	59.2	0.0	0.0	25.4	18.9	0.0
1st-Term Q (Q1), veh/ln	0.0	7.1	3.5	0.0	0.0	1.6	1.5	0.0
2nd-Term Q (Q2), veh/ln	0.0	1.4	2.9	0.0	0.0	0.2	0.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	8.5	6.4	0.0	0.0	1.8	1.6	0.0
%ile Storage Ratio (RQ%)	0.00	1.44	1.08	0.00	0.00	0.29	0.27	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	3	0	1	0	3
Grp Vol (v), veh/h	0	450	0	1301	0	205	0	991
Grp Sat Flow (s), veh/h/ln	0	1777	0	1702	0	1777	0	1702
Q Serve Time (g_s), s	0.0	7.6	0.0	20.3	0.0	6.8	0.0	13.6
Cycle Q Clear Time (g_c), s	0.0	7.6	0.0	20.3	0.0	6.8	0.0	13.6
Lane Grp Cap (c), veh/h	0	1477	0	1736	0	738	0	1907
V/C Ratio (X)	0.00	0.30	0.00	0.75	0.00	0.28	0.00	0.52
Avail Cap (c_a), veh/h	0	1477	0	2014	0	738	0	2133
Upstream Filter (I)	0.00	0.70	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	17.6	0.0	26.3	0.0	17.4	0.0	21.9
Incr Delay (d2), s/veh	0.0	0.4	0.0	1.4	0.0	0.9	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
Control Delay (d), s/veh	0.0	18.0	0.0	27.7	0.0	18.3	0.0	22.1
1st-Term Q (Q1), veh/ln	0.0	3.0	0.0	7.9	0.0	2.7	0.0	5.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.2	0.0	0.2	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.1	0.0	8.1	0.0	2.9	0.0	5.3
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.24	0.00	0.37	0.00	0.10
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		T+R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	212	0	332	0	203	0	117
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1715	0	1585
Q Serve Time (g_s), s	0.0	8.1	0.0	15.7	0.0	7.1	0.0	4.5
Cycle Q Clear Time (g_c), s	0.0	8.1	0.0	15.7	0.0	7.1	0.0	4.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.50	0.00	1.00
Lane Grp Cap (c), veh/h	0	659	0	539	0	713	0	592
V/C Ratio (X)	0.00	0.32	0.00	0.62	0.00	0.29	0.00	0.20
Avail Cap (c_a), veh/h	0	659	0	625	0	713	0	662
Upstream Filter (I)	0.00	0.70	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	17.7	0.0	24.8	0.0	17.4	0.0	19.1
Incr Delay (d2), s/veh	0.0	0.9	0.0	1.4	0.0	1.0	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.7	0.0	26.2	0.0	18.4	0.0	19.2
1st-Term Q (Q1), veh/ln	0.0	2.9	0.0	5.7	0.0	2.7	0.0	1.6
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.2	0.0	0.2	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.0	0.0	5.9	0.0	2.9	0.0	1.6
%ile Storage Ratio (RQ%)	0.00	0.51	0.00	0.17	0.00	0.37	0.00	0.03
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
























Intersection Summary

HCM 6th Ctrl Delay	26.6
HCM 6th LOS	C

Future Year (2045) Build

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

07/24/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	216	773	54	293	1331	174	22	445	578	274	603	494
Future Volume (veh/h)	216	773	54	293	1331	174	22	445	578	274	603	494
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	257	920	64	349	1585	207	26	530	688	326	718	588
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	235	1091	76	365	1409	793	175	850	379	295	1138	507
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.26	0.65	0.65	0.41	0.79	0.79	0.05	0.48	0.48	0.21	0.64	0.32
Unsig. Movement Delay												
Ln Grp Delay, s/veh	136.8	33.0	32.7	54.3	73.4	6.4	38.3	35.2	413.1	120.6	22.7	138.2
Ln Grp LOS	F	C	C	D	F	A	D	D	F	F	C	F
Approach Vol, veh/h		1241			2141			1244			1632	
Approach Delay, s/veh		54.4			63.8			244.3			83.9	
Approach LOS		D			E			F			F	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	3.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		19.0	38.0	33.2	49.8	7.7	49.3	23.0	60.0			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		14.5	33.5	29.3	44.7	5.0	43.0	18.5	55.5			
Max Allow Headway (MAH), s		3.7	4.3	3.7	4.9	3.7	4.5	3.7	4.8			
Max Q Clear (g_c+I1), s		16.5	35.5	28.6	31.7	3.5	46.8	20.5	57.5			
Green Ext Time (g_e), s		0.0	0.0	0.1	4.7	0.0	0.0	0.0	0.0			
Prob of Phs Call (p_c)		1.00	1.00	1.00	1.00	0.64	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.35	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3371		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		234		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

07/24/2020

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	326	0	349	0	26	0	257	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	14.5	0.0	26.6	0.0	1.5	0.0	18.5	0.0
Cycle Q Clear Time (g_c), s	14.5	0.0	26.6	0.0	1.5	0.0	18.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	458	0	0	0	421	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	35.5	0.0	0.0	0.0	33.5	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	18.0	0.0	0.0	0.0	27.7	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	18.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	295	0	365	0	175	0	235	0
V/C Ratio (X)	1.11	0.00	0.96	0.00	0.15	0.00	1.09	0.00
Avail Cap (c_a), veh/h	295	0	373	0	199	0	235	0
Upstream Filter (I)	0.94	0.00	0.24	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	38.3	0.0	40.7	0.0	37.9	0.0	51.5	0.0
Incr Delay (d2), s/veh	82.3	0.0	13.6	0.0	0.4	0.0	85.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	120.6	0.0	54.3	0.0	38.3	0.0	136.8	0.0
1st-Term Q (Q1), veh/ln	6.6	0.0	9.1	0.0	0.6	0.0	6.9	0.0
2nd-Term Q (Q2), veh/ln	6.7	0.0	1.4	0.0	0.0	0.0	5.6	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	13.3	0.0	10.5	0.0	0.7	0.0	12.5	0.0
%ile Storage Ratio (RQ%)	1.00	0.00	0.98	0.00	0.07	0.00	1.09	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	7.8	0.0	0.0	0.0	0.0	0.0	5.4	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	530	0	485	0	718	0	1585
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	15.5	0.0	29.7	0.0	17.1	0.0	55.5
Cycle Q Clear Time (g_c), s	0.0	15.5	0.0	29.7	0.0	17.1	0.0	55.5
Lane Grp Cap (c), veh/h	0	850	0	575	0	1138	0	1409
V/C Ratio (X)	0.00	0.62	0.00	0.84	0.00	0.63	0.00	1.13
Avail Cap (c_a), veh/h	0	850	0	575	0	1138	0	1409
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.94	0.00	0.24
Uniform Delay (d1), s/veh	0.0	31.8	0.0	21.9	0.0	20.2	0.0	14.5
Incr Delay (d2), s/veh	0.0	3.4	0.0	11.0	0.0	2.5	0.0	58.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	35.2	0.0	33.0	0.0	22.7	0.0	73.4
1st-Term Q (Q1), veh/ln	0.0	5.3	0.0	7.1	0.0	4.9	0.0	5.6
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	1.8	0.0	0.4	0.0	11.5

HCM 6th Signalized Intersection Capacity Analysis

1: Tapo Canyon Rd & E Los Angeles Ave

07/24/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.7	0.0	8.8	0.0	5.3	0.0	17.1
%ile Storage Ratio (RQ%)	0.00	0.54	0.00	0.28	0.00	1.76	0.00	0.44
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.1
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	688	0	499	0	588	0	207
Grp Sat Flow (s), veh/h/ln	0	1585	0	1828	0	1585	0	1585
Q Serve Time (g_s), s	0.0	33.5	0.0	29.7	0.0	44.8	0.0	4.2
Cycle Q Clear Time (g_c), s	0.0	33.5	0.0	29.7	0.0	44.8	0.0	4.2
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.5
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.13	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	379	0	592	0	507	0	793
V/C Ratio (X)	0.00	1.81	0.00	0.84	0.00	1.16	0.00	0.26
Avail Cap (c_a), veh/h	0	379	0	592	0	507	0	793
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.94	0.00	0.24
Uniform Delay (d1), s/veh	0.0	36.5	0.0	21.9	0.0	47.6	0.0	6.4
Incr Delay (d2), s/veh	0.0	376.6	0.0	10.7	0.0	90.6	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	413.1	0.0	32.7	0.0	138.2	0.0	6.4
1st-Term Q (Q1), veh/ln	0.0	9.6	0.0	7.3	0.0	17.1	0.0	1.2
2nd-Term Q (Q2), veh/ln	0.0	39.7	0.0	1.8	0.0	12.8	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	49.2	0.0	9.0	0.0	29.8	0.0	1.2
%ile Storage Ratio (RQ%)	0.00	8.34	0.00	0.29	0.00	2.23	0.00	0.19
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	77.2	0.0	0.0	0.0	20.1	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.5	0.0	0.0	0.0	0.3	0.0	0.0































Intersection Summary

HCM 6th Ctrl Delay	103.1
HCM 6th LOS	F

HCM 6th Signalized Intersection Capacity Analysis

2: Tapo St & E Los Angeles Ave

07/24/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	 
Traffic Volume (veh/h)	485	946	94	106	1274	288	30	58	50	248	174	472
Future Volume (veh/h)	485	946	94	106	1274	288	30	58	50	248	174	472
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	539	1051	104	118	1416	320	33	64	56	276	193	524
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	577	1918	190	140	1445	319	175	447	351	325	441	639
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.33	1.00	1.00	0.16	1.00	1.00	0.47	0.47	0.47	0.47	0.47	0.24
Unsig. Movement Delay												
Ln Grp Delay, s/veh	50.5	0.1	0.1	71.4	22.2	31.3	37.4	29.2	29.5	61.3	33.5	48.1
Ln Grp LOS	D	A	A	E	C	F	D	C	C	E	C	D
Approach Vol, veh/h		1694			1854			153			993	
Approach Delay, s/veh		16.1			29.7			31.1			48.9	
Approach LOS		B			C			C			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	2.0	4.0		5.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			37.1	15.4	85.5		37.1	27.5	73.4			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			32.5	17.5	75.0		32.5	23.6	68.9			
Max Allow Headway (MAH), s			5.4	3.7	4.9		4.2	3.7	5.0			
Max Q Clear (g_c+I1), s			16.0	10.9	2.0		34.6	22.8	70.9			
Green Ext Time (g_e), s			0.7	0.1	9.0		0.0	0.2	0.0			
Prob of Phs Call (p_c)			1.00	0.99	1.00		1.00	1.00	1.00			
Prob of Max Out (p_x)			0.00	0.05	0.00		0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			734	1781			1272	3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1894		3266		1870		2894			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1486		323		1585		639			
Left Lane Group Data												
Assigned Mvmt		0	5	3	0	0	1	7	0			
Lane Assignment			L	L (Prot)			L	L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis

