Appendix H

Transportation

Appendix H.1

Transportation Impact Report

Cheval Blanc Beverly Hills Specific Plan

Transportation Impact Report

Prepared for:
Eyestone Environmental

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LA20-3243

FEHR PEERS

Table of Contents

Appendices

List of Figures

List of Tables

1. Study Overview

This transportation impact report presents the results of the analysis conducted by Fehr & Peers for the proposed Cheval Blanc Beverly Hills Specific Plan and other requested approvals as set forth in the Draft Environmental Impact Report at section 27, "Required Approvals" (herein collectively referred to as the "proposed Project" or the "Project") in the City of Beverly Hills. The purpose of this study is to provide the transportation impact analysis required for the Environmental Impact Report being prepared for the proposed Project. Transportation conditions in the Project vicinity with the development of the proposed land use changes are compared to existing conditions. This chapter outlines the purpose of the study, the geographic scope, and the study scenarios.

1.1 Study Purpose

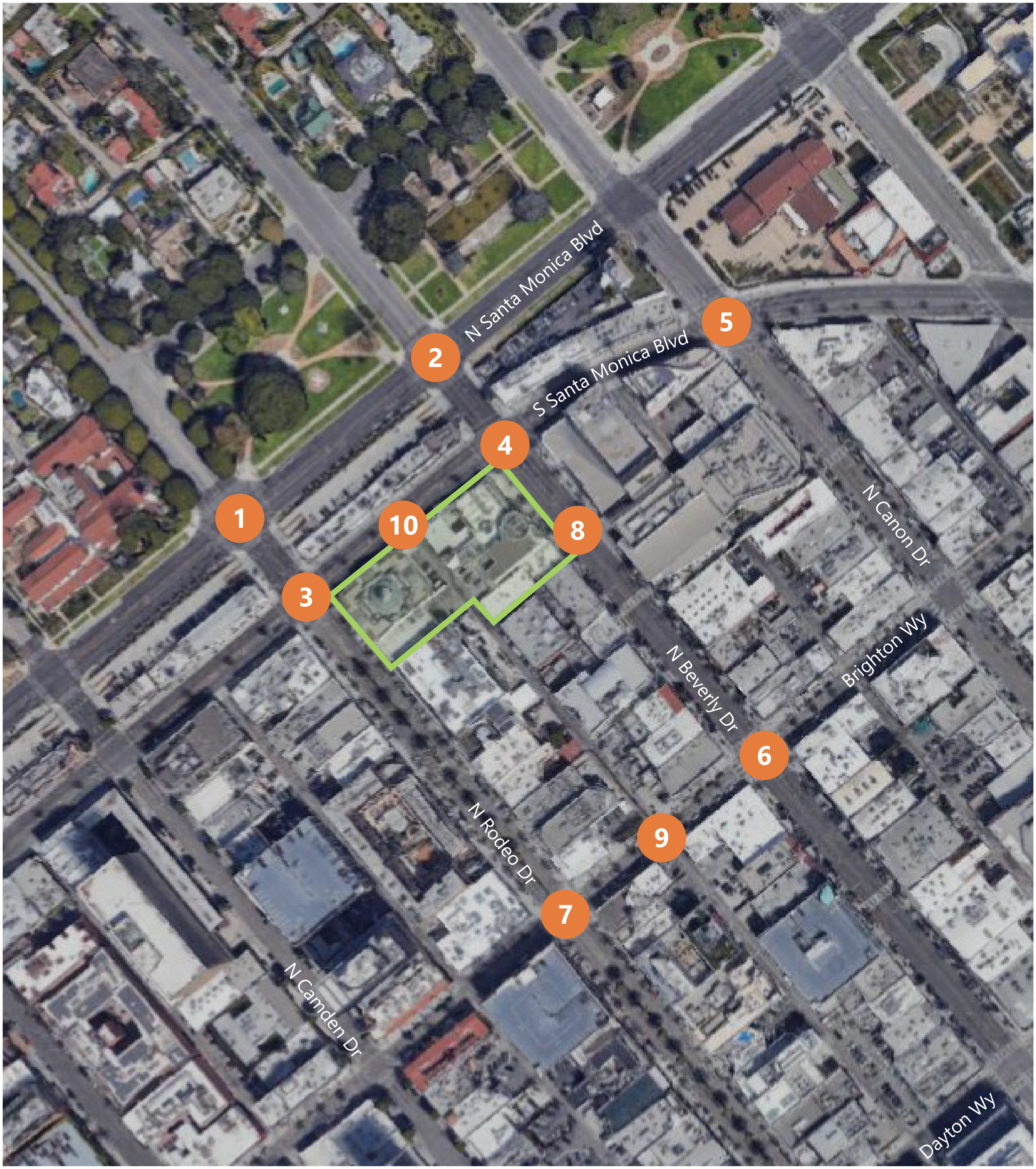
The purpose of this study is to analyze the potential for significant transportation impacts to occur with the development of the Project. The City of Beverly Hills has adopted new transportation impact thresholds and guidelines to adhere to CEQA requirements pertaining to Senate Bill 743 (SB 743). The primary purpose of SB 743 was eliminating level of service (LOS) as a measure of vehicular capacity and traffic congestion as a basis for determining significant transportation impacts under CEQA. Rather, SB 743 required lead agencies to shift the focus from evaluating traffic impacts based on metrics that only consider vehicle travel time and delay (i.e., impacts to drivers) to metrics that capture the state's goals of improved air quality, reduced greenhouse gas emissions, and improved public health (i.e., impacts of driving).

In response to SB 743, the Governor's Office of Planning and Research (OPR) selected vehicle miles travelled (VMT) as the new transportation impact metric for which lead agencies are required to define methodologies, thresholds, and mitigation consistent with their respective General Plan goals. It should be noted that while LOS no longer constitutes a CEQA impact, it can still be used to inform decision makers on the overall effects of a project. The deadline for agencies to implement SB 743 was July 1, 2020.

Given the new CEQA requirements, a separate traffic operations analysis has been completed and documented in the *Cheval Blanc Beverly Hills Specific Plan Local Transportation Assessment* (Fehr & Peers, September 2021). This traffic operations report analyzes changes to intersection LOS with development of the proposed Project and compares traffic operations with the proposed Project to both existing conditions and opening year conditions.

1.2 Project Study Area

The Project is located in the heart of the City of Beverly Hills. As shown in **Figure 1**, the Project site is bordered by South Santa Monica Boulevard on the north, North Beverly Drive on the east, North Rodeo Drive on the west, and existing developments on the south. The Project study area is generally bounded by North Santa Monica Boulevard to the north, North Cañon Drive to the east, North Rodeo Drive to the west, and Brighton Way to the south. **Figure 1** displays the study area and the locations of the study intersections in the immediate vicinity of the Project site.



Legend

Project Location

Study Intersections

Figure 1

Project Location and Study Intersections

1.3 Analysis Scenarios

The following scenarios are considered in the analysis of transportation impacts:

- **Existing (2019) Conditions** – Existing conditions is based on traffic volume estimates that reflect 2019 conditions.[1]
- **Existing (2019) plus Project Conditions** – This scenario reflects the changes to Project-generated travel demands under Existing (2019) conditions with the land use and site access changes proposed under the Project.
- **Cumulative (2026) Conditions** – Future traffic projections were developed to reflect the year 2026. This scenario reflects future travel demands from regional growth and related projects in the vicinity of the Project site by the anticipated Project opening year of 2026.
- **Cumulative (2026) plus Project Conditions** – This scenario reflects the changes to Project-generated travel demands in the year 2026 with the land use and site access changes proposed under the Project.

[1] Due to the statewide stay-at-home order and social distancing measures issued by the Governor of California and Los Angeles County Department of Health to slow the spread of COVID-19, data collection in 2020 or early 2021 would not reflect typical travel conditions in the study area. Therefore, traffic counts for the study intersections were compiled from available data collected at various times from before the COVID-19 pandemic to estimate travel demand under existing conditions. Historic counts were grown to reflect 2019 conditions using an average annual growth rate of 0.5% per year.

2. Existing & Planned Transportation Conditions

This chapter discusses the existing plans and policies related to transportation in the City of Beverly Hills and the transportation conditions in the Project study area. This discussion addresses the existing and planned roadway network, the bus transit network, and the bicycle and pedestrian facilities in the study area. In addition, in April 2021, the City adopted a citywide Complete Streets Plan that identifies goals and policies and potential improvements in the study area to enhance active transportation and transit service that are included in this chapter.

2.1 Existing Plans & Policies

This section summarizes state, regional, and local regulatory framework that serve as the foundation for evaluating transportation impacts under CEQA.