2: Tapo St & E Los Angeles Ave

07/24/2020

Lanes in Grp	0	1	1	0	0	1	2	0
Grp Vol (v), veh/h	0	33	118	0	0	276	539	0
Grp Sat Flow (s), veh/h/ln	0	734	1781	0	0	1272	1728	0
Q Serve Time (g_s), s	0.0	4.5	8.9	0.0	0.0	29.6	20.8	0.0
Cycle Q Clear Time (g_c), s	0.0	14.0	8.9	0.0	0.0	32.6	20.8	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	734	0	0	0	1272	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	32.6	0.0	0.0	0.0	32.6	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	23.1	0.0	0.0	0.0	29.6	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	4.5	0.0	0.0	0.0	29.6	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	175	140	0	0	325	577	0
V/C Ratio (X)	0.00	0.19	0.84	0.00	0.00	0.85	0.93	0.00
Avail Cap (c_a), veh/h	0	175	226	0	0	325	591	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	1.00	0.16	0.00
Uniform Delay (d1), s/veh	0.0	35.0	57.3	0.0	0.0	38.1	45.2	0.0
Incr Delay (d2), s/veh	0.0	2.4	14.1	0.0	0.0	23.3	5.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	37.4	71.4	0.0	0.0	61.3	50.5	0.0
1st-Term Q (Q1), veh/ln	0.0	0.7	3.6	0.0	0.0	7.4	7.2	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.6	0.0	0.0	2.1	0.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.8	4.2	0.0	0.0	9.5	7.6	0.0
%ile Storage Ratio (RQ%)	0.00	0.31	0.76	0.00	0.00	2.41	0.75	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	60	0	571	0	193	0	857
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	2.6	0.0	0.0	0.0	9.5	0.0	2.7
Cycle Q Clear Time (g_c), s	0.0	2.6	0.0	0.0	0.0	9.5	0.0	2.7
Lane Grp Cap (c), veh/h	0	419	0	1043	0	441	0	887
V/C Ratio (X)	0.00	0.14	0.00	0.55	0.00	0.44	0.00	0.97
Avail Cap (c_a), veh/h	0	419	0	1043	0	441	0	887
Upstream Filter (I)	0.00	1.00	0.00	0.16	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	28.5	0.0	0.0	0.0	30.3	0.0	0.1
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.1	0.0	3.1	0.0	22.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	29.2	0.0	0.1	0.0	33.5	0.0	22.2
1st-Term Q (Q1), veh/ln	0.0	1.1	0.0	0.0	0.0	3.7	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.4	0.0	5.5

HCM 6th Signalized Intersection Capacity Analysis 2: Tapo St & E Los Angeles Ave

07/24/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.2	0.0	0.0	0.0	4.1	0.0	5.5
%ile Storage Ratio (RQ%)	0.00	0.13	0.00	0.00	0.00	1.06	0.00	0.35
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data













Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	60	0	584	0	524	0	879
Grp Sat Flow (s), veh/h/ln	0	1603	0	1812	0	1585	0	1755
Q Serve Time (g_s), s	0.0	3.0	0.0	0.0	0.0	32.6	0.0	68.9
Cycle Q Clear Time (g_c), s	0.0	3.0	0.0	0.0	0.0	32.6	0.0	68.9
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	23.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.93	0.00	0.18	0.00	1.00	0.00	0.36
Lane Grp Cap (c), veh/h	0	378	0	1064	0	639	0	876
V/C Ratio (X)	0.00	0.16	0.00	0.55	0.00	0.82	0.00	1.00
Avail Cap (c_a), veh/h	0	378	0	1064	0	639	0	876
Upstream Filter (I)	0.00	1.00	0.00	0.16	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	28.6	0.0	0.0	0.0	36.7	0.0	0.1
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.1	0.0	11.3	0.0	31.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	29.5	0.0	0.1	0.0	48.1	0.0	31.3
1st-Term Q (Q1), veh/ln	0.0	1.1	0.0	0.0	0.0	15.1	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	2.0	0.0	7.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.2	0.0	0.0	0.0	17.1	0.0	7.6
%ile Storage Ratio (RQ%)	0.00	0.13	0.00	0.00	0.00	4.35	0.00	0.49
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Intersection Summary

HCM 6th Ctrl Delay	28.9
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
3: E Los Angeles Ave

03/08/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (veh/h)	0	1208	0	0	1763	0	0	0	0	0	0	0
Future Volume (veh/h)	0	1208	0	0	1763	0	0	0	0	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	1357	0	0	1981	0	0	0	0	0	0	0
Peak Hour Factor	0.92	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	2177	0	0	2177	0	0	514	0	0	514	0
HCM Platoon Ratio	1.00	0.99	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.99	1.00
Prop Arrive On Green	0.00	0.61	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	11.3	0.0	0.0	21.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ln Grp LOS	A	B	A	A	C	A	A	A	A	A	A	A
Approach Vol, veh/h		1357			1981			0			0	
Approach Delay, s/veh		11.3			21.2			0.0			0.0	
Approach LOS		B			C							
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			53.5		26.5		53.5		26.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			49.0		22.0		49.0		22.0			
Max Allow Headway (MAH), s			4.9		0.0		4.9		0.0			
Max Q Clear (g_c+I1), s			21.3		0.0		41.3		0.0			
Green Ext Time (g_e), s			11.0		0.0		6.5		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3741		1870		3741		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis
 3: E Los Angeles Ave

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Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	49.0	0.0	22.0	0.0	49.0	0.0	22.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	1357	0	0	0	1981	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	19.3	0.0	0.0	0.0	39.3	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	19.3	0.0	0.0	0.0	39.3	0.0	0.0
Lane Grp Cap (c), veh/h	0	2177	0	514	0	2177	0	514
V/C Ratio (X)	0.00	0.62	0.00	0.00	0.00	0.91	0.00	0.00
Avail Cap (c_a), veh/h	0	2177	0	514	0	2177	0	514
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	9.9	0.0	0.0	0.0	14.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.4	0.0	0.0	0.0	7.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.3	0.0	0.0	0.0	21.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	5.7	0.0	0.0	0.0	11.8	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	2.2	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.1	0.0	0.0	0.0	13.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.56	0.00	0.00	0.00	4.02	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data













Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B

HCM 6th Signalized Intersection Capacity Analysis
4: Hlidden Ranch Dr

03/08/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	370	0	0	126	0
Future Volume (veh/h)	0	0	0	0	0	0	0	370	0	0	126	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	430	0	0	147	0
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	860	0	0	860	0	0	673	0	0	673	0
HCM Platoon Ratio	1.00	0.96	1.00	1.00	0.96	1.00	1.00	0.96	1.00	1.00	0.97	1.00
Prop Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.00	0.35	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.2	0.0	0.0	12.1	0.0
Ln Grp LOS	A	A	A	A	A	A	A	B	A	A	B	A
Approach Vol, veh/h		0			0			430			147	
Approach Delay, s/veh		0.0			0.0			18.2			12.1	
Approach LOS								B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			22.5		27.5		22.5		27.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			18.0		23.0		18.0		23.0			
Max Allow Headway (MAH), s			5.1		0.0		5.1		0.0			
Max Q Clear (g_c+I1), s			11.7		0.0		4.8		0.0			
Green Ext Time (g_e), s			1.3		0.0		0.5		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1870		1870		1870		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis

4: Hidden Ranch Dr

03/08/2021

Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	18.0	0.0	23.0	0.0	18.0	0.0	23.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	430	0	0	0	147	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	1870	0	1870	0	1870
Q Serve Time (g_s), s	0.0	9.7	0.0	0.0	0.0	2.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	9.7	0.0	0.0	0.0	2.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	673	0	860	0	673	0	860
V/C Ratio (X)	0.00	0.64	0.00	0.00	0.00	0.22	0.00	0.00
Avail Cap (c_a), veh/h	0	673	0	860	0	673	0	860
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	13.6	0.0	0.0	0.0	11.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	4.6	0.0	0.0	0.0	0.7	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
Control Delay (d), s/veh	0.0	18.2	0.0	0.0	0.0	12.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	3.3	0.0	0.0	0.0	0.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.9	0.0	0.0	0.0	0.1	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

4: Hidden Ranch Dr

03/08/2021

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.2	0.0	0.0	0.0	1.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	3.03	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	16.7
HCM 6th LOS	B

HCM 6th Signalized Intersection Capacity Analysis
5: Sequoia Ave & Cochran St

07/24/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	283	846	70	129	1156	185	133	653	72	154	465	395
Future Volume (veh/h)	283	846	70	129	1156	185	133	653	72	154	465	395
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	393	1175	69	179	1606	188	185	907	72	214	646	271
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	268	1096	489	268	1096	489	234	1278	101	260	935	392
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.17	0.62	0.62	0.17	0.62	0.62	0.77	0.77	0.77	0.77	0.77	0.38
Unsig. Movement Delay												
Ln Grp Delay, s/veh	245.7	60.3	8.3	20.0	226.1	9.1	38.1	11.5	11.3	29.9	8.7	15.1
Ln Grp LOS	F	F	A	B	F	A	D	B	B	C	A	B
Approach Vol, veh/h		1637			1973			1164			1131	
Approach Delay, s/veh		102.6			186.7			15.6			15.2	
Approach LOS		F			F			B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	1.1	3.0		6.0	1.1	3.0			
Phs Duration (G+Y+Rc), s			27.5	9.5	23.0		27.5	9.5	23.0			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			23.0	5.0	18.5		23.0	5.0	18.5			
Max Allow Headway (MAH), s			5.2	3.7	4.9		5.4	3.7	4.8			
Max Q Clear (g_c+I1), s			25.0	6.2	20.5		25.0	7.0	20.5			
Green Ext Time (g_e), s			0.0	0.0	0.0		0.0	0.0	0.0			
Prob of Phs Call (p_c)			1.00	0.95	1.00		1.00	1.00	1.00			
Prob of Max Out (p_x)			0.00	1.00	1.00		0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			609	1781			575	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3335		3554		2440		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			265		1585		1023		1585			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

HCM 6th Signalized Intersection Capacity Analysis

5: Sequoia Ave & Cochran St

07/24/2020

Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	185	179	0	0	214	393	0
Grp Sat Flow (s), veh/h/ln	0	609	1781	0	0	575	1781	0
Q Serve Time (g_s), s	0.0	11.3	4.2	0.0	0.0	14.7	5.0	0.0
Cycle Q Clear Time (g_c), s	0.0	23.0	4.2	0.0	0.0	23.0	5.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	609	447	0	0	575	263	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	23.0	18.5	0.0	0.0	23.0	18.5	0.0
Perm LT Serve Time (g_u), s	0.0	11.3	0.0	0.0	0.0	14.7	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	11.3	0.0	0.0	0.0	14.7	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	234	268	0	0	260	268	0
V/C Ratio (X)	0.00	0.79	0.67	0.00	0.00	0.82	1.46	0.00
Avail Cap (c_a), veh/h	0	234	268	0	0	260	268	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.61	1.00	0.00
Uniform Delay (d1), s/veh	0.0	15.0	13.8	0.0	0.0	13.7	17.6	0.0
Incr Delay (d2), s/veh	0.0	23.1	6.2	0.0	0.0	16.2	228.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	38.1	20.0	0.0	0.0	29.9	245.7	0.0
1st-Term Q (Q1), veh/ln	0.0	1.6	1.2	0.0	0.0	1.2	1.9	0.0
2nd-Term Q (Q2), veh/ln	0.0	1.5	0.5	0.0	0.0	1.2	17.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.1	1.6	0.0	0.0	2.4	18.9	0.0
%ile Storage Ratio (RQ%)	0.00	0.78	0.28	0.00	0.00	0.40	2.82	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	31.1	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	2
Grp Vol (v), veh/h	0	483	0	1175	0	470	0	1606
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	8.3	0.0	18.5	0.0	7.9	0.0	18.5
Cycle Q Clear Time (g_c), s	0.0	8.3	0.0	18.5	0.0	7.9	0.0	18.5
Lane Grp Cap (c), veh/h	0	681	0	1096	0	681	0	1096
V/C Ratio (X)	0.00	0.71	0.00	1.07	0.00	0.69	0.00	1.47
Avail Cap (c_a), veh/h	0	681	0	1096	0	681	0	1096
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.61	0.00	1.00
Uniform Delay (d1), s/veh	0.0	5.3	0.0	11.5	0.0	5.2	0.0	11.5
Incr Delay (d2), s/veh	0.0	6.2	0.0	48.8	0.0	3.5	0.0	214.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.5	0.0	60.3	0.0	8.7	0.0	226.1
1st-Term Q (Q1), veh/ln	0.0	1.4	0.0	2.9	0.0	1.3	0.0	2.9
2nd-Term Q (Q2), veh/ln	0.0	1.2	0.0	7.4	0.0	0.7	0.0	32.7

HCM 6th Signalized Intersection Capacity Analysis
5: Sequoia Ave & Cochran St

07/24/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.5	0.0	10.3	0.0	2.0	0.0	35.6
%ile Storage Ratio (RQ%)	0.00	0.27	0.00	0.18	0.00	0.04	0.00	0.83
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	19.8	0.0	0.0	0.0	127.6
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.4