2.1.1.1 California Environmental Quality Act

CEQA generally requires state and local government agencies to inform decision makers and the public about the potential environmental impacts of proposed projects, and to reduce those environmental impacts to the extent feasible. CEQA Section 15064.3 describes specific considerations for determining a project's transportation impacts. Generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts. For the purposes of this section, "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel (CEQA 2019).

2.1.1.2 California Senate Bill 743

Senate Bill 743 (SB 743) directed the Office of Planning and Research (OPR) to develop revisions to the CEQA Guidelines to establish new criteria for determining the significance of transportation impacts and define alternative metrics for traffic analysis. On September 27, 2013, California Governor Jerry Brown signed SB 743 into law and started a process that changed transportation impact analysis as part of CEQA compliance. These changes include elimination of auto delay, level of service (LOS), and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts for land use and transportation projects in California.

In 2016, OPR released the Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA. Of particular relevance was the updated text of the new Section 15064.3 that relates to the new transportation impact metric of VMT and describes the determination of the significance of transportations impacts and mitigation measures. To help lead agencies with SB 743 implementation, the Governor's Office of Planning and

Research (OPR) produced a *Technical Advisory.*[2] More information on the determination of the significance of impacts is included in Chapter 4, Vehicle Miles Traveled.

2.1.1.3 California Assembly Bill 32 and Senate Bill 375

Assembly Bill 32 (AB 32), also known as the California Global Warming Solutions Act of 2006, is California's major initiative for reducing greenhouse gas (GHG) emissions. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020, a reduction of approximately 15% below emissions expected under a "business as usual" scenario.

As stated in AB 32, the California Air Resources Board (CARB) must adopt regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. The full implementation of AB 32 will help mitigate risks associated with climate change, while improving energy efficiency, expanding the use of renewable energy resources, cleaner transportation, and reducing waste (CARB 2018).

Signed in 2008, Senate Bill 375 (SB 375) directs CARB to develop regional GHG emission reduction targets to be achieved by passenger vehicles by 2020 and 2035. SB 375 also directs each of California's major metropolitan planning organizations (MPOs) to prepare a sustainable communities strategy (SCS) that identifies a growth strategy to meet emissions targets, to be included in each MPOs regional transportation plan (RTP).

In 2010, CARB adopted regional targets for reducing GHG emissions by 2020 and 2035, using 2005 as a base year. The Southern California Association of Governments (SCAG) was assigned targets of an 8% reduction in GHGs from transportation sources by 2020 and a 13% reduction in GHGs from transportation sources by 2035.

On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. The Southern California Association of Governments (SCAG) was assigned targets of an 8 percent reduction in per capita GHG emissions from passenger vehicles by 2020 and a 19 percent reduction in per capita GHG emissions from passenger vehicles by 2035. In the SCAG region, SB 375 also provides the option for the coordinated development of subregional plans by the subregional councils of governments and the county transportation commissions to meet SB 375 requirements. On September 3, 2020, the SCAG's Regional Council formally adopted the 2020-2045 RTP/SCS titled Connect SoCal, which meets the requirements of SB 375.

2.1.1.4 Southern California Association of Governments (SCAG) 2020-2045 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS)

On September 3, 2020, the SCAG's Regional Council formally adopted the 2020-2045 RTP/SCS titled Connect SoCal. The 2020-2045 RTP/SCS builds upon the progress made through implementation of the 2016-2040 RTP/SCS and includes 10 goals focused on promoting economic prosperity, improving mobility, protecting the environment, and supporting healthy/complete communities. The SCS implementation strategies include focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, and supporting implementation of sustainability policies. The SCS establishes a land use vision of center focused placemaking, concentrating growth in and near Priority Growth Areas, transferring of development rights, urban

[2] Governor's Office of Planning and Research, *Technical Advisory on Evaluating Transportation Impacts in CEQA*, 2018.

greening, creating greenbelts and community separators, and implementing regional advance mitigation (SCAG 2020).

2.1.1.5 LA Metro First Last Mile Strategic Plan

The *LA Metro First Last Mile Strategic Plan* (Metro, SCAG 2014) outlines an approach for identifying barriers and planning for/implementing improvements for connecting transit services to nearby trip origins (e.g., an individual's home) and destinations (e.g., an individual's place of employment). Examples of first/last mile improvements include but are not limited to: pedestrian and bicycle infrastructure, signage and wayfinding, and shared use services (e.g., car share). The First Last Mile Plan developed what is known as "The Pathway," a proposed countywide transit access network designed to enhance transit accessibility. The Pathway is a series of active transportation improvements that connect to and from Metro Rail and BRT stations.

Within the study area, the City of Beverly Hills worked with Metro to develop the *Wilshire/Rodeo Station Pathway Plan* for the Wilshire/Rodeo Station. The Pathway Plan notes that Wilshire Boulevard would benefit from numerous first/last mile improvements, including bus stop enhancements, high-visibility crosswalks, street furniture, and street trees where needed. The Pathway Plan also identifies a series of bicycle improvements that will help facilitate station access, such as intersection treatments to create a bicycle-friendly environment.

2.1.1.6 City of Beverly Hills General Plan - Circulation Element

The *City of Beverly Hills General Plan Circulation Element* (City of Beverly Hills, 2010) has two overarching objectives: that the neighborhoods of Beverly Hills should be preserved and enhanced, including limiting negative effects caused by vehicles. Secondly, vehicles should move into, out of, or through Beverly Hills as expeditiously as possible. The Circulation Element identifies the following goals that are relevant to this study:

- **CIR 1 Circulation System**: Provide a safe and efficient roadway circulation system within the City.
- **CIR 2 Transit**: Development of a safe, comprehensive, and integrated transit system that serves as an essential component of a multi-modal mobility system within the City.
- **CIR 3 Neighborhood Traffic Management**: An improved community character and quality of life in City neighborhoods through the implementation of traffic management techniques.
- **CIR 6 Transportation Demand Management (TDM)**: A reduction in single-occupant motor vehicle travel in the City through Transportation Demand Management (TDM) that ensures efficiency of the existing transportation network and promotes the movement of people instead of personal automobiles.
- **CIR 7 Pedestrians**: A safe and comfortable pedestrian environment that results in walking as a desirable travel choice, particularly for short trips, within the City.
- **CIR 8 Bikeways**. An integrated, complete, and safe bicycle system to encourage bicycling within the City.

2.1.1.7 Complete Streets Planning in Beverly Hills

In April 2021, the City of Beverly Hills adopted a citywide Complete Streets Plan. The *City of Beverly Hills Complete Streets Plan* (City of Beverly Hills, 2021) creates a blueprint for transportation improvements that balance the needs of all road users: bicyclists, pedestrians, transit riders, and motorists. The goal of the Complete Streets Plan is to provide more options for people to choose the mode that best works for their trip type, and a network of streets where individual modes will be prioritized.

The Complete Streets Plan identifies the following goals that are relevant to this study:

- Goal B1: Provide a Safe and Efficient Bicycle Circulation System Within the City
- Goal B2: Provide a Holistic and Connected Bicycle Network
- Goal B3: Expand Bike Parking
- Goal B4: Support and Encourage Bicycle Transportation
- Goal P1: Improve Pedestrian Safety
- Goal P2: Make Walking a Desirable Travel Choice
- Goal P3: Enhance Sidewalks as Public Spaces
- Goal T1: Provide First/Last Mile Connections
- Goal T2: Improve the Rider Experience
- Goal T3: Increase Transit Ridership
- Goal V1: Reduce Traffic Congestion
- Goal V2: Harness the Power of Data and Technology
- Goal V3: Support Safe, Complete, Livable, Sustainable, and Quality Neighborhoods

The Complete Streets Plan identifies a series of bicycle improvements that will help facilitate access to the Wilshire/Rodeo Station. The Complete Streets Plan also identifies pedestrian corridors to enhance the overall pedestrian experience. Potential improvements could include new and upgraded sidewalks, tightened curb radii to slow vehicle speeds, and mid-block crossings, among others.

The Complete Streets Plan identifies North Santa Monica Boulevard, Wilshire Boulevard, Burton Way, Olympic Boulevard, and Beverly Drive as the City's proposed Transit Enhanced Network. Bus stop enhancements, such as shelter, seating, lighting, trash/recycling bins, poles/signs with route information and schedules, a system map (or link to one), a paved boarding area, and ADA-compliant pedestrian connections, are identified along these corridors.

2.1.1.8 City of Beverly Hills Master Plan of Streets

The City of Beverly Hills Master Plan of Streets (Master Plan of Streets, City of Beverly Hills, 1973) defines the functional class of all City streets, highways, and alleys. The City Engineer may approve and allow variations from the requirements of the Master Plan of Streets as issues arise. Development of the proposed Project would require an amendment to the Master Plan of Streets to accommodate the alley relocation, and to reflect existing curb radii and overall roadway right of way width on South Santa Monica Boulevard.

2.2 Transportation Facilities

A comprehensive data collection effort was undertaken to identify existing transportation conditions in the vicinity of the proposed Project. The assessment of existing conditions relevant to this study includes an inventory of the street system and traffic volumes at the study intersections. Existing public transit service and bicycle and pedestrian facilities are also described.

2.2.1 Existing Street System

The Project is in the Beverly Hills Business Triangle and served by a grid system of streets. Major roadways within the study area are shown above in **Figure 1** and described below.

- ***South Santa Monica Boulevard*** or "Little Santa Monica Boulevard" parallels North Santa Monica Boulevard through the City of Beverly Hills and would provide the primary access to the Project site. The roadway begins east of Moreno Drive and becomes Burton Way at Rexford Drive. The roadway has two travel lanes in each direction. The roadway is classified as a Principal Arterial adjacent to the Project site.
- ***Rodeo Drive*** runs north-south through the City of Beverly Hills. The roadway begins at the intersection with Sunset Boulevard and terminates just south of the south City limit at the intersection with Beverwil Drive. Within the study area, the roadway has two travel lanes in each direction. The roadway is classified as a local street within the study area.
- ***Beverly Drive*** runs north-south through the City of Beverly Hills. The roadway begins in the Beverly Crest neighborhood of the City of Los Angeles and terminates just north of Interstate 10, also in the City of Los Angeles. Within the study area, the roadway has two travel lanes in each direction and is classified as a local street north of South Santa Monica Boulevard and a Minor Arterial from South Santa Monica Boulevard to the south City limit.
- ***North Santa Monica Boulevard*** is a major north-south roadway and is referred to as North Santa Monica Boulevard in the City of Beverly Hills. Within the study area, this roadway generally travels in a southwest to northeast direction. To the west, Santa Monica Boulevard continues outside of the study area through the City of Los Angeles where it connects to the Interstate 405 and extends into the City of Santa Monica, where it terminates. To the east, Santa Monica Boulevard continues into the City of West Hollywood and eventually terminates east of US Highway 101. Within the study area, the roadway has two travel lanes in each direction in the City of Beverly Hills and three travel lanes in each direction in the City of Los Angeles. The roadway is designated as a Principal Arterial in the City of Beverly Hills.
- ***Cañon Drive*** runs north-south through the City of Beverly Hills. The roadway begins at the intersection with Sunset Boulevard and terminates just north of the south City limit at the intersection with Beverly Drive. Due to construction of the Metro D Line, Cañon Drive is currently closed just north of the Wilshire Boulevard intersection. Within the study area, the roadway has two travel lanes in each direction and the roadway is classified as a local street.
- ***Brighton Way*** runs northeast-southwest through central Beverly Hills. It begins at Wilshire Boulevard in the west and terminates at Crescent Drive in the east. Brighton Way is one-way and flows in the southwest direction. Within the study area, the roadway provides two travel lanes and is classified as a local street.

2.2.2 Existing Intersection Volumes and Lane Configurations

Due to the statewide stay-at-home order and social distancing measures issued by the Governor of California and Los Angeles County Department of Health to slow the spread of COVID-19, data collection in 2020 or early 2021 would not reflect typical travel conditions in the study area. Therefore, traffic counts for the study intersections were compiled from available data collected at various times from before the COVID-19 pandemic to estimate travel demand under existing conditions. Historic counts were grown to reflect 2019 conditions using an average annual growth rate of 0.5% per year. Where traffic count data was not available, turning volumes were estimated based on balancing with adjacent intersections and observed traffic flows. Intersection turning movement counts were collected at the following times:

- Weekday morning peak period (7:00 to 9:00 AM)
- Weekday evening peak period (4:00 to 6:00 PM)

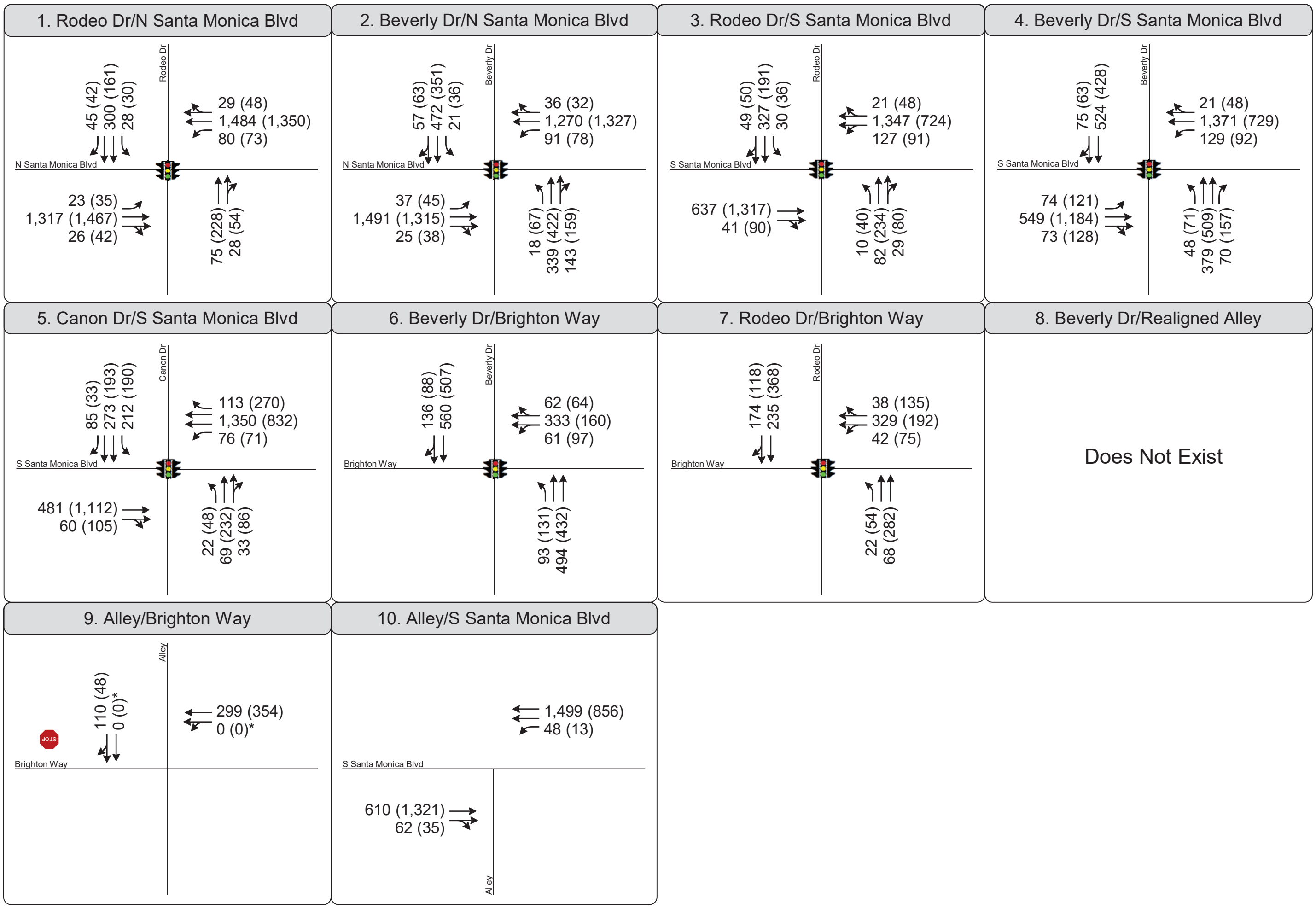
Existing lane configurations and signal controls were obtained through field observations. **Figure 2** presents the existing peak periods turning movement volumes, corresponding lane configurations, and traffic control devices.

2.2.3 Cumulative Traffic Volume Forecasts

Future traffic projections were developed to reflect cumulative conditions. The year 2026 was used to forecast cumulative conditions to reflect the expected opening year of the proposed Project. The growth in traffic in the study area reflects future travel demands from regional growth and related projects in the vicinity of the Project site. A variety of sources were consulted to develop the cumulative traffic forecasts. These sources include:

- Historic traffic counts, grown to reflect Existing (2019) conditions
- Traffic from approved and pending projects in the City of Beverly Hills, City of Los Angeles, and City of West Hollywood
- Ambient growth in existing traffic volumes to reflect growth in regional traffic (a growth rate of 0.5% per year was applied to the 2019 traffic volumes to reflect this ambient growth)

The list of related projects used to develop the cumulative traffic forecasts is provided in **Appendix A**. The related projects and their expected trip generation were obtained from the Cities of Beverly Hills, West Hollywood, and Los Angeles. Traffic volumes for cumulative (2026) conditions are shown in **Figure 3**.



* Data was not available for volumes on the alley south of Brighton Way, so these turning movements are shown 0. No changes to these volumes would occur as a result of the proposed project.