Right Lane Group Data

























Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		R		T+R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	496	0	69	0	447	0	188
Grp Sat Flow (s), veh/h/ln	0	1823	0	1585	0	1686	0	1585
Q Serve Time (g_s), s	0.0	8.3	0.0	1.1	0.0	11.7	0.0	3.6
Cycle Q Clear Time (g_c), s	0.0	8.3	0.0	1.1	0.0	11.7	0.0	3.6
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.15	0.00	1.00	0.00	0.61	0.00	1.00
Lane Grp Cap (c), veh/h	0	699	0	489	0	646	0	489
V/C Ratio (X)	0.00	0.71	0.00	0.14	0.00	0.69	0.00	0.38
Avail Cap (c_a), veh/h	0	699	0	489	0	646	0	489
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.61	0.00	1.00
Uniform Delay (d1), s/veh	0.0	5.3	0.0	8.2	0.0	11.4	0.0	8.6
Incr Delay (d2), s/veh	0.0	6.0	0.0	0.1	0.0	3.7	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
Control Delay (d), s/veh	0.0	11.3	0.0	8.3	0.0	15.1	0.0	9.1
1st-Term Q (Q1), veh/ln	0.0	1.4	0.0	0.3	0.0	2.8	0.0	0.9
2nd-Term Q (Q2), veh/ln	0.0	1.2	0.0	0.0	0.0	0.7	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	2.6	0.0	0.3	0.0	3.5	0.0	1.0
%ile Storage Ratio (RQ%)	0.00	0.27	0.00	0.06	0.00	0.08	0.00	0.16
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	96.8
HCM 6th LOS	F

HCM 6th Signalized Intersection Capacity Analysis
6: Tapo Canyon Rd & Cochran St

07/24/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	655	616	121	157	625	468	82	820	98	334	1102	509
Future Volume (veh/h)	655	616	121	157	625	468	82	820	98	334	1102	509
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	780	733	144	187	744	438	98	976	57	398	1312	368
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	543	1320	589	375	727	324	150	953	425	330	1138	933
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.54	0.74	0.74	0.20	0.41	0.41	0.09	0.54	0.54	0.19	0.64	0.32
Unsig. Movement Delay												
Ln Grp Delay, s/veh	223.6	10.7	9.5	26.7	58.7	197.8	58.3	60.9	19.8	162.5	98.9	13.4
Ln Grp LOS	F	B	A	C	F	F	E	F	B	F	F	B
Approach Vol, veh/h		1657			1369			1131			2078	
Approach Delay, s/veh		110.8			98.8			58.6			95.9	
Approach LOS		F			F			E			F	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		2.0	3.0	1.1	3.0	2.0	3.0	1.1	3.0			
Phs Duration (G+Y+Rc), s		15.0	34.0	15.6	45.4	9.3	39.7	34.0	27.0			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		10.5	29.5	14.6	37.4	5.0	35.0	29.5	22.5			
Max Allow Headway (MAH), s		3.8	5.2	3.8	5.1	3.8	5.0	3.8	4.8			
Max Q Clear (g_c+I1), s		12.5	31.5	11.0	11.9	5.0	37.2	31.5	24.5			
Green Ext Time (g_e), s		0.0	0.0	0.2	6.1	0.0	0.0	0.0	0.0			
Prob of Phs Call (p_c)		1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.04	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		3456		1781		3456		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Prot)		L (Pr/Pm)		L (Prot)		L (Pr/Pm)				

HCM 6th Signalized Intersection Capacity Analysis
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Lanes in Grp	2	0	1	0	2	0	1	0
Grp Vol (v), veh/h	398	0	187	0	98	0	780	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	1781	0
Q Serve Time (g_s), s	10.5	0.0	9.0	0.0	3.0	0.0	29.5	0.0
Cycle Q Clear Time (g_c), s	10.5	0.0	9.0	0.0	3.0	0.0	29.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	632	0	0	0	474	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	22.5	0.0	0.0	0.0	24.5	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	22.5	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	330	0	375	0	150	0	543	0
V/C Ratio (X)	1.21	0.00	0.50	0.00	0.65	0.00	1.44	0.00
Avail Cap (c_a), veh/h	330	0	431	0	157	0	543	0
Upstream Filter (I)	1.00	0.00	0.36	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	44.5	0.0	26.3	0.0	49.4	0.0	17.0	0.0
Incr Delay (d2), s/veh	118.0	0.0	0.4	0.0	8.8	0.0	206.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	162.5	0.0	26.7	0.0	58.3	0.0	223.6	0.0
1st-Term Q (Q1), veh/ln	4.0	0.0	3.3	0.0	1.3	0.0	6.5	0.0
2nd-Term Q (Q2), veh/ln	5.4	0.0	0.0	0.0	0.2	0.0	31.2	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	9.4	0.0	3.4	0.0	1.5	0.0	37.7	0.0
%ile Storage Ratio (RQ%)	2.39	0.00	0.29	0.00	0.23	0.00	3.19	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	17.0	0.0	0.0	0.0	0.0	0.0	59.2	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.3	0.0	0.0	0.0	0.0	0.0	0.4	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	2	0	2
Grp Vol (v), veh/h	0	976	0	733	0	1312	0	744
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	29.5	0.0	9.9	0.0	35.2	0.0	22.5
Cycle Q Clear Time (g_c), s	0.0	29.5	0.0	9.9	0.0	35.2	0.0	22.5
Lane Grp Cap (c), veh/h	0	953	0	1320	0	1138	0	727
V/C Ratio (X)	0.00	1.02	0.00	0.56	0.00	1.15	0.00	1.02
Avail Cap (c_a), veh/h	0	953	0	1320	0	1138	0	727
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.36
Uniform Delay (d1), s/veh	0.0	25.5	0.0	10.2	0.0	19.8	0.0	32.5
Incr Delay (d2), s/veh	0.0	35.4	0.0	0.5	0.0	79.1	0.0	26.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	60.9	0.0	10.7	0.0	98.9	0.0	58.7
1st-Term Q (Q1), veh/ln	0.0	8.6	0.0	2.7	0.0	8.2	0.0	7.6
2nd-Term Q (Q2), veh/ln	0.0	4.7	0.0	0.1	0.0	12.5	0.0	2.6

HCM 6th Signalized Intersection Capacity Analysis

6: Tapo Canyon Rd & Cochran St

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	13.3	0.0	2.8	0.0	20.7	0.0	10.2
%ile Storage Ratio (RQ%)	0.00	0.84	0.00	0.10	0.00	2.46	0.00	0.25
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	5.7	0.0	0.0	0.0	43.5	0.0	4.3
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.3

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	57	0	144	0	368	0	438
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	2.0	0.0	3.1	0.0	13.7	0.0	22.5
Cycle Q Clear Time (g_c), s	0.0	2.0	0.0	3.1	0.0	13.7	0.0	22.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	29.5	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	425	0	589	0	933	0	324
V/C Ratio (X)	0.00	0.13	0.00	0.24	0.00	0.39	0.00	1.35
Avail Cap (c_a), veh/h	0	425	0	589	0	933	0	324
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.36
Uniform Delay (d1), s/veh	0.0	19.1	0.0	9.3	0.0	12.1	0.0	32.5
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.2	0.0	1.3	0.0	165.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.8	0.0	9.5	0.0	13.4	0.0	197.8
1st-Term Q (Q1), veh/ln	0.0	0.7	0.0	1.0	0.0	4.6	0.0	6.7
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.3	0.0	14.9
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.8	0.0	1.0	0.0	5.0	0.0	21.6
%ile Storage Ratio (RQ%)	0.00	0.13	0.00	0.37	0.00	0.63	0.00	0.54
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.4
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Intersection Summary

HCM 6th Ctrl Delay	93.7
HCM 6th LOS	F

HCM 6th Signalized Intersection Capacity Analysis
7: Tapo St & Cochran St

07/24/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	526	183	231	470	195	133	386	115	280	553	247
Future Volume (veh/h)	314	526	183	231	470	195	133	386	115	280	553	247
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	374	626	158	275	560	172	158	460	77	333	658	175
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	390	737	186	356	617	189	311	782	130	445	856	228
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Prop Arrive On Green	0.30	0.52	0.52	0.24	0.46	0.46	0.14	0.51	0.51	0.25	0.62	0.62
Unsig. Movement Delay												
Ln Grp Delay, s/veh	43.5	24.7	25.0	28.2	41.6	42.9	19.3	20.9	21.1	24.0	22.4	22.6
Ln Grp LOS	D	C	C	C	D	D	B	C	C	C	C	C
Approach Vol, veh/h		1158			1007			695			1166	
Approach Delay, s/veh		30.9			38.4			20.6			22.9	
Approach LOS		C			D			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		13.7	23.7	13.4	24.2	9.8	27.6	15.8	21.8			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		9.2	18.5	8.9	20.4	5.3	22.4	11.3	18.0			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	5.3	3.8	5.3			
Max Q Clear (g_c+I1), s		11.2	10.0	10.9	16.4	7.0	15.0	13.3	16.6			
Green Ext Time (g_e), s		0.0	2.1	0.0	1.8	0.0	3.1	0.0	0.7			
Prob of Phs Call (p_c)		1.00	1.00	1.00	1.00	0.96	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3048		2811		2777		2679			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			507		708		738		820			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)				

HCM 6th Signalized Intersection Capacity Analysis
7: Tapo St & Cochran St

07/24/2020

Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	333	0	275	0	158	0	374	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	9.2	0.0	8.9	0.0	5.0	0.0	11.3	0.0
Cycle Q Clear Time (g_c), s	9.2	0.0	8.9	0.0	5.0	0.0	11.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	868	0	690	0	659	0	724	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	20.6	0.0	17.3	0.0	19.2	0.0	17.3	0.0
Perm LT Serve Time (g_u), s	11.3	0.0	5.3	0.0	10.2	0.0	2.7	0.0
Perm LT Q Serve Time (g_ps), s	9.2	0.0	5.3	0.0	2.6	0.0	2.7	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	445	0	356	0	311	0	390	0
V/C Ratio (X)	0.75	0.00	0.77	0.00	0.51	0.00	0.96	0.00
Avail Cap (c_a), veh/h	445	0	356	0	311	0	390	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.59	0.00
Uniform Delay (d1), s/veh	17.1	0.0	18.2	0.0	17.9	0.0	18.4	0.0
Incr Delay (d2), s/veh	6.9	0.0	10.0	0.0	1.4	0.0	25.1	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	24.0	0.0	28.2	0.0	19.3	0.0	43.5	0.0
1st-Term Q (Q1), veh/ln	3.3	0.0	2.9	0.0	1.8	0.0	3.7	0.0
2nd-Term Q (Q2), veh/ln	0.8	0.0	1.0	0.0	0.1	0.0	2.7	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	4.1	0.0	3.9	0.0	1.9	0.0	6.4	0.0
%ile Storage Ratio (RQ%)	0.87	0.00	0.83	0.00	0.34	0.00	1.36	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	267	0	395	0	421	0	371
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	7.9	0.0	14.3	0.0	12.9	0.0	14.5
Cycle Q Clear Time (g_c), s	0.0	7.9	0.0	14.3	0.0	12.9	0.0	14.5
Lane Grp Cap (c), veh/h	0	456	0	466	0	548	0	409
V/C Ratio (X)	0.00	0.59	0.00	0.85	0.00	0.77	0.00	0.91
Avail Cap (c_a), veh/h	0	456	0	483	0	548	0	426
Upstream Filter (I)	0.00	1.00	0.00	0.59	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.5	0.0	16.5	0.0	12.4	0.0	19.5
Incr Delay (d2), s/veh	0.0	5.4	0.0	8.1	0.0	9.9	0.0	22.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.9	0.0	24.7	0.0	22.4	0.0	41.6
1st-Term Q (Q1), veh/ln	0.0	2.4	0.0	3.7	0.0	3.1	0.0	4.0
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	1.1	0.0	1.5	0.0	2.5