AM (PM) Peak Hour Traffic Volume

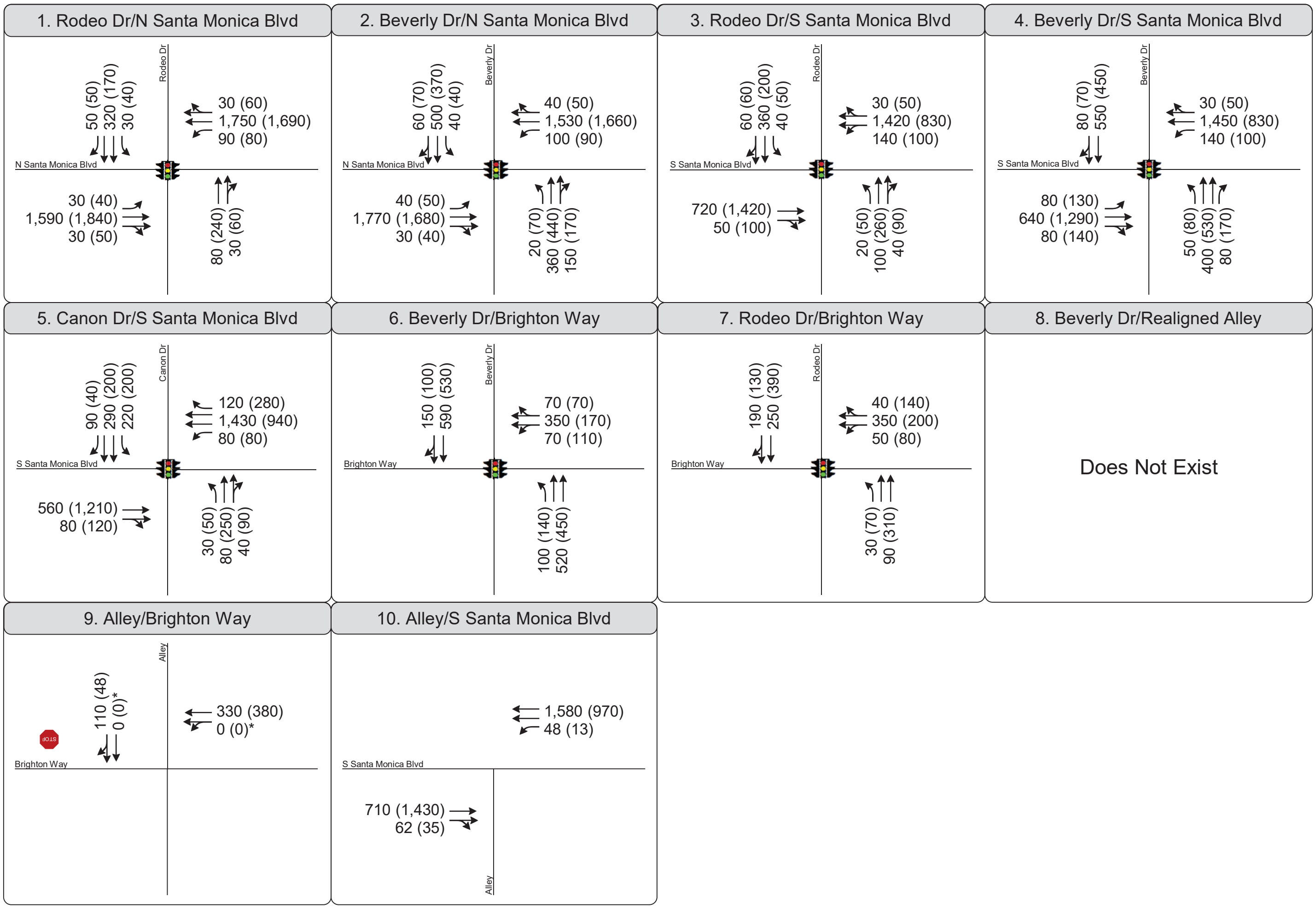
Lane Configuration

Stop Sign

Signalized

Figure 2

Peak Hour Traffic Volumes and Lane Configurations - Existing (2019) Conditions



* Data was not available for volumes on the alley south of Brighton Way, so these turning movements are shown 0. No changes to these volumes would occur as a result of the proposed project.

AM (PM) Peak Hour Traffic Volume

Lane Configuration

Stop Sign

Signalized

Figure 3

Peak Hour Traffic Volumes and Lane Configurations - Cumulative (2026) Conditions

2.2.4 Existing Transit Service

Several transit lines operate within the study area with service provided by the Metropolitan Transportation Authority (Metro). Every six months, typically in June and December, Metro Operations undergoes a service change program where bus schedules are adjusted to accommodate ridership demands and improve connections between Metro Bus and Rail. Metro provides service on multiple bus lines with frequent service (at least every 15 minutes during weekday peak hours) in the study area. Due to the reduction in ridership caused by the COVID-19 pandemic and related lockdown orders, Metro reduced service on many routes in 2020. However, in response to increasing ridership demands later in the year, Metro implemented increased service beginning December 2020. In February 2021, Metro's Board adopted Motion 27.1,[3] committing to restoring pre-pandemic-level 7 million annualized revenue service hours for bus lines by September 2021, and in its April 14, 2021[4] Budget Development Update designated funding to achieve this goal.

In addition to restoring transit service, Metro adopted the NextGen Bus Plan in 2020, a once-in-a-generation overhaul of bus routes and service design concepts intended to provide faster and more frequent bus service, including during off-peak periods, better reliability and accessibility to key destinations, better connectivity with municipal transit operators, and improved perception of safety onboard buses and at bus stops. Some of the bus routes in Beverly Hills were modified as a result of the NextGen Bus Plan. The NextGen Bus Plan recently went into operation in June 2021 discontinued Line 16 bus service west of San Vicente Boulevard (service continues east/west on Third Street between West Hollywood and downtown Los Angeles at six to 10-minute frequencies.) A total of 14 stops for Line 16 were eliminated in the City of Beverly Hills on Burton Way and North Santa Monica Boulevard. A new line, Line 617, provides service between the Expo Light Rail Station on Venice Boulevard and a new mini-transit hub located at Cedars Sinai Hospital, and then continues west through Beverly Hills along Burton Way and Beverly Drive. Line 617 operates every 45 minutes on weekdays and every 60 minutes on weekends. This new service on Burton Way replaces the service formerly provided by Line 16.

The service routes and frequencies that reflect these recent service changes, as well as service frequencies in 2019 and 2020 prior to the pandemic that Metro has committed to returning to by September 2021, are described below. For lines with stops within one half-mile of the proposed Project, walking distances are also provided. **Figure 4** depicts existing transit service in the City of Beverly Hills.

- ***Metro Rapid Line 704*** – Metro Line 704 provides express bus service between Downtown Los Angeles and the City of Santa Monica with principal service along North Santa Monica Boulevard as part of Metro's Rapid network. The line travels along Sunset Boulevard and Santa Monica Boulevard connecting the communities of downtown Los Angeles, Echo Park, Silver Lake, West Hollywood, Beverly Hills, Century City, Westwood, West Los Angeles, and Santa Monica. As of the June service changes, buses operate along North Santa Monica Boulevard every 20 minutes during peak periods and every 20 to 30 minutes off-peak/weekends. The closest Line 704 bus stop to the proposed Project is located on the north side of North Santa Monica Boulevard at Crescent Drive (0.3 miles).

[3] MOTION 27.1: http://media.metro.net/board/recap/2021/2021-0225-recap-rbm.pdf
[4] APRIL 14, 2021 BUDGET DEVELOPMENT UPDATE: https://media.metro.net/2021/6-Apr-21-FY22 budget-item.pdf

- ***Metro Rapid Line 720*** – Line 720 provides an express service between Downtown Los Angeles and the City of Santa Monica with principal service along Wilshire Boulevard as part of Metro's Rapid network. The line travels along Wilshire Boulevard connecting the communities of Beverly Hills, Boyle Heights, Brentwood, Downtown Los Angeles, Hancock Park, Koreatown, Park La Brea, Santa Monica, and Westwood. As of the June service changes, buses operate every five minutes along Wilshire Boulevard during the peak periods and every seven to ten minutes off-peak/weekends. The closest Line 720 bus stop to the proposed Project is located on the northeast corner of the intersection of Wilshire Boulevard & South Santa Monica Boulevard (0.4 miles).