HCM 6th Signalized Intersection Capacity Analysis
 7: Tapo St & Cochran St

07/24/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.1	0.0	4.8	0.0	4.6	0.0	6.5
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.12	0.00	0.35	0.00	0.10
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	270	0	389	0	412	0	361
Grp Sat Flow (s), veh/h/ln	0	1779	0	1743	0	1738	0	1723
Q Serve Time (g_s), s	0.0	8.0	0.0	14.4	0.0	13.0	0.0	14.6
Cycle Q Clear Time (g_c), s	0.0	8.0	0.0	14.4	0.0	13.0	0.0	14.6
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.29	0.00	0.41	0.00	0.42	0.00	0.48
Lane Grp Cap (c), veh/h	0	456	0	457	0	536	0	397
V/C Ratio (X)	0.00	0.59	0.00	0.85	0.00	0.77	0.00	0.91
Avail Cap (c_a), veh/h	0	456	0	474	0	536	0	413
Upstream Filter (I)	0.00	1.00	0.00	0.59	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.5	0.0	16.6	0.0	12.4	0.0	19.5
Incr Delay (d2), s/veh	0.0	5.6	0.0	8.4	0.0	10.2	0.0	23.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	21.1	0.0	25.0	0.0	22.6	0.0	42.9
1st-Term Q (Q1), veh/ln	0.0	2.5	0.0	3.7	0.0	3.0	0.0	3.9
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	1.1	0.0	1.5	0.0	2.6
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.2	0.0	4.7	0.0	4.5	0.0	6.5
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.12	0.00	0.35	0.00	0.10
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis
8: Sequoia Ave & Cochran St

07/24/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	658	157	254	868	131	277	414	419	169	450	79
Future Volume (veh/h)	59	658	157	254	868	131	277	414	419	169	450	79
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	84	940	153	363	1240	116	396	591	456	241	643	113
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	115	776	126	261	1103	103	396	1891	843	338	1608	282
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.07	0.51	0.51	0.24	0.67	0.67	1.00	1.00	1.00	1.00	1.00	0.53
Unsig. Movement Delay												
Ln Grp Delay, s/veh	60.9	148.6	148.9	231.8	98.1	99.7	35.4	0.2	0.9	12.1	1.3	6.3
Ln Grp LOS	E	F	F	F	F	F	D	A	A	B	A	A
Approach Vol, veh/h		1177			1719			1443			997	
Approach Delay, s/veh		142.5			127.0			10.1			5.8	
Approach LOS		F			F			B			A	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			5.0	1.1	4.0		6.0	1.1	4.0			
Phs Duration (G+Y+Rc), s			79.0	21.0	40.0		79.0	9.5	51.5			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			74.5	16.5	35.5		74.5	5.0	47.0			
Max Allow Headway (MAH), s			5.1	3.8	5.3		5.9	3.8	5.3			
Max Q Clear (g_c+I1), s			76.5	18.5	37.5		8.4	7.0	49.0			
Green Ext Time (g_e), s			0.0	0.0	0.0		10.5	0.0	0.0			
Prob of Phs Call (p_c)			1.00	1.00	1.00		1.00	0.96	1.00			
Prob of Max Out (p_x)			0.00	1.00	1.00		0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			708	1781			539	1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3060		3022		3285			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		498		530		307			
Left Lane Group Data												
Assigned Mvmt	0	5	3	0	0	1	7	0				
Lane Assignment		LL (Pr/Pm)					LL (Pr/Pm)					

HCM 6th Signalized Intersection Capacity Analysis

8: Sequoia Ave & Cochran St

07/24/2020

Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	396	363	0	0	241	84	0
Grp Sat Flow (s), veh/h/ln	0	708	1781	0	0	539	1781	0
Q Serve Time (g_s), s	0.0	68.1	16.5	0.0	0.0	0.0	5.0	0.0
Cycle Q Clear Time (g_c), s	0.0	74.5	16.5	0.0	0.0	0.0	5.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	708	516	0	0	539	402	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	74.5	37.5	0.0	0.0	74.5	35.5	0.0
Perm LT Serve Time (g_u), s	0.0	68.1	0.0	0.0	0.0	74.5	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	68.1	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	396	261	0	0	338	115	0
V/C Ratio (X)	0.00	1.00	1.39	0.00	0.00	0.71	0.73	0.00
Avail Cap (c_a), veh/h	0	396	261	0	0	338	115	0
Upstream Filter (I)	0.00	0.38	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	7.6	35.0	0.0	0.0	0.0	40.1	0.0
Incr Delay (d2), s/veh	0.0	27.8	196.8	0.0	0.0	12.1	20.8	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	35.4	231.8	0.0	0.0	12.1	60.9	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	5.5	0.0	0.0	0.0	2.1	0.0
2nd-Term Q (Q2), veh/ln	0.0	3.1	14.3	0.0	0.0	1.1	0.7	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	3.1	19.8	0.0	0.0	1.1	2.8	0.0
%ile Storage Ratio (RQ%)	0.00	0.52	3.35	0.00	0.00	0.18	0.47	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	25.4	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	591	0	546	0	378	0	669
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	35.5	0.0	0.0	0.0	47.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	35.5	0.0	0.0	0.0	47.0
Lane Grp Cap (c), veh/h	0	1891	0	451	0	946	0	597
V/C Ratio (X)	0.00	0.31	0.00	1.21	0.00	0.40	0.00	1.12
Avail Cap (c_a), veh/h	0	1891	0	451	0	946	0	597
Upstream Filter (I)	0.00	0.38	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	34.5	0.0	0.0	0.0	23.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	114.1	0.0	1.3	0.0	75.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.2	0.0	148.6	0.0	1.3	0.0	98.1
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	12.2	0.0	0.0	0.0	12.7
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	14.3	0.0	0.3	0.0	12.4

HCM 6th Signalized Intersection Capacity Analysis
 8: Sequoia Ave & Cochran St

07/24/2020

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	26.5	0.0	0.3	0.0	25.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.77	0.00	0.04	0.00	0.56
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	23.8	0.0	0.0	0.0	18.2
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3

Right Lane Group Data
























Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	456	0	547	0	378	0	687
Grp Sat Flow (s), veh/h/ln	0	1585	0	1781	0	1775	0	1815
Q Serve Time (g_s), s	0.0	0.0	0.0	35.5	0.0	6.4	0.0	47.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	35.5	0.0	6.4	0.0	47.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.28	0.00	0.30	0.00	0.17
Lane Grp Cap (c), veh/h	0	843	0	452	0	945	0	609
V/C Ratio (X)	0.00	0.54	0.00	1.21	0.00	0.40	0.00	1.13
Avail Cap (c_a), veh/h	0	843	0	452	0	945	0	609
Upstream Filter (I)	0.00	0.38	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	34.5	0.0	5.0	0.0	23.0
Incr Delay (d2), s/veh	0.0	0.9	0.0	114.4	0.0	1.3	0.0	76.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.9	0.0	148.9	0.0	6.3	0.0	99.7
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	12.2	0.0	1.8	0.0	13.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	14.4	0.0	0.3	0.0	13.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	26.6	0.0	2.2	0.0	25.9
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.77	0.00	0.27	0.00	0.58
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	23.9	0.0	0.0	0.0	19.4
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3

Intersection Summary

HCM 6th Ctrl Delay	76.1
HCM 6th LOS	E

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

07/23/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	416	1238	11	280	1048	240	48	668	609	243	324	316
Future Volume (veh/h)	416	1238	11	280	1048	240	48	668	609	243	324	316
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	438	1303	12	295	1103	253	51	703	641	256	341	333
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	419	1312	12	299	1053	641	284	825	368	261	1098	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.24	0.36	0.36	0.17	0.30	0.30	0.03	0.23	0.23	0.11	0.31	0.31
Unsig. Movement Delay												
Ln Grp Delay, s/veh	110.2	78.0	77.2	84.6	79.3	29.7	39.4	62.3	398.8	88.0	37.7	49.6
Ln Grp LOS	F	E	E	F	F	C	D	E	F	F	D	D
Approach Vol, veh/h		1753			1651			1395			930	
Approach Delay, s/veh		85.7			72.6			216.1			55.8	
Approach LOS		F			E			F			E	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	3.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		19.6	37.0	28.0	55.4	8.8	47.8	37.4	46.0			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		15.1	32.5	23.5	50.9	5.1	42.5	32.9	41.5			
Max Allow Headway (MAH), s		3.7	4.4	3.7	4.9	3.7	4.4	3.7	4.7			
Max Q Clear (g_c+I1), s		17.1	34.5	25.1	52.4	5.0	27.7	34.9	43.5			
Green Ext Time (g_e), s		0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0			
Prob of Phs Call (p_c)		1.00	1.00	1.00	1.00	0.86	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3608		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		33		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis
 1: Tapo Canyon Rd & E Los Angeles Ave

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	256	0	295	0	51	0	438	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	15.1	0.0	23.1	0.0	3.0	0.0	32.9	0.0
Cycle Q Clear Time (g_c), s	15.1	0.0	23.1	0.0	3.0	0.0	32.9	0.0
Perm LT Sat Flow (s_l), veh/h/ln	406	0	0	0	764	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	34.5	0.0	0.0	0.0	32.5	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	6.0	0.0	0.0	0.0	32.5	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	261	0	299	0	284	0	419	0
V/C Ratio (X)	0.98	0.00	0.99	0.00	0.18	0.00	1.05	0.00
Avail Cap (c_a), veh/h	261	0	299	0	294	0	419	0
Upstream Filter (I)	0.98	0.00	0.33	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	38.2	0.0	58.1	0.0	39.1	0.0	53.6	0.0
Incr Delay (d2), s/veh	49.7	0.0	26.5	0.0	0.3	0.0	56.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	88.0	0.0	84.6	0.0	39.4	0.0	110.2	0.0
1st-Term Q (Q1), veh/ln	6.4	0.0	10.2	0.0	1.3	0.0	14.3	0.0
2nd-Term Q (Q2), veh/ln	3.6	0.0	2.2	0.0	0.0	0.0	6.6	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	10.0	0.0	12.4	0.0	1.3	0.0	20.9	0.0
%ile Storage Ratio (RQ%)	0.75	0.00	1.16	0.00	0.14	0.00	1.83	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	2
Grp Vol (v), veh/h	0	703	0	642	0	341	0	1103
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	26.5	0.0	50.4	0.0	10.3	0.0	41.5
Cycle Q Clear Time (g_c), s	0.0	26.5	0.0	50.4	0.0	10.3	0.0	41.5
Lane Grp Cap (c), veh/h	0	825	0	646	0	1098	0	1053
V/C Ratio (X)	0.00	0.85	0.00	0.99	0.00	0.31	0.00	1.05
Avail Cap (c_a), veh/h	0	825	0	646	0	1098	0	1053
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.98	0.00	0.33
Uniform Delay (d1), s/veh	0.0	51.5	0.0	44.4	0.0	37.0	0.0	49.3
Incr Delay (d2), s/veh	0.0	10.8	0.0	33.6	0.0	0.7	0.0	30.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	62.3	0.0	78.0	0.0	37.7	0.0	79.3
1st-Term Q (Q1), veh/ln	0.0	11.5	0.0	21.3	0.0	4.4	0.0	17.8
2nd-Term Q (Q2), veh/ln	0.0	1.2	0.0	6.0	0.0	0.1	0.0	4.4

HCM 6th Signalized Intersection Capacity Analysis

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	12.8	0.0	27.3	0.0	4.5	0.0	22.2
%ile Storage Ratio (RQ%)	0.00	1.22	0.00	0.88	0.00	1.51	0.00	0.58
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.4
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Right Lane Group Data































Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	641	0	673	0	333	0	253
Grp Sat Flow (s), veh/h/ln	0	1585	0	1864	0	1585	0	1585
Q Serve Time (g_s), s	0.0	32.5	0.0	50.4	0.0	25.7	0.0	15.8
Cycle Q Clear Time (g_c), s	0.0	32.5	0.0	50.4	0.0	25.7	0.0	15.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1585.1
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.1
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.02	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	368	0	678	0	490	0	641
V/C Ratio (X)	0.00	1.74	0.00	0.99	0.00	0.68	0.00	0.39
Avail Cap (c_a), veh/h	0	368	0	678	0	490	0	641
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.98	0.00	0.33
Uniform Delay (d1), s/veh	0.0	53.8	0.0	44.4	0.0	42.3	0.0	29.6
Incr Delay (d2), s/veh	0.0	345.0	0.0	32.9	0.0	7.3	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	398.8	0.0	77.2	0.0	49.6	0.0	29.7
1st-Term Q (Q1), veh/ln	0.0	12.6	0.0	22.3	0.0	9.8	0.0	5.9
2nd-Term Q (Q2), veh/ln	0.0	35.3	0.0	6.2	0.0	1.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	47.9	0.0	28.5	0.0	10.8	0.0	5.9
%ile Storage Ratio (RQ%)	0.00	8.11	0.00	0.92	0.00	0.81	0.00	0.94
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	68.3	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	108.8
HCM 6th LOS	F

HCM 6th Signalized Intersection Capacity Analysis
2: Tapo St & E Los Angeles Ave

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 	 		 	 	 
Traffic Volume (veh/h)	598	1401	70	56	934	323	92	123	120	296	68	508
Future Volume (veh/h)	598	1401	70	56	934	323	92	123	120	296	68	508
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	643	1506	75	60	1004	347	99	132	129	318	73	546
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	667	1788	89	77	958	328	302	538	480	368	567	786
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.39	1.00	1.00	0.09	0.74	0.74	0.61	0.61	0.61	0.61	0.61	0.30
Unsig. Movement Delay												
Ln Grp Delay, s/veh	35.1	0.7	0.7	64.3	60.0	64.9	18.8	15.5	15.9	44.8	14.5	24.3
Ln Grp LOS	D	A	A	E	F	F	B	B	B	D	B	C
Approach Vol, veh/h		2224			1411			360			937	
Approach Delay, s/veh		10.6			62.5			16.5			30.5	
Approach LOS		B			E			B			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			6.0	2.0	4.0		5.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			34.8	8.8	56.4		34.8	23.8	41.4			
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5			
Max Green (Gmax), s			30.3	6.3	49.9		30.3	19.3	36.9			
Max Allow Headway (MAH), s			5.3	3.7	4.9		4.2	3.7	5.0			
Max Q Clear (g_c+I1), s			10.6	5.3	2.0		32.3	20.2	38.9			
Green Ext Time (g_e), s			2.0	0.0	15.4		0.0	0.0	0.0			
Prob of Phs Call (p_c)			1.00	0.81	1.00		1.00	1.00	1.00			
Prob of Max Out (p_x)			0.00	1.00	0.12		0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			804	1781			1118	3456				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1777		3445		1870		2597			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		171		1585		890			
Left Lane Group Data												
Assigned Mvmt		0	5	3	0	0	1	7	0			
Lane Assignment			L	L (Prot)			L	L (Prot)				

HCM 6th Signalized Intersection Capacity Analysis 2: Tapo St & E Los Angeles Ave

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Lanes in Grp	0	1	1	0	0	1	2	0
Grp Vol (v), veh/h	0	99	60	0	0	318	643	0
Grp Sat Flow (s), veh/h/ln	0	804	1781	0	0	1118	1728	0
Q Serve Time (g_s), s	0.0	7.0	3.3	0.0	0.0	26.5	18.2	0.0
Cycle Q Clear Time (g_c), s	0.0	8.6	3.3	0.0	0.0	30.3	18.2	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	804	0	0	0	1118	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	30.3	0.0	0.0	0.0	30.3	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	28.6	0.0	0.0	0.0	26.5	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	7.0	0.0	0.0	0.0	26.5	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	302	77	0	0	368	667	0
V/C Ratio (X)	0.00	0.33	0.78	0.00	0.00	0.86	0.96	0.00
Avail Cap (c_a), veh/h	0	302	112	0	0	368	667	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.98	0.09	0.00
Uniform Delay (d1), s/veh	0.0	15.9	45.2	0.0	0.0	22.5	30.4	0.0
Incr Delay (d2), s/veh	0.0	2.9	19.1	0.0	0.0	22.3	4.8	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.8	64.3	0.0	0.0	44.8	35.1	0.0
1st-Term Q (Q1), veh/ln	0.0	1.0	1.4	0.0	0.0	4.7	5.4	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.4	0.0	0.0	2.3	0.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.2	1.8	0.0	0.0	7.0	5.8	0.0
%ile Storage Ratio (RQ%)	0.00	0.48	0.32	0.00	0.00	1.78	0.57	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	132	0	774	0	73	0	684
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	3.4	0.0	0.0	0.0	1.7	0.0	36.9
Cycle Q Clear Time (g_c), s	0.0	3.4	0.0	0.0	0.0	1.7	0.0	36.9
Lane Grp Cap (c), veh/h	0	538	0	922	0	567	0	656
V/C Ratio (X)	0.00	0.25	0.00	0.84	0.00	0.13	0.00	1.04
Avail Cap (c_a), veh/h	0	538	0	922	0	567	0	656
Upstream Filter (I)	0.00	1.00	0.00	0.09	0.00	0.98	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.4	0.0	0.0	0.0	14.1	0.0	13.1
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.7	0.0	0.5	0.0	46.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.5	0.0	0.7	0.0	14.5	0.0	60.0
1st-Term Q (Q1), veh/ln	0.0	1.2	0.0	0.0	0.0	0.7	0.0	4.5
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.2	0.0	0.1	0.0	8.5

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.4	0.0	0.2	0.0	0.7	0.0	13.0
%ile Storage Ratio (RQ%)	0.00	0.15	0.00	0.00	0.00	0.19	0.00	0.83
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	129	0	807	0	546	0	667
Grp Sat Flow (s), veh/h/ln	0	1585	0	1840	0	1585	0	1710
Q Serve Time (g_s), s	0.0	3.8	0.0	0.0	0.0	26.5	0.0	36.9
Cycle Q Clear Time (g_c), s	0.0	3.8	0.0	0.0	0.0	26.5	0.0	36.9
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	19.3	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.09	0.00	1.00	0.00	0.52
Lane Grp Cap (c), veh/h	0	480	0	955	0	786	0	631
V/C Ratio (X)	0.00	0.27	0.00	0.85	0.00	0.69	0.00	1.06
Avail Cap (c_a), veh/h	0	480	0	955	0	786	0	631
Upstream Filter (I)	0.00	1.00	0.00	0.09	0.00	0.98	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.5	0.0	0.0	0.0	19.4	0.0	13.1
Incr Delay (d2), s/veh	0.0	1.4	0.0	0.7	0.0	4.9	0.0	51.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.9	0.0	0.7	0.0	24.3	0.0	64.9
1st-Term Q (Q1), veh/ln	0.0	1.2	0.0	0.0	0.0	8.7	0.0	4.3
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.2	0.0	1.1	0.0	9.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.4	0.0	0.2	0.0	9.8	0.0	13.4
%ile Storage Ratio (RQ%)	0.00	0.15	0.00	0.00	0.00	2.48	0.00	0.86
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Intersection Summary

HCM 6th Ctrl Delay	29.7
HCM 6th LOS	C

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

03/08/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Volume (veh/h)	0	1881	0	0	1284	0	0	0	0	0	0	0
Future Volume (veh/h)	0	1881	0	0	1284	0	0	0	0	0	0	0
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	2023	0	0	1381	0	0	0	0	0	0	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	2177	0	0	2177	0	0	514	0	0	514	0
HCM Platoon Ratio	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00
Prop Arrive On Green	0.00	0.60	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	23.0	0.0	0.0	11.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ln Grp LOS	A	C	A	A	B	A	A	A	A	A	A	A
Approach Vol, veh/h		2023			1381			0			0	
Approach Delay, s/veh		23.0			11.6			0.0			0.0	
Approach LOS		C			B							
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			53.5		26.5		53.5		26.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			49.0		22.0		49.0		22.0			
Max Allow Headway (MAH), s			4.9		0.0		4.9		0.0			
Max Q Clear (g_c+I1), s			43.2		0.0		22.1		0.0			
Green Ext Time (g_e), s			5.1		0.0		11.1		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3741		1870		3741		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis
 3: E Los Angeles Ave

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Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	49.0	0.0	22.0	0.0	49.0	0.0	22.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	2	0	1
Grp Vol (v), veh/h	0	2023	0	0	0	1381	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	0	1870	0	1777	0	1870
Q Serve Time (g_s), s	0.0	41.2	0.0	0.0	0.0	20.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	41.2	0.0	0.0	0.0	20.1	0.0	0.0
Lane Grp Cap (c), veh/h	0	2177	0	514	0	2177	0	514
V/C Ratio (X)	0.00	0.93	0.00	0.00	0.00	0.63	0.00	0.00
Avail Cap (c_a), veh/h	0	2177	0	514	0	2177	0	514
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	14.4	0.0	0.0	0.0	10.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	8.6	0.0	0.0	0.0	1.4	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
Control Delay (d), s/veh	0.0	23.0	0.0	0.0	0.0	11.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	12.3	0.0	0.0	0.0	6.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	2.6	0.0	0.0	0.0	0.4	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis

3: E Los Angeles Ave

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	14.9	0.0	0.0	0.0	6.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	3.86	0.00	0.00	0.00	1.29	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data













Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	18.4
HCM 6th LOS	B

HCM 6th Signalized Intersection Capacity Analysis
4: Hlidden Ranch Dr

03/08/2021

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Volume (veh/h)	0	0	0	0	0	0	0	177	0	0	267	0
Future Volume (veh/h)	0	0	0	0	0	0	0	177	0	0	267	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1870	0	0	1870	0	0	1870	0	0	1870	0
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	188	0	0	284	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	0	0	2	0	0	2	0	0	2	0
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	0	840	0	0	840	0	0	687	0	0	687	0
HCM Platoon Ratio	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.97	1.00
Prop Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.36	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0	0.0	13.6	0.0
Ln Grp LOS	A	A	A	A	A	A	A	B	A	A	B	A
Approach Vol, veh/h		0			0			188			284	
Approach Delay, s/veh		0.0			0.0			12.0			13.6	
Approach LOS								B			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			8.0		8.0		8.0		8.0			
Phs Duration (G+Y+Rc), s			22.5		26.5		22.5		26.5			
Change Period (Y+Rc), s			4.5		4.5		4.5		4.5			
Max Green (Gmax), s			18.0		22.0		18.0		22.0			
Max Allow Headway (MAH), s			5.1		0.0		5.1		0.0			
Max Q Clear (g_c+I1), s			5.5		0.0		7.6		0.0			
Green Ext Time (g_e), s			0.7		0.0		1.1		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.00		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			0		0		0		0			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			1870		1870		1870		1870			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			0		0		0		0			
Left Lane Group Data												
Assigned Mvmt		0	5	0	7	0	1	0	3			
Lane Assignment												

HCM 6th Signalized Intersection Capacity Analysis

4: Hidden Ranch Dr

03/08/2021

Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	18.0	0.0	22.0	0.0	18.0	0.0	22.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	188	0	0	0	284	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	1870	0	1870	0	1870
Q Serve Time (g_s), s	0.0	3.5	0.0	0.0	0.0	5.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	3.5	0.0	0.0	0.0	5.6	0.0	0.0
Lane Grp Cap (c), veh/h	0	687	0	840	0	687	0	840
V/C Ratio (X)	0.00	0.27	0.00	0.00	0.00	0.41	0.00	0.00
Avail Cap (c_a), veh/h	0	687	0	840	0	687	0	840
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	11.0	0.0	0.0	0.0	11.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.0	0.0	0.0	0.0	1.8	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
Control Delay (d), s/veh	0.0	12.0	0.0	0.0	0.0	13.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	1.2	0.0	0.0	0.0	1.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.3	0.0	0.0

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	1.4	0.0	0.0	0.0	2.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	1.07	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