- ***Metro Line 4*** – Line 4 provides service between downtown Los Angeles and west Los Angeles with service along North Santa Monica Boulevard. It travels along Santa Monica Boulevard connecting the communities of Echo Park, Silver Lake, West Hollywood, Beverly Hills, Century City, and West Los Angeles. Bus service in the early morning and owl service travels further west into the City of Santa Monica. Line 4 is a local service bus and has frequent stops along Santa Monica Boulevard. Most stops are approximately one to two blocks apart. As of the June service changes, bus frequency is basically the same on both weekdays and weekends. Service is provided approximately every 12 minutes during daytime hours, including weekends. Evening service is reduced to every 15 to 20 minutes, owl service is every 25 to 30 minutes. The closest stops to the proposed Project site are located on both sides of North Santa Monica Boulevard at the intersection with Camden Drive (0.3 miles) and on the north side of the street (westbound) at Crescent Drive (0.3 miles).

- ***Metro Line 20*** – Line 20 provides service between downtown Los Angeles and Westwood with service along Wilshire Boulevard. It travels along Wilshire Boulevard connecting the communities of Beverly Hills, Los Angeles, Hancock Park, Park La Brea, UCLA, West Los Angeles, and Westwood. Early morning, late night and owl service is extended to Santa Monica along Wilshire Boulevard. Line 20 is a local service bus and follows the same route as Metro Rapid Line 720, but with more frequent stops. Most stops are approximately one to two blocks apart. As of the June service changes, service is provided every 10 to 12 minutes during peak hours on both weekdays and weekends. Off-peak headways are approximately 30 minutes to an hour. The closest Line 20 bus stop to the proposed Project is located on the south side of Wilshire Boulevard at Rodeo Drive (0.4 miles).

- ***Metro Line 617*** – Line 617 provides services between Beverly Hills and Culver City. The line travels along Beverly Dr, Santa Monica Boulevard, Crescent Drive, Burton Way, 3rd Street, San Vicente, La Cienega and Robertson Boulevard. Line 617 connects the communities of Beverlywood, Beverly Hills, Pico—Robertson, La Cienega Heights, and Downtown Culver City. As of the June service changes, weekday service is approximately every 45 minutes during both peak and off-peak hours. Weekend service is every hour. Within the study area, the closest stop to the Project site is located on the west side of Beverly Drive just north of Brighton Way in the southbound direction (0.1 miles).

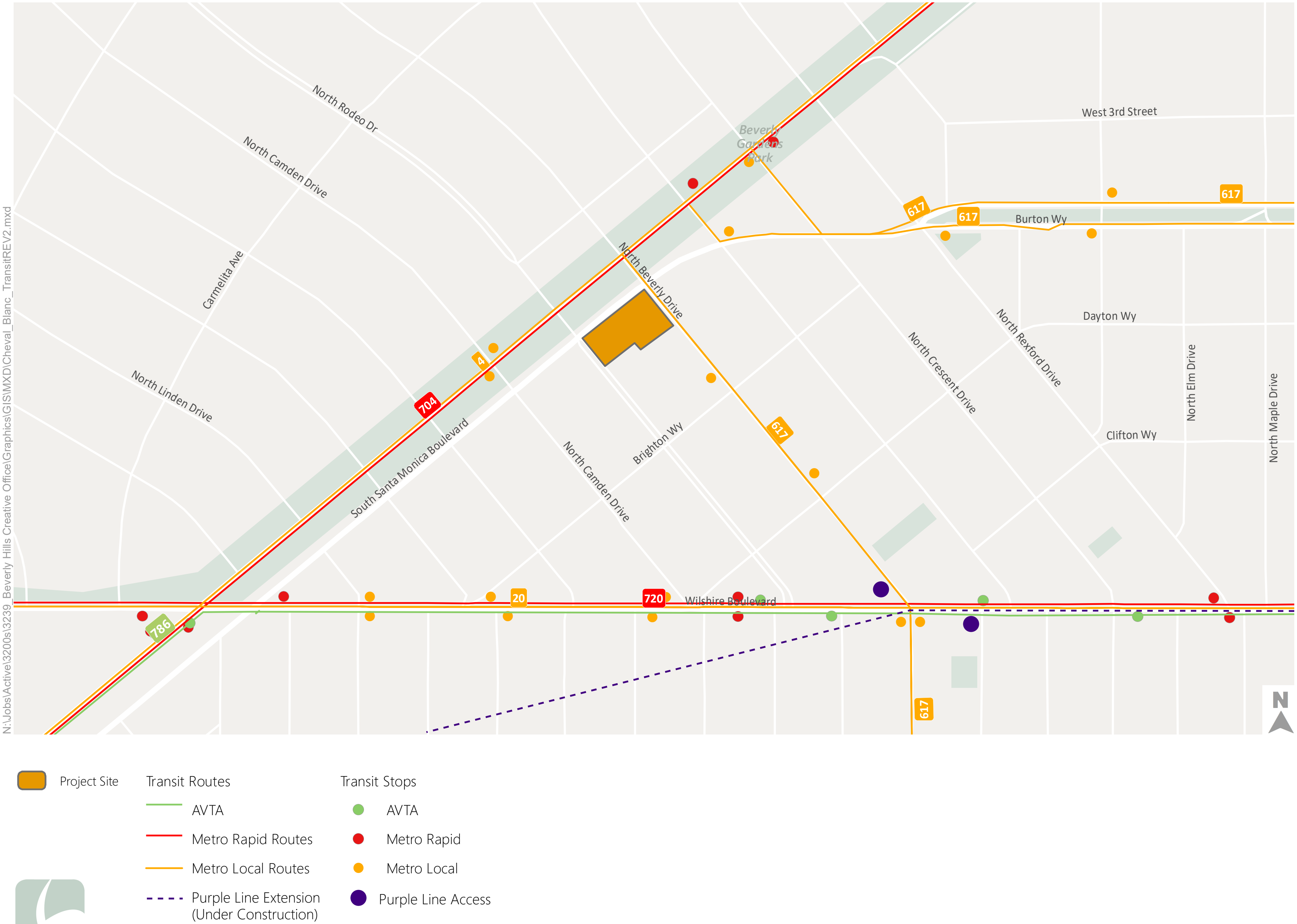


Figure 4 Existing Transit Service in Project Study Area

- ***Antelope Valley Transit Authority (AVTA) Line 786*** – AVTA Line 786 provides commuter bus service from the Antelope Valley (Lancaster / Palmdale) to West Los Angeles and Hollywood along Santa Monica and Wilshire Boulevards. There are 5 daily roundtrips on weekdays – there is no weekend service. Morning trips in Beverly Hills arrive between the hours of 6 and 8 AM with 20-to-30 minute headways, evening service to the Antelope Valley depart between 3 and 5:15 PM with 20-to-40 minute headways. The closest Line 786 bus stop to the proposed Project is located on the north side of Wilshire Boulevard at Rodeo Drive (0.4 miles).

2.2.5 Planned Transit Service

The D Line Extension will extend the existing D Line (formerly, the Purple Line) subway from its current terminus at Wilshire/Western to a proposed new station in Westwood. Sections 1 and 2 of the D Line Extension are currently under construction. Section 1 is expected to begin operations in 2023 and includes one new station in Beverly Hills at Wilshire/La Cienega and two new stations in Los Angeles (Wilshire/La Brea and Wilshire/Fairfax). Section 2 is expected to begin operations in 2025 and includes one new station in Beverly Hills at Wilshire/Rodeo and one just west of the City at Century City/Constellation. Section 3 of the D Line Extension project is currently in pre-construction and is anticipated to open for operations in 2026 with two new stations (Wilshire/Westwood and Wilshire/VA Hospital). The station planned for Wilshire/Rodeo is closest to the proposed Project site. In November 2020, the City approved the construction of the North Portal which would provide an entrance/exit on the west side of North Beverly Drive, within the existing street right-of-way, north of Wilshire Boulevard. The walking distance between the Project site and North Portal is 0.4 miles.

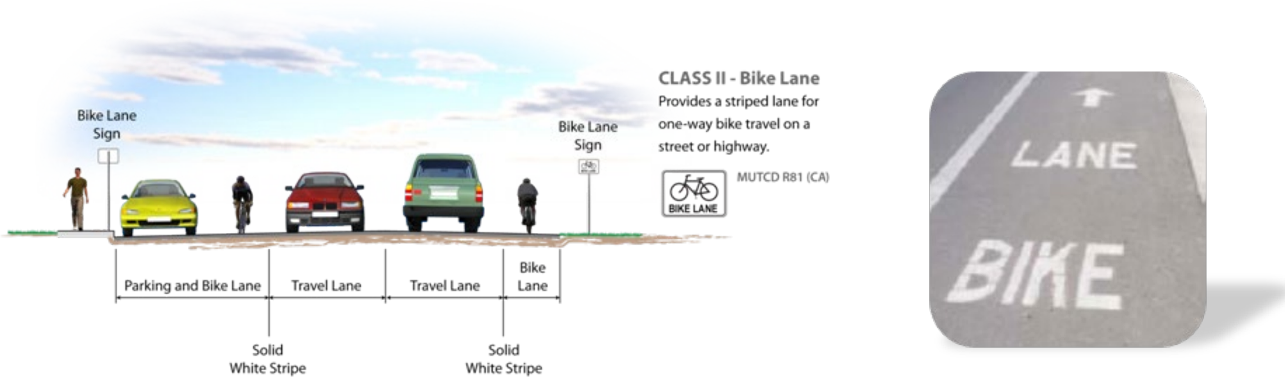
The *City of Beverly Hills Complete Streets Plan* identifies North Santa Monica Boulevard and Beverly Drive as part of the City's proposed Transit Enhanced Network. Bus stop enhancements, such as shelter, seating, lighting, trash/recycling bins, poles/signs with route information and schedules, a system map (or link to one), a paved boarding area, and ADA-compliant pedestrian connections, are identified along North Santa Monica Boulevard, including the bus stops on Cañon Drive at both North Santa Monica Boulevard and South Santa Monica Boulevard, closest to the Project site.

2.2.6 Existing Bicycle and Pedestrian Facilities

Bicycle facilities generally consist of four types of facilities, which are outlined below:

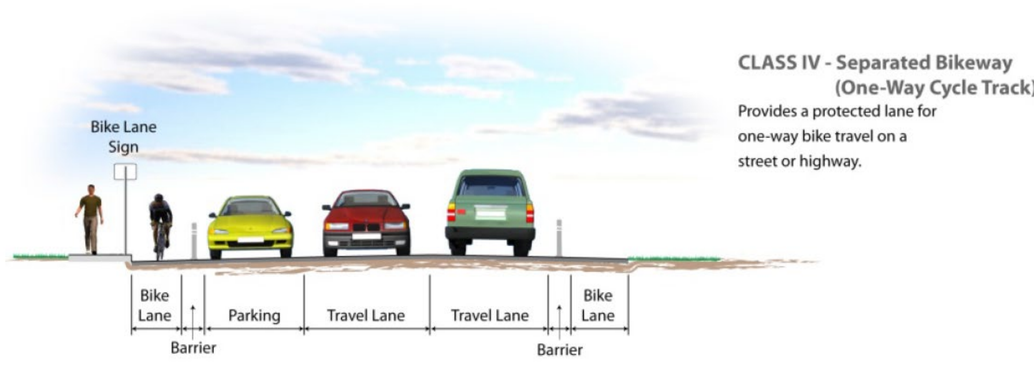
- *Bike or Shared Use Paths* provide a separate right-of-way and is designated for the exclusive use of bicycles and pedestrians with vehicle and pedestrian crossflow minimized. Generally, the recommended pavement width for a two-directional shared use path is ten feet.

- *Bike Lanes* provide a restricted right-of-way and are designated for the use of bicycles with a striped lane on a street or highway. Adjacent vehicle parking and vehicle/pedestrian crossflow is permitted.



- *Bike Route or Signed Shared Roadways* provide for a right-of-way designated by signs or shared lane pavement markings, or "sharrows," for shared use with pedestrians or motor vehicles.

- *Separated Bikeways or Cycle Tracks* provide on-street bicycle facilities that are separated from vehicle travel by a vertical barrier to provide a protected bicycle lane. At intersections, the barrier is typically removed to allow vehicles to enter the bike lane to make a right-turn.



Within the study area, North Santa Monica Boulevard has Class II bicycle lanes that are enhanced through green paint in the City of Beverly Hills (from the western City limit just west of the Project site to the eastern City limit at Doheny Drive). The closest bikeshare station to the Project site is at the corner of South Santa Monica Boulevard & Camden Drive.

A majority of the roadways within the study area have sidewalks and crosswalks. There are sidewalks along the roadways that border the site including South Santa Monica Boulevard, North Beverly Drive, and North Rodeo Drive. The exception is the south side of North Santa Monica Boulevard, which lacks sidewalks. There are also crosswalks and pedestrian "walk/don't walk" indicators at the signalized intersections in the study area. East-west crosswalks across North Santa Monica Boulevard provide connectivity to the north-south sidewalks, despite the lack of sidewalks on the south side of North Santa Monica Boulevard itself. The signalized crossings for pedestrians, including mid-block crossings and intersections that operate with a pedestrian scramble (all-walk) signal phase in the Project area are shown in **Figure 5**.

A pedestrian pathway is also located through the Beverly Gardens Park located north of the Project site along North Santa Monica Boulevard. In 2018, as part of the North Santa Monica Boulevard Reconstruction Project, the City completed the implementation of eight raised crosswalks connecting the decomposed granite pedestrian path through Beverly Gardens Park across intersections.

Existing Signalized Crossing

Figure 5

Pedestrian Crossings in Study Area

2.2.7 Planned Bicycle and Pedestrian Facilities

In April 2021, the City of Beverly Hills adopted a citywide Complete Streets Plan. The *City of Beverly Hills Complete Streets Plan* contains a vision for transportation improvements that balance the needs of all road users including bicyclists and pedestrians.

Within the study area, the Complete Streets Plan identifies a series of bicycle improvements that will improve facilities for bicyclists traveling in the City and help facilitate access to the Wilshire/Rodeo Station, including a new Class IV protected bicycle lane on Beverly Drive, a new Class II bicycle lane on Cañon Drive, and a new Class III bicycle boulevard on Brighton Way.

The Complete Streets Plan also identifies pedestrian corridors to enhance the overall pedestrian experience. Pedestrian corridor improvements are envisioned on South Santa Monica Boulevard. Potential improvements could include new and upgraded sidewalks, tightened curb radii to slow vehicle speeds, and mid-block crossings, among others.

3. Proposed Project Transportation Characteristics

This chapter presents the land uses and trip generation of the proposed Project and describes the total number of vehicle trips that would be generated by the proposed land uses in comparison to existing uses and historic uses on the Project site.

3.1 Project Overview

The Project is located in the heart of Beverly Hills. The 1.277-acre Project site is bordered by South Santa Monica Boulevard on the north, North Beverly Drive on the east, North Rodeo Drive on the west, and existing developments on the south. The proposed Project would provide a luxury hotel and multiple-use development, compatible with the scale and massing of the surrounding neighborhood and providing pedestrian-friendly amenities and uses along the street level. The Project consists of a single four- to nine-story structure including a luxury hotel, private membership club, appurtenant hotel uses including a day spa and wellness center, and uses open to the general public, including restaurant space and retail. The portion of the existing north-south alley that bisects the Project site is currently accessed from South Santa Monica Boulevard and would be relocated to the southern portion of the Project site. The new access point to the alley would be from the west side of North Beverly Drive.

3.1.1 Project Land Uses

The Project allows for a maximum allowable floor area of 220,949 square feet (sf) and a maximum of 115 hotel rooms. The Project also includes a private membership club with up to 500 members. Dedicated club facilities include a 36-seat screening room, a bar and lounge, and social spaces. Other Project features include appurtenant hotel uses include a day spa and wellness center, uses open to the general public including 25,094 sf of restaurant space (indoor and outdoor) and 24,976 sf of retail, and 178 parking spaces located in a subterranean garage. The Project opening year is expected to be 2026.

The proposed Project would replace 56,787 sf of existing commercial space in four structures located at:

- 456 North Rodeo Drive: 6,895 sf commercial with 9 surface parking spaces that is currently occupied.
- 468 North Rodeo Drive: 20,265 sf commercial with 6 surface parking spaces that is currently vacant.
- 449, 451, and 453 North Beverly Drive: 6,276 sf commercial that is currently vacant.
- 461-465 North Beverly Drive: 23,351 sf institutional with 5 surface and 45 underground spaces with driveway access on South Santa Monica Boulevard that is currently occupied.

A total of 33,436 sf of retail space is being removed, equal to a net reduction of 8,460 sf of retail on the site should the proposed Project be built.

3.1.2 Project Trip Generation

Trip generation for the Cheval Blanc Project uses were generally based on the most recent edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (10th Edition). Specific ITE Land Use codes for each use are provided in **Table 1**. ITE trip generation rates estimate the total number of trips to a given land use for all trip types, including trips made by employees, residents, or visitors to the site.

The only proposed use that was not estimated using ITE rates was the 500-member private membership club. The club provides access to a screening room, bar, lounge and social spaces, and access to the hotel's wellness center and spa. The club will have the ability to hold a limited number of members-only events per year based on the size of the event. Due to the unique nature of the programmed activities, there is not a comparable trip rate provided by ITE. A custom trip generation rate was developed for the private membership club for member trips based on the expected daily member visitation as identified in the *Parking Demand Analysis Study* (July 16, 2020) for the proposed Project. Based on the membership levels and site amenities, the membership club was estimated to generate 180 daily vehicle-trips and up to 40 vehicle-trips in a peak hour. This trip generation also assumes that members will drive alone to the Project site.