HCM 6th Signalized Intersection Capacity Analysis

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↘	↑↑	↗	↘	↑↑		↘	↑↑		↘	↑↑		
Traffic Volume (veh/h)	422	1336	137	183	1016	227	75	458	85	137	401	242	
Future Volume (veh/h)	422	1336	137	183	1016	227	75	458	85	137	401	242	
Number	7	4	14	3	8	18	5	2	12	1	6	16	
Initial Q, 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		
Lanes Open During Work Zone													
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	449	1421	146	195	1081	241	80	487	90	146	427	257	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Opposing Right Turn Influence	Yes			Yes			Yes			Yes			
Cap, veh/h	446	1650	736	278	1012	224	163	792	146	204	566	337	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Prop Arrive On Green	0.19	0.46	0.46	0.08	0.35	0.35	0.26	0.26	0.26	0.26	0.26	0.26	
Unsig. Movement Delay													
Ln Grp Delay, s/veh	63.8	21.6	11.2	24.1	77.5	80.5	43.2	28.5	28.7	47.1	31.8	32.9	
Ln Grp LOS	F	C	B	C	F	F	D	C	C	D	C	C	
Approach Vol, veh/h		2016			1517			657			830		
Approach Delay, s/veh		30.3			71.9			30.3			34.9		
Approach LOS		C			E			C			C		
Timer:		1	2	3	4	5	6	7	8				
Assigned Phs			2	3	4		6	7	8				
Case No			6.0	1.1	3.0		6.0	1.1	4.0				
Phs Duration (G+Y+Rc), s			23.0	10.0	37.0		23.0	18.0	29.0				
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5				
Max Green (Gmax), s			18.5	5.5	32.5		18.5	13.5	24.5				
Max Allow Headway (MAH), s			5.4	3.8	5.1		5.4	3.8	5.3				
Max Q Clear (g_c+I1), s			20.5	6.9	27.0		20.5	15.5	26.5				
Green Ext Time (g_e), s			0.0	0.0	4.2		0.0	0.0	0.0				
Prob of Phs Call (p_c)			1.00	0.98	1.00		1.00	1.00	1.00				
Prob of Max Out (p_x)			0.00	1.00	0.98		0.00	1.00	1.00				
Left-Turn Movement Data													
Assigned Mvmt			5	3			1	7					
Mvmt Sat Flow, veh/h			757	1781			836	1781					
Through Movement Data													
Assigned Mvmt			2		4		6		8				
Mvmt Sat Flow, veh/h			2997		3554		2141		2891				
Right-Turn Movement Data													
Assigned Mvmt			12		14		16		18				
Mvmt Sat Flow, veh/h			551		1585		1277		641				
Left Lane Group Data													
Assigned Mvmt		0	5	3	0	0	1	7	0				
Lane Assignment			LL (Pr/Pm)					LL (Pr/Pm)					

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Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	80	195	0	0	146	449	0
Grp Sat Flow (s), veh/h/ln	0	757	1781	0	0	836	1781	0
Q Serve Time (g_s), s	0.0	5.5	4.9	0.0	0.0	8.4	13.5	0.0
Cycle Q Clear Time (g_c), s	0.0	18.5	4.9	0.0	0.0	18.5	13.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	757	328	0	0	836	415	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	18.5	24.5	0.0	0.0	18.5	26.5	0.0
Perm LT Serve Time (g_u), s	0.0	5.5	7.5	0.0	0.0	8.4	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	5.5	7.5	0.0	0.0	8.4	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	163	278	0	0	204	446	0
V/C Ratio (X)	0.00	0.49	0.70	0.00	0.00	0.72	1.01	0.00
Avail Cap (c_a), veh/h	0	163	278	0	0	204	446	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.75	1.00	0.00
Uniform Delay (d1), s/veh	0.0	32.9	16.4	0.0	0.0	32.1	19.8	0.0
Incr Delay (d2), s/veh	0.0	10.3	7.7	0.0	0.0	15.0	44.1	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	43.2	24.1	0.0	0.0	47.1	63.8	0.0
1st-Term Q (Q1), veh/ln	0.0	1.3	1.8	0.0	0.0	2.4	7.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.6	0.0	0.0	0.8	5.5	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	1.8	2.4	0.0	0.0	3.3	12.4	0.0
%ile Storage Ratio (RQ%)	0.00	0.45	0.40	0.00	0.00	0.55	1.86	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	2	0	1	0	1
Grp Vol (v), veh/h	0	288	0	1421	0	354	0	662
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	9.9	0.0	25.0	0.0	12.8	0.0	24.5
Cycle Q Clear Time (g_c), s	0.0	9.9	0.0	25.0	0.0	12.8	0.0	24.5
Lane Grp Cap (c), veh/h	0	470	0	1650	0	470	0	622
V/C Ratio (X)	0.00	0.61	0.00	0.86	0.00	0.75	0.00	1.07
Avail Cap (c_a), veh/h	0	470	0	1650	0	470	0	622
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.75	0.00	1.00
Uniform Delay (d1), s/veh	0.0	22.6	0.0	16.7	0.0	23.7	0.0	22.8
Incr Delay (d2), s/veh	0.0	5.9	0.0	4.9	0.0	8.2	0.0	54.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	28.5	0.0	21.6	0.0	31.8	0.0	77.5
1st-Term Q (Q1), veh/ln	0.0	3.9	0.0	8.9	0.0	5.0	0.0	9.3
2nd-Term Q (Q2), veh/ln	0.0	0.8	0.0	1.1	0.0	1.1	0.0	9.5

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.7	0.0	10.0	0.0	6.1	0.0	18.8
%ile Storage Ratio (RQ%)	0.00	0.26	0.00	0.41	0.00	0.10	0.00	0.47
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	289	0	146	0	330	0	660
Grp Sat Flow (s), veh/h/ln	0	1771	0	1585	0	1641	0	1755
Q Serve Time (g_s), s	0.0	10.1	0.0	3.8	0.0	13.0	0.0	24.5
Cycle Q Clear Time (g_c), s	0.0	10.1	0.0	3.8	0.0	13.0	0.0	24.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.31	0.00	1.00	0.00	0.78	0.00	0.37
Lane Grp Cap (c), veh/h	0	468	0	736	0	434	0	614
V/C Ratio (X)	0.00	0.62	0.00	0.20	0.00	0.76	0.00	1.07
Avail Cap (c_a), veh/h	0	468	0	736	0	434	0	614
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.75	0.00	1.00
Uniform Delay (d1), s/veh	0.0	22.6	0.0	11.1	0.0	23.7	0.0	22.8
Incr Delay (d2), s/veh	0.0	6.0	0.0	0.1	0.0	9.2	0.0	57.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	28.7	0.0	11.2	0.0	32.9	0.0	80.5
1st-Term Q (Q1), veh/ln	0.0	3.9	0.0	1.2	0.0	4.7	0.0	9.2
2nd-Term Q (Q2), veh/ln	0.0	0.8	0.0	0.0	0.0	1.1	0.0	9.8
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.7	0.0	1.2	0.0	5.8	0.0	19.1
%ile Storage Ratio (RQ%)	0.00	0.26	0.00	0.21	0.00	0.09	0.00	0.48
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Intersection Summary

HCM 6th Ctrl Delay	43.6
HCM 6th LOS	D

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	566	947	75	160	669	581	119	1196	160	509	874	663
Future Volume (veh/h)	566	947	75	160	669	581	119	1196	160	509	874	663
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	590	986	78	167	697	605	124	1246	167	530	910	691
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	406	1151	514	224	729	325	185	1119	499	397	1338	890
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.19	0.32	0.32	0.07	0.21	0.21	0.05	0.31	0.31	0.12	0.38	0.38
Unsig. Movement Delay												
Ln Grp Delay, s/veh	244.8	38.2	24.2	38.0	51.7	432.3	54.0	97.8	28.0	210.7	28.9	23.6
Ln Grp LOS	F	D	C	D	D	F	D	F	C	F	C	C
Approach Vol, veh/h		1654			1469			1537			2131	
Approach Delay, s/veh		111.2			206.9			86.7			72.4	
Approach LOS		F			F			F			E	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		2.0	3.0	1.1	3.0	2.0	3.0	1.1	3.0			
Phs Duration (G+Y+Rc), s		16.0	36.0	11.1	36.9	9.9	42.1	23.0	25.0			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		11.5	31.5	6.6	32.4	5.8	37.2	18.5	20.5			
Max Allow Headway (MAH), s		3.8	5.1	3.8	5.2	3.8	4.7	3.8	4.7			
Max Q Clear (g_c+I1), s		13.5	33.5	8.6	28.0	5.5	35.9	20.5	22.5			
Green Ext Time (g_e), s		0.0	0.0	0.0	2.7	0.0	1.0	0.0	0.0			
Prob of Phs Call (p_c)		1.00	1.00	0.99	1.00	0.97	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		3456		1781		3456		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		3554		3554			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		1585		1585			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Prot)		L (Pr/Pm)		L (Prot)		L (Pr/Pm)				

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Lanes in Grp	2	0	1	0	2	0	1	0
Grp Vol (v), veh/h	530	0	167	0	124	0	590	0
Grp Sat Flow (s), veh/h/ln	1728	0	1781	0	1728	0	1781	0
Q Serve Time (g_s), s	11.5	0.0	6.6	0.0	3.5	0.0	18.5	0.0
Cycle Q Clear Time (g_c), s	11.5	0.0	6.6	0.0	3.5	0.0	18.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	530	0	0	0	423	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	20.5	0.0	0.0	0.0	22.5	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	6.4	0.0	0.0	0.0	1.1	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	6.4	0.0	0.0	0.0	1.1	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	397	0	224	0	185	0	406	0
V/C Ratio (X)	1.33	0.00	0.75	0.00	0.67	0.00	1.45	0.00
Avail Cap (c_a), veh/h	397	0	224	0	200	0	406	0
Upstream Filter (I)	1.00	0.00	0.40	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	44.3	0.0	32.6	0.0	46.5	0.0	27.9	0.0
Incr Delay (d2), s/veh	166.5	0.0	5.4	0.0	7.6	0.0	217.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	210.7	0.0	38.0	0.0	54.0	0.0	244.8	0.0
1st-Term Q (Q1), veh/ln	4.9	0.0	3.2	0.0	1.5	0.0	7.6	0.0
2nd-Term Q (Q2), veh/ln	9.2	0.0	0.3	0.0	0.2	0.0	24.5	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	14.1	0.0	3.5	0.0	1.7	0.0	32.1	0.0
%ile Storage Ratio (RQ%)	3.57	0.00	0.30	0.00	0.27	0.00	2.72	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	33.1	0.0	0.0	0.0	0.0	0.0	45.9	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.3	0.0	0.0	0.0	0.0	0.0	0.4	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	2	0	2	0	2
Grp Vol (v), veh/h	0	1246	0	986	0	910	0	697
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	31.5	0.0	26.0	0.0	21.5	0.0	19.4
Cycle Q Clear Time (g_c), s	0.0	31.5	0.0	26.0	0.0	21.5	0.0	19.4
Lane Grp Cap (c), veh/h	0	1119	0	1151	0	1338	0	729
V/C Ratio (X)	0.00	1.11	0.00	0.86	0.00	0.68	0.00	0.96
Avail Cap (c_a), veh/h	0	1119	0	1151	0	1338	0	729
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.40
Uniform Delay (d1), s/veh	0.0	34.3	0.0	31.6	0.0	26.1	0.0	39.3
Incr Delay (d2), s/veh	0.0	63.6	0.0	6.6	0.0	2.8	0.0	12.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	97.8	0.0	38.2	0.0	28.9	0.0	51.7
1st-Term Q (Q1), veh/ln	0.0	13.2	0.0	10.8	0.0	8.8	0.0	8.3
2nd-Term Q (Q2), veh/ln	0.0	9.9	0.0	1.0	0.0	0.5	0.0	1.3