Table 1 provides the trip generation rates applied to the proposed Project.

Table 1: Trip Generation Rates

Land Use	Trip Rates		
	Daily	AM	PM
Hotel[1]	8.36	0.47	0.60
Private Membership Club[2]	0.36	0.04	0.08
Quality Restaurant[3]	83.84	0.73	7.80
Retail[4]	37.75	0.94	3.81
Day Spa[5]	14.50	1.21	1.45

Notes:
[1] Hotel trip rates based on ITE Land Use 310 – Hotel.
[2] Trip generation rates based on daily member visitation rates provided in the Cheval Blanc Initial Study.
[3] Restaurant trip rates based on ITE Land Use 931 – Quality Restaurant.
[4] Retail trip rates based on ITE Land Use 820 – Shopping Center.
[5] Day Spa trip rates based on ITE Land Use 918 – Hair Salon.

Vehicle trip generation estimates were adjusted based on a variety of factors applicable to the Project context. For one type of credit, a 20% internalization trip credit was applied to the restaurant, retail, and day spa uses. That is, it was assumed that 20% of patrons to these businesses will be hotel guests arriving by foot internally from within the hotel building, not requiring an additional vehicle trip. This rate is consistent with the internal capture rate assumed in the *Parking Demand Analysis Study*. The Mixed-Use (MXD) Trip Generation Model was also utilized to determine if this level of internalization was reasonable. The MXD Model was developed by Fehr & Peers and the

Environmental Protection Agency (EPA), and it accounts for the site context and other factors to estimate potential internalization and multimodal trip reductions. The MXD results confirmed that a 20% internal capture rate is appropriate for the mix of uses that make up the proposed Project.

A 30% pass-by credit was assumed for the retail use per the most recent edition of the ITE *Trip Generation Handbook* (3rd Edition). Pass-by trips are those vehicles already passing the proposed Project location, and therefore these are not new trips to the overall roadway network but are instead existing trips that are already in the Beverly Hills Business Triangle and will visit the proposed retail use.

An adjustment was also made based on trip generation estimates for the existing commercial uses that will be demolished to make way for the proposed Project. Because some of the existing uses are currently vacant, the trip credit has been applied only for existing, active uses to account for the vehicle trips already on the roadway network.

No additional credits have been applied to the Project trip generation. However, it should be noted that hotel and club employees who wish to travel by transit would be provided with free transit passes, and secure bicycle parking, charging facilities for e-bicycles, bicycle showers, and bicycle lockers would be provided to encourage bicycle commuting, both of which measures may reduce employee vehicle trips.

Table 2 provides the detailed trip generation estimates for the proposed Project. After making the appropriate adjustments, the maximum development proposed in the Project will generate approximately 2,360 daily vehicle trips and up to approximately 90 vehicle trips during the AM peak travel hour and approximately 220 vehicle trips during the PM peak travel hour.

These Project trips were then broken down into the following trip types: employees, visitors arriving by private vehicle and using the valet, and visitors arriving by shared mobility transportation network companies (TNC), such as Uber or Lyft. The proliferation of TNCs in recent years is important to consider in a project of this type and size. Pick-up and drop-off trips, such as those utilizing TNC services, do not utilize site parking but they still generate a vehicle trip to and from the Project site. In order to account for TNCs, it was assumed that TNCs will account for 50% of the vehicle trips generated by the restaurant, and 66.6% of the vehicle trips generated by the hotel, based on observed drive ratios provided in the *Parking Demand Analysis Study*. Since each inbound TNC trip also results in an outbound TNC trip, the demand for inbound and outbound TNC trips were estimated and the higher of the two calculations was assumed for both directions to account for TNCs that drop off a patron and leave the Project site without picking up a new passenger. The percentage of trips generated by employees traveling to the Project site was also estimated using the parking demand estimates from the *Parking Demand Analysis Study*. **Table 3** provides the distribution of Project trips by type.

Table 2: Trip Generation Estimates

Land Use	Quantity	Trip Estimates						
		Daily	AM			PM		
			In	Out	Total	In	Out	Total
Hotel	115 rooms	961	32	22	54	35	34	69
Private Membership Club	500 members	180	16	4	20	32	8	40
Quality Restaurant	25,094 sf	2,104	9	9	18	131	65	196
	Internal Capture[1]	*(421)*	*(2)*	*(2)*	*(4)*	*(26)*	*(13)*	*(39)*
Retail	24,976 sf	943	14	9	23	46	49	95
	Internal Capture[1]	*(189)*	*(3)*	*(2)*	*(5)*	*(9)*	*(10)*	*(19)*
	Pass-by Reduction[2]	*(226)*	*(3)*	*(2)*	*(5)*	*(11)*	*(12)*	*(23)*
Day Spa	12,936 sf	188	8	8	16	3	16	19
	Internal Capture[1]	*(37)*	*(1)*	*(2)*	*(3)*	*(1)*	*(3)*	*(4)*
	Total Gross Vehicle Trips	**3,503**	**70**	**44**	**114**	**200**	**134**	**334**
Existing, Active Uses	30,246 sf	(1,142)	(18)	(10)	(28)	(55)	(60)	(115)
	TOTAL NET VEHICLE TRIPS	**2,361**	**52**	**34**	**86**	**145**	**74**	**219**

Notes: Detailed trip generation calculation contained in **Appendix C**.
[1] Internal capture rate assumed to be 20%.
[2] Pass-by reduction assumed to be 30% based on the ITE *Trip Generation Handbook* (3rd Edition).

Table 3: Project Trips by Type

Land Use	Vehicle Trip Estimates						
	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Total Gross Vehicle Trips	3,503	70	44	114	200	134	334
Total Estimated Employee Trips	521	10	6	16	30	20	50
Total Estimated Visitor Valet Trips	1,501	35	19	54	95	65	160
Estimated Visitor TNC Trips[1,2]	1,482	25	(19) 25	(44) 50	75	(49) 75	(124) 150
Adjusted Total Gross Vehicle Trips	**3,503**	**70**	**50**	**120**	**200**	**160**	**360**

Notes:

(1) TNCs assumed to be 50% of the vehicle trips generated by the restaurant, and 66.6% of the vehicle trips generated by the hotel, based on observed drive ratios provided in the *Parking Demand Analysis Study* technical memorandum (July 16, 2020).

(2) Where inbound and outbound trips were unequal, the higher of the two calculations was assumed for both directions to account for TNCs that drop off a patron and leave the Project site without picking up a new passenger.

While the transportation assessment only considers a trip credit for existing uses that are currently active, the trip generation of the historic uses were also estimated to illustrate the vehicle travel demand for the Project in comparison to full occupancy of the existing uses on the site. **Table 4** compares the proposed Project trip generation to the historic trip generation of the site (i.e., when all existing uses were in operation). As shown, the Project will result in a net increase of 1,359 daily trips, including 67 AM peak hour trips and 144 PM peak hour trips, as compared to the historic trip generation of the Project site.

Table 4: Project vs. Historical Site Trip Generation

Land Use	Vehicle Trip Estimates						
	Daily	AM			PM		
		In	Out	Total	In	Out	Total
Total Gross Project Vehicle Trips (Without credit)	3,503	70	50	120	200	160	360
Total Existing Uses Historic (Fully Occupied) Vehicle Trips	2,144	34	19	53	104	112	216
NET CHANGE IN SITE-GENERATED VEHICLE TRIPS	**1,359**	**36**	**31**	**67**	**96**	**48**	**144**

3.1.3 Alley Realignment

An existing north-south public alley connects South Santa Monica Boulevard and Brighton Way, parallel with North Rodeo Drive and North Beverly Drive. The alley is currently accessed via South Santa Monica Boulevard, and bisects the Project site. The Project proposes to relocate that portion of the alley that bisects the Project site and relocate it, as a public alley, so that it connects North Beverly Drive to Brighton Way. Accordingly, existing trips into the alley from South Santa Monica Boulevard will reroute with implementation of the proposed Project to instead use the new alley entrance on North Beverly Drive.

The new alley access will be located approximately 120 feet north of the existing signalized mid-block crossing on North Beverly Drive. Access from northbound North Beverly Drive will be provided by a two-way left-turn lane which, immediately north of the proposed alley entrance, transitions to a northbound left-turn pocket for vehicles turning onto South Santa Monica Boulevard. Across from the proposed alley location are two adjacent driveways for parking garages on the east side of North Beverly Drive.

The relocation of the alley will require on-street parking to be relocated or removed, potentially affecting up to five (5) parking meter spaces on North Beverly Drive. At the time parking observations were collected in early 2021, a portion of on-street parking on the west side of North Beverly Drive had been converted to outside dining space and only four (4) short-term (20 minute) parking spaces were in operation.