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	23.1	0.0	11.9	0.0	9.3	0.0	9.6
%ile Storage Ratio (RQ%)	0.00	0.70	0.00	0.86	0.00	1.06	0.00	0.24
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	31.6	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	167	0	78	0	691	0	605
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1585	0	1585
Q Serve Time (g_s), s	0.0	8.1	0.0	3.5	0.0	33.9	0.0	20.5
Cycle Q Clear Time (g_c), s	0.0	8.1	0.0	3.5	0.0	33.9	0.0	20.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1585.1	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	18.5	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	499	0	514	0	890	0	325
V/C Ratio (X)	0.00	0.33	0.00	0.15	0.00	0.78	0.00	1.86
Avail Cap (c_a), veh/h	0	499	0	514	0	890	0	325
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.40
Uniform Delay (d1), s/veh	0.0	26.2	0.0	24.0	0.0	17.0	0.0	39.8
Incr Delay (d2), s/veh	0.0	1.8	0.0	0.1	0.0	6.6	0.0	392.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	28.0	0.0	24.2	0.0	23.6	0.0	432.3
1st-Term Q (Q1), veh/ln	0.0	3.0	0.0	1.3	0.0	11.4	0.0	7.8
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	1.6	0.0	35.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.3	0.0	1.3	0.0	13.0	0.0	43.3
%ile Storage Ratio (RQ%)	0.00	0.52	0.00	0.48	0.00	1.65	0.00	1.09
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	70.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5

Intersection Summary

HCM 6th Ctrl Delay	114.2
HCM 6th LOS	F

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	284	707	273	199	502	135	338	630	243	155	509	193
Future Volume (veh/h)	284	707	273	199	502	135	338	630	243	155	509	193
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	302	752	290	212	534	91	360	670	153	165	541	99
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	410	724	279	244	725	123	441	945	216	336	724	132
HCM Platoon Ratio	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.00
Prop Arrive On Green	0.27	0.58	0.58	0.17	0.48	0.48	0.32	0.66	0.66	0.14	0.48	0.24
Unsig. Movement Delay												
Ln Grp Delay, s/veh	17.8	45.7	46.3	49.0	25.3	25.6	26.6	18.4	18.5	20.6	29.9	33.1
Ln Grp LOS	B	F	F	D	C	C	C	B	B	C	C	C
Approach Vol, veh/h		1344			837			1183			805	
Approach Delay, s/veh		39.6			31.4			20.9			29.3	
Approach LOS		D			C			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	1.1	4.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		10.2	30.8	11.4	27.6	17.2	23.8	15.4	23.6			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		5.7	26.3	6.9	23.1	12.7	19.3	10.9	19.1			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	5.3	3.8	5.3			
Max Q Clear (g_c+I1), s		7.7	14.0	8.9	25.1	14.7	14.3	12.5	13.4			
Green Ext Time (g_e), s		0.0	4.3	0.0	0.0	0.0	1.7	0.0	1.9			
Prob of Phs Call (p_c)		0.97	1.00	0.99	1.00	1.00	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	1.00	1.00	0.00	1.00	0.92			
Left-Turn Movement Data												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			2874		2507		3001		3038			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			656		966		547		516			
Left Lane Group Data												
Assigned Mvmt		1	0	3	0	5	0	7	0			
Lane Assignment		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)				

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Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	165	0	212	0	360	0	302	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	5.7	0.0	6.9	0.0	12.7	0.0	10.5	0.0
Cycle Q Clear Time (g_c), s	5.7	0.0	6.9	0.0	12.7	0.0	10.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	665	0	541	0	789	0	800	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	19.3	0.0	19.1	0.0	21.3	0.0	20.6	0.0
Perm LT Serve Time (g_u), s	14.3	0.0	0.0	0.0	7.0	0.0	7.7	0.0
Perm LT Q Serve Time (g_ps), s	1.7	0.0	0.0	0.0	7.0	0.0	6.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	336	0	244	0	441	0	410	0
V/C Ratio (X)	0.49	0.00	0.87	0.00	0.82	0.00	0.74	0.00
Avail Cap (c_a), veh/h	336	0	244	0	441	0	410	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	0.20	0.00
Uniform Delay (d1), s/veh	19.5	0.0	22.0	0.0	15.3	0.0	16.3	0.0
Incr Delay (d2), s/veh	1.1	0.0	27.0	0.0	11.3	0.0	1.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	20.6	0.0	49.0	0.0	26.6	0.0	17.8	0.0
1st-Term Q (Q1), veh/ln	2.1	0.0	2.6	0.0	3.4	0.0	3.1	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	1.8	0.0	1.4	0.0	0.2	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.2	0.0	4.4	0.0	4.8	0.0	3.3	0.0
%ile Storage Ratio (RQ%)	0.46	0.00	0.94	0.00	0.88	0.00	0.70	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	414	0	533	0	319	0	311
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	12.0	0.0	23.1	0.0	11.6	0.0	11.3
Cycle Q Clear Time (g_c), s	0.0	12.0	0.0	23.1	0.0	11.6	0.0	11.3
Lane Grp Cap (c), veh/h	0	584	0	513	0	429	0	424
V/C Ratio (X)	0.00	0.71	0.00	1.04	0.00	0.75	0.00	0.73
Avail Cap (c_a), veh/h	0	584	0	513	0	429	0	424
Upstream Filter (I)	0.00	1.00	0.00	0.20	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	11.2	0.0	16.9	0.0	18.7	0.0	18.9
Incr Delay (d2), s/veh	0.0	7.1	0.0	28.8	0.0	11.2	0.0	6.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.4	0.0	45.7	0.0	29.9	0.0	25.3
1st-Term Q (Q1), veh/ln	0.0	2.9	0.0	4.7	0.0	3.5	0.0	3.4
2nd-Term Q (Q2), veh/ln	0.0	1.2	0.0	4.1	0.0	1.3	0.0	0.8

HCM 6th Signalized Intersection Capacity Analysis

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.0	0.0	8.9	0.0	4.8	0.0	4.2
%ile Storage Ratio (RQ%)	0.00	0.09	0.00	0.22	0.00	0.37	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	409	0	509	0	321	0	314
Grp Sat Flow (s), veh/h/ln	0	1752	0	1696	0	1772	0	1778
Q Serve Time (g_s), s	0.0	12.0	0.0	23.1	0.0	12.3	0.0	11.4
Cycle Q Clear Time (g_c), s	0.0	12.0	0.0	23.1	0.0	12.3	0.0	11.4
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.37	0.00	0.57	0.00	0.31	0.00	0.29
Lane Grp Cap (c), veh/h	0	576	0	490	0	427	0	424
V/C Ratio (X)	0.00	0.71	0.00	1.04	0.00	0.75	0.00	0.74
Avail Cap (c_a), veh/h	0	576	0	490	0	427	0	424
Upstream Filter (I)	0.00	1.00	0.00	0.20	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	11.2	0.0	16.9	0.0	21.6	0.0	18.9
Incr Delay (d2), s/veh	0.0	7.2	0.0	29.4	0.0	11.5	0.0	6.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.5	0.0	46.3	0.0	33.1	0.0	25.6
1st-Term Q (Q1), veh/ln	0.0	2.8	0.0	4.5	0.0	4.1	0.0	3.4
2nd-Term Q (Q2), veh/ln	0.0	1.2	0.0	4.0	0.0	1.4	0.0	0.8
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.0	0.0	8.5	0.0	5.4	0.0	4.2
%ile Storage Ratio (RQ%)	0.00	0.09	0.00	0.21	0.00	0.42	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	4.8	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↖	↕		↖	↕		↖	↕	↗	↖	↕	↗	
Traffic Volume (veh/h)	112	1249	319	255	951	112	324	432	204	96	294	98	
Future Volume (veh/h)	112	1249	319	255	951	112	324	432	204	96	294	98	
Number	7	4	14	3	8	18	5	2	12	1	6	16	
Initial Q, 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		
Lanes Open During Work Zone													
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	117	1301	332	266	991	117	338	450	212	100	306	102	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2	
Opposing Right Turn Influence	Yes			Yes			Yes			Yes			
Cap, veh/h	272	1111	278	248	1380	163	349	1283	572	288	950	311	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Prop Arrive On Green	0.06	0.39	0.39	0.09	0.43	0.43	0.36	0.36	0.36	0.36	0.36	0.36	
Unsig. Movement Delay													
Ln Grp Delay, s/veh	18.3	113.6	128.8	102.2	24.3	24.3	63.0	21.4	22.2	31.0	22.1	22.3	
Ln Grp LOS	B	F	F	F	C	C	E	C	C	C	C	C	
Approach Vol, veh/h		1750			1374			1000			508		
Approach Delay, s/veh		114.4			39.4			35.6			23.9		
Approach LOS		F			D			D			C		
Timer:		1	2	3	4	5	6	7	8				
Assigned Phs			2	3	4		6	7	8				
Case No			5.0	1.1	4.0		6.0	1.1	4.0				
Phs Duration (G+Y+Rc), s			37.0	13.0	40.0		37.0	9.7	43.3				
Change Period (Y+Rc), s			4.5	4.5	4.5		4.5	4.5	4.5				
Max Green (Gmax), s			32.5	8.5	35.5		32.5	6.4	37.6				
Max Allow Headway (MAH), s			4.9	3.8	5.3		5.4	3.8	5.3				
Max Q Clear (g_c+I1), s			34.5	10.5	37.5		20.1	5.5	25.0				
Green Ext Time (g_e), s			0.0	0.0	0.0		2.5	0.0	6.0				
Prob of Phs Call (p_c)			1.00	1.00	1.00		1.00	0.95	1.00				
Prob of Max Out (p_x)			0.00	1.00	1.00		0.00	1.00	0.52				
Left-Turn Movement Data													
Assigned Mvmt			5	3			1	7					
Mvmt Sat Flow, veh/h			978	1781			773	1781					
Through Movement Data													
Assigned Mvmt			2		4		6		8				
Mvmt Sat Flow, veh/h			3554		2816		2632		3201				
Right-Turn Movement Data													
Assigned Mvmt			12		14		16		18				
Mvmt Sat Flow, veh/h			1585		704		861		378				
Left Lane Group Data													
Assigned Mvmt		0	5	3	0	0	1	7	0				
Lane Assignment			LL (Pr/Pm)					LL (Pr/Pm)					

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Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	338	266	0	0	100	117	0
Grp Sat Flow (s), veh/h/ln	0	978	1781	0	0	773	1781	0
Q Serve Time (g_s), s	0.0	24.8	8.5	0.0	0.0	9.8	3.5	0.0
Cycle Q Clear Time (g_c), s	0.0	32.5	8.5	0.0	0.0	18.1	3.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	978	308	0	0	773	509	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	32.5	36.3	0.0	0.0	32.5	35.5	0.0
Perm LT Serve Time (g_u), s	0.0	24.8	0.0	0.0	0.0	24.2	15.8	0.0
Perm LT Q Serve Time (g_ps), s	0.0	24.8	0.0	0.0	0.0	9.8	5.9	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	349	248	0	0	288	272	0
V/C Ratio (X)	0.00	0.97	1.07	0.00	0.00	0.35	0.43	0.00
Avail Cap (c_a), veh/h	0	349	248	0	0	288	296	0
Upstream Filter (I)	0.00	0.52	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	35.1	24.8	0.0	0.0	27.7	17.2	0.0
Incr Delay (d2), s/veh	0.0	27.8	77.4	0.0	0.0	3.3	1.1	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	63.0	102.2	0.0	0.0	31.0	18.3	0.0
1st-Term Q (Q1), veh/ln	0.0	7.5	3.4	0.0	0.0	1.8	1.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	2.7	5.3	0.0	0.0	0.3	0.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	10.2	8.7	0.0	0.0	2.0	1.4	0.0
%ile Storage Ratio (RQ%)	0.00	1.72	1.47	0.00	0.00	0.32	0.24	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	2	0	1	0	1	0	1
Grp Vol (v), veh/h	0	450	0	811	0	205	0	550
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	8.3	0.0	35.5	0.0	7.5	0.0	22.9
Cycle Q Clear Time (g_c), s	0.0	8.3	0.0	35.5	0.0	7.5	0.0	22.9
Lane Grp Cap (c), veh/h	0	1283	0	701	0	642	0	766
V/C Ratio (X)	0.00	0.35	0.00	1.16	0.00	0.32	0.00	0.72
Avail Cap (c_a), veh/h	0	1283	0	701	0	642	0	766
Upstream Filter (I)	0.00	0.52	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	21.0	0.0	27.3	0.0	20.8	0.0	21.1
Incr Delay (d2), s/veh	0.0	0.4	0.0	86.4	0.0	1.3	0.0	3.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	21.4	0.0	113.6	0.0	22.1	0.0	24.3
1st-Term Q (Q1), veh/ln	0.0	3.4	0.0	14.2	0.0	3.0	0.0	9.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	16.8	0.0	0.2	0.0	0.7

HCM 6th Signalized Intersection Capacity Analysis

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.4	0.0	31.0	0.0	3.3	0.0	9.7
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.91	0.00	0.37	0.00	0.18
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	27.6	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	212	0	822	0	203	0	558
Grp Sat Flow (s), veh/h/ln	0	1585	0	1744	0	1715	0	1802
Q Serve Time (g_s), s	0.0	8.9	0.0	35.5	0.0	7.7	0.0	23.0
Cycle Q Clear Time (g_c), s	0.0	8.9	0.0	35.5	0.0	7.7	0.0	23.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.40	0.00	0.50	0.00	0.21
Lane Grp Cap (c), veh/h	0	572	0	688	0	619	0	777
V/C Ratio (X)	0.00	0.37	0.00	1.19	0.00	0.33	0.00	0.72
Avail Cap (c_a), veh/h	0	572	0	688	0	619	0	777
Upstream Filter (I)	0.00	0.52	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	21.2	0.0	27.3	0.0	20.8	0.0	21.1
Incr Delay (d2), s/veh	0.0	1.0	0.0	101.5	0.0	1.4	0.0	3.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.2	0.0	128.8	0.0	22.3	0.0	24.3
1st-Term Q (Q1), veh/ln	0.0	3.2	0.0	13.9	0.0	3.0	0.0	9.2
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	19.4	0.0	0.2	0.0	0.7
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.4	0.0	33.3	0.0	3.3	0.0	9.9
%ile Storage Ratio (RQ%)	0.00	0.57	0.00	0.98	0.00	0.37	0.00	0.19
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	33.5	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	65.2
HCM 6th LOS	E



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Appendix F. Future Year (2045) Level of Service Worksheets

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Calculation

Project Simi Valley Double Track
Location City of Simi Valley, CA
Discipline Traffic
Subject Detour Calculations
Job No. 0
Calc No. 00000



Computed A. Rubio
Date 12/12/2019
Reviewed BBM
Date 5/13/2020

Ambient Growth 6.99%

Construction Year Phase 1 - AM

Intersection	2022 Volume											
	NB			SB			EB			WB		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	109	297	386	183	403	331	144	517	36	196	890	117
2	20	39	33	166	117	316	324	632	63	71	852	193
3	0	0	0	0	0	0	0	808	0	0	1179	0
4	0	247	0	0	85	0	0	0	0	0	0	0
5	89	437	48	103	311	264	189	566	47	86	773	124
6	55	549	66	223	737	340	438	412	81	105	418	313
7	89	258	77	187	370	165	210	351	123	154	314	130
8	185	277	280	113	301	53	39	440	105	170	580	88
9 Total Number												

AM

Intersection	Detour Volume											
	NB			SB			EB			WB		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	149	-297	149	-183	-403	-331	-144	72	41		117	-117
2				31		31	89	59				
3								91				
4												
5				41		72	72	-72				133
6	-44	-439	-53	210	-663	109	82	115	-73	-84	84	62
7	62			27					62	111		
8	41	61	82						41	33	76	
Total Number												

AM

Intersection	Final Volume											
	NB			SB			EB			WB		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	258		535					589	77	196	1007	
2	20	39	33	197	117	347	413	692	63	71	852	193
3								898			1179	
4		247			85							
5	89	437	48	143	311	336	262	494	47	86	773	256
6	11	110	13	433	74	450	520	527	8	21	502	376
7	151	258	103	187	370	165	210	351	185	265	314	130
8	226	338	362	113	301	53	39	440	146	202	657	88
Total Number												

Construction Year Phase 1 - PM

Intersection	2022 Volume											
	NB			SB			EB			WB		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	32	447	408	163	217	212	278	828	7	187	701	160
2	62	82	80	198	46	340	400	937	47	37	625	216
3	0	0	0	0	0	0	0	1258	0	0	859	0
4	0	119	0	0	179	0	0	0	0	0	0	0
5	50	307	57	92	268	162	282	893	92	123	680	152
6	80	800	107	340	585	443	379	634	50	107	448	389
7	227	422	163	104	340	129	191	473	183	134	336	91
8	217	289	137	65	197	66	76	835	213	171	636	76
Total Number												

PM

Intersection	Detour Volume											
	NB			SB			EB			WB		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	224	-447	224	-163	-217	-212	-278	139	25		160	-160
2				47		47	134	89				
3								136				
4												
5				25		139	139	-139				192
6	-64	-640	-86	211	-526	168	132	88	-45	-86	86	94
7	94			40					94	88		
8	66	99	132						25	50	118	
Total Number												

PM

Intersection	Final Volume											
	NB			SB			EB			WB		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	256		631					967	33	187	861	
2	62	82	80	245	46	387	534	1027	47	37	625	216
3								1395			859	
4		119			179							
5	50	307	57	117	268	301	422	754	92	123	680	344
6	16	160	21	551	58	612	511	722	5	21	534	483
7	321	422	203	104	340	129	191	473	277	221	336	91
8	283	388	269	65	197	66	76	835	239	221	754	76
Total Number												

Calculation

Project Simi Valley Double Track
Location City of Simi Valley, CA
Discipline Traffic
Subject Detour Calculations
Job No. 0
Calc No. 00000



Computed A. Rubio
Date 12/12/2019
Reviewed BBM
Date 5/13/2020

Construction Year Phase 2 - AM

Intersection	2022 Volume											
	NB			SB			EB			WB		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	15	297	386	183	403	331	144	517	36	196	890	117
2	20	39	33	166	117	316	324	632	63	71	852	193
3	0	0	0	0	0	0	0	808	0	0	1179	0
4	0	247	0	0	85	0	0	0	0	0	0	0
5	89	437	48	103	311	264	189	566	47	86	773	124
6	55	549	66	223	737	340	438	412	81	105	418	313
7	89	258	77	187	370	165	210	351	123	154	314	130
8	185	277	280	113	301	53	39	440	105	170	580	88

9 Total Number

AM

Intersection	Detour Volume											
	NB			SB			EB			WB		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1				212		97	97	-97				212
2	19	-39	19	-166	-117	-316	-324				193	-193
3								19			19	
4												
5						97	97					
6		97			97	97	97	56			56	56
7	-71	-169	-61	111	-222	111	56		-74	-93		111
8						97					97	

Total Number

AM

Intersection	Final Volume											
	NB			SB			EB			WB		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	15	297	386	395	403	428	242	420	36	196	890	328
2	40		52	0	0	0	0	632	63	71	1044	0
3								827			1198	
4		247			85							
5	89	437	48	103	311	361	287	566	47	86	773	124
6	55	646	66	223	834	438	535	467	81	105	474	369
7	18	89	15	298	148	276	266	351	49	62	314	241
8	185	277	378	113	301	53	39	440	105	267	580	88

Total Number

Construction Year Phase 2 - PM

Intersection	2022 Volume											
	NB			SB			EB			WB		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	32	447	408	163	217	212	278	828	7	187	701	160
2	62	82	80	198	46	340	400	937	47	37	625	216
3	0	0	0	0	0	0	0	1258	0	0	859	0
4	0	119	0	0	179	0	0	0	0	0	0	0
5	50	307	57	92	268	162	282	893	92	123	680	152
6	80	800	107	340	585	443	379	634	50	107	448	389
7	227	422	163	104	340	129	191	473	183	134	336	91
8	217	289	137	65	197	66	76	835	213	171	636	76

Total Number

PM

Intersection	Detour Volume											
	NB			SB			EB			WB		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1				257		120	120	-120				257
2	41	-82	41	-198	-46	-340	-400				216	-216
3								41			41	
4												
5						120	120					
6		120			120	120	120	51			51	51
7	-181	-206	-131	102	-204	102	51		-110	-80		102
8						120					120	

Total Number

PM

Intersection	Final Volume											
	NB			SB			EB			WB		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	32	447	408	420	217	332	398	708	7	187	701	418
2	103		121	0	0	0	0	937	47	37	841	0
3								1299			900	
4		119			179							
5	50	307	57	92	268	282	403	893	92	123	680	152
6	80	920	107	340	705	563	499	685	50	107	499	440
7	45	216	33	206	136	231	242	473	73	53	336	193
8	217	289	257	65	197	66	76	835	213	291	636	76

Total Number

Calculation

Project Simi Valley Double Track
 Location City of Simi Valley, CA
 Discipline Traffic
 Subject Detour Calculations
 Job No. 0



Computed A. Rubio
 Date 12/12/2019
 Reviewed BBM
 Date 5/13/2020

Construction Year Phase 3 - AM

Intersection	2022 Volume											
	NB			SB			EB			WB		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	15	297	386	183	403	331	144	517	36	196	890	117
2	20	39	33	166	117	316	324	632	63	71	852	193
3	0	0	0	0	0	0	0	808	0	0	1179	0
4	0	247	0	0	85	0	0	0	0	0	0	0
5	89	437	48	103	311	264	189	566	47	86	773	124
6	55	549	66	223	737	340	438	412	81	105	418	313
7	89	258	77	187	370	165	210	351	123	154	314	130
8	185	277	280	113	301	53	39	440	105	170	580	88

9 Total Number

AM

Intersection	Detour Volume											
	NB			SB			EB			WB		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1		379	-379	-174	379	454	207	-506		-137	-668	-82
2		30	-30	-158	30	126	126	-620		-67	-835	-183
3								-808			-1179	
4												
5		39	-39	-51	39	113	113	-226		-61	-518	-87
6		303	76		303	106	106	46		76	46	
7			156					46		94	46	
8										152		

Total Number

AM

Intersection	Final Volume											
	NB			SB			EB			WB		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	15	676	8	9	782	785	351	10	36	59	223	35
2	20	68	3	8	146	442	451	13	63	4	17	10
3												
4		247			85							
5	89	475	10	51	349	377	303	340	47	26	255	37
6	55	851	141	223	1040	447	544	457	81	181	464	313
7	89	258	233	187	370	165	210	397	123	248	360	130
8	185	277	432	113	301	53	39	440	105	321	580	88

Total Number

Construction Year Phase 3 - PM

Intersection	2022 Volume											
	NB			SB			EB			WB		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	32	447	408	163	217	212	278	828	7	187	701	160
2	62	82	80	198	46	340	400	937	47	37	625	216
3	0	0	0	0	0	0	0	1258	0	0	859	0
4	0	119	0	0	179	0	0	0	0	0	0	0
5	50	307	57	92	268	162	282	893	92	123	680	152
6	80	800	107	340	585	443	379	634	50	107	448	389
7	227	422	163	104	340	129	191	473	183	134	336	91
8	217	289	137	65	197	66	76	835	213	171	636	76

Total Number

PM

Intersection	Detour Volume											
	NB			SB			EB			WB		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1		399	-399	-154	399	479	331	-812		-131	-526	-112
2		72	-72	-188	72	187	187	-918		-36	-612	-205
3								-1258			-859	
4												
5		46	-46	-46	46	179	179	-357		-86	-456	-107
6		320	80		320	157	157	67		80	67	
7			260					67		156	67	
8			224							224		

Total Number

PM

Intersection	Final Volume											
	NB			SB			EB			WB		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
1	32	847	8	8	617	691	609	17	7	56	175	48
2	62	155	8	10	118	528	588	19	47	2	12	11
3												
4		119			179							
5	50	352	11	46	314	341	461	536	92	37	224	46
6	80	1120	187	340	904	600	536	701	50	187	515	389
7	227	422	423	104	340	129	191	540	183	289	403	91
8	217	289	361	65	197	66	76	835	213	395	636	76

Total Number



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