The alley will remain one-way in the westbound/southbound direction, and the existing exit onto Brighton Way will remain as is. Three of the existing uses within the Project site have parking in the alley. The alley parking used by existing uses within the Project site will be eliminated. Parking and valet operations located in the alley for sites adjacent to the Project site will remain unchanged. The proposed alley relocation, including the turn geometry, has been designed in accordance with City standards to ensure emergency vehicle, utility, delivery, and other service truck access.

The existing alley travel demand was obtained from Appendix IS-9: Alley Study of the *Cheval Blanc Beverly Hills Specific Plan: Initial Study* (Eyestone Environmental, 2020) (Alley Study). The Alley Study collected weekday and weekend traffic counts at the South Santa Monica Boulevard alley entrance in April and May of 2019. The following average weekday counts were observed:

- 718 vehicles per day (485 from the west / 233 from the east)
    - 91% automobile
    - 8% single-unit delivery trucks
    - 1% garbage trucks and motorcycles
- 110 vehicles in the AM peak hour (62 from the west / 48 from the east)
    - 94% automobile

    - 5% single-unit delivery trucks
    - 1% motorcycles
    - No garbage trucks observed
- 48 vehicles in the PM peak hour (35 from the west / 13 from the east)
    - 90% automobile
    - 10% single-unit delivery trucks
    - No motorcycles or garbage trucks observed

The alley demand in the mid-day peak hour was observed to be similar to and slightly higher than the PM peak hour. Daily demand and AM peak hour demand on a Saturday were observed to be only slightly lower than on a typical weekday, while the mid-day demand and PM peak hour demand was approximately the same on a Saturday as on a weekday. The alley demand on a Sunday was observed to be substantially lower (approximately 40% of the typical weekday demand).

Based on the alley travel demands observed in 2019, these vehicles were rerouted to the realigned alley entrance on North Beverly Drive. Vehicles can enter the alley from northbound or southbound North Beverly Drive and will exit the alley onto Brighton Way.

Development of the proposed Project would require an amendment to the Master Plan of Streets to accommodate the alley relocation. The Master Plan of Streets (Sheets 31 and 32) would be updated to reflect the new alley alignment. In addition, the cross-section of South Santa Monica Boulevard would be updated in the Master Plan of Streets (Sheet 53) to reflect new curb radii at the intersections with North Rodeo Drive and North Beverly Drive and reflect the right-of-way width of 71.5 feet along the western two-thirds of the Project site and 82 feet on the eastern one-third of the Project site (compared to 75 feet in current Master Plan of Streets).

3.1.4 Project Access

Visitors to the Project traveling either by private vehicle or TNC are assumed to access the Project using the motor court located on South Santa Monica Boulevard. Those traveling by private vehicle will use the valet service, and valet employees will then drive arriving guests' vehicles eastbound on South Santa Monica Boulevard and southbound on North Beverly Drive to enter the reconfigured alley and access the Project's subterranean parking. For departing guests, valet employees will use the direct outbound access from the subterranean parking to the motor court. The Project site plan is provided in **Figure 6**.

Similar to the existing alley entrance, vehicles could enter the motor court from both eastbound and westbound South Santa Monica Boulevard. Left turns out of the motor court will be prohibited such that all departing vehicles must turn right onto South Santa Monica Boulevard.

Employees at the Project will self-park in the subterranean parking garage. Employees will exit the Project using the southbound alley onto Brighton Way. Service and utility vehicles will access the Project site via the relocated alley entrance on North Beverly Drive. Full-size utility and service vehicles will use the two loading bays provided at the south end of the Project site, while smaller van-sized utility and service vehicles will use two additional loading bays provided in the below-grade parking structure.

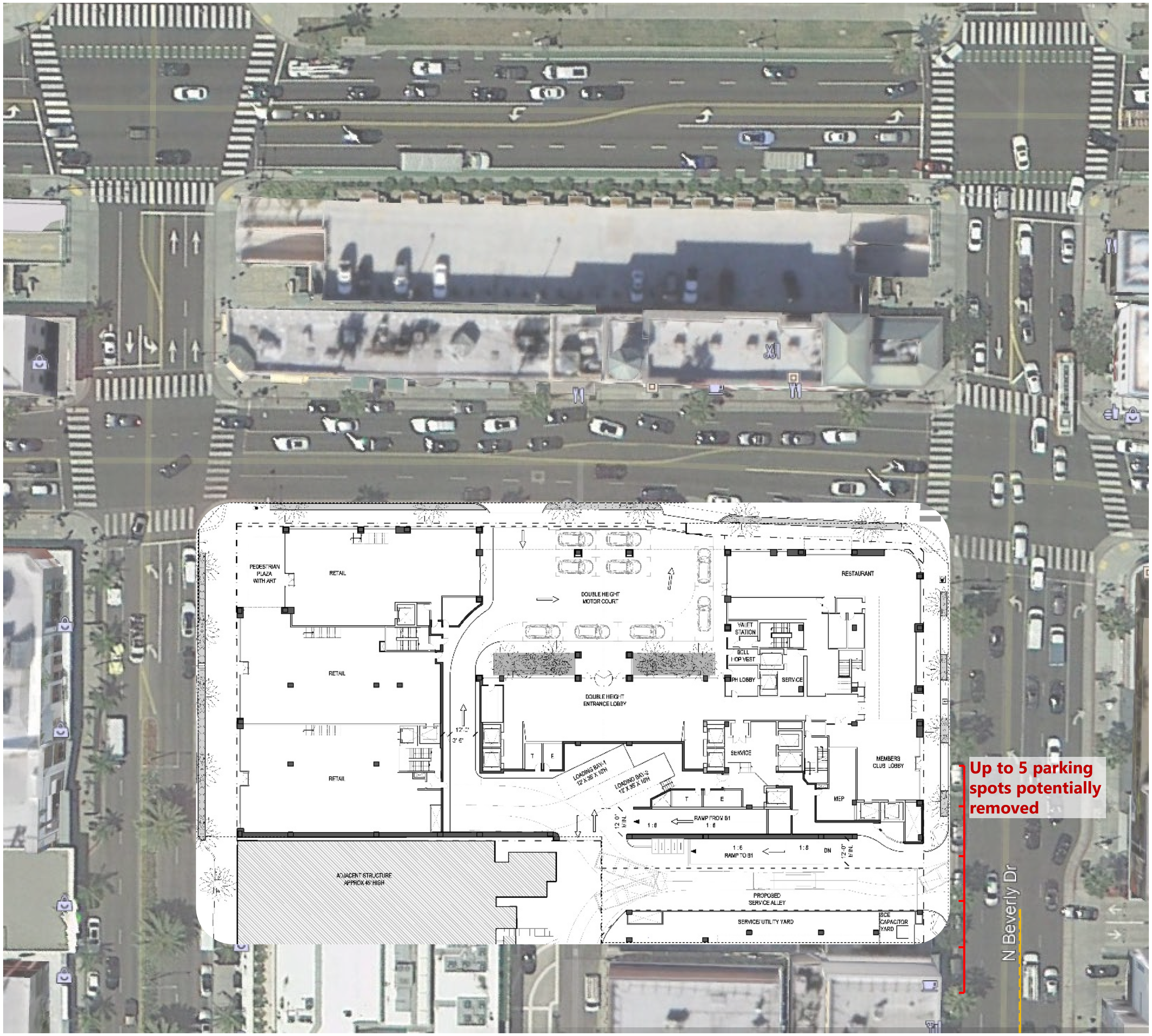


Figure 6

Site Plan

4. Vehicle Miles Traveled

This section documents the vehicle miles traveled (VMT) analysis of the Project. This VMT analysis is part of the environmental impact report being prepared for the proposed Project and follows the CEQA guidance for determining transportation impacts in accordance with SB 743.

4.1 Overview

On September 27, 2013, Governor Jerry Brown signed SB 743 into law, which initiated a process to change transportation impact analyses completed in support of CEQA documentation. SB 743 eliminates level of service (LOS) as a basis for determining significant transportation impacts under CEQA and provides a new performance metric, VMT. As a result, the State is shifting from measuring a project's impact to drivers (LOS) to measuring the impact of driving (VMT) as it relates to achieving State goals of reducing greenhouse gas (GHG) emissions, encouraging infill development, and improving public health through active transportation. To help lead agencies with SB 743 implementation, the Governor's Office of Planning and Research (OPR) produced a *Technical Advisory*.[5] This VMT analysis follows OPR guidance and the City's adopted transportation impact thresholds.[6]

4.2 CEQA Thresholds

SB 743 directed OPR to "prepare, develop, and transmit to the Secretary of the Natural Resources Agency for certification and adoption proposed revisions to the guidelines adopted pursuant to Section 21083 establishing criteria for determining the significance of transportation impacts of projects within transit priority areas… Upon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion within a transit priority area, shall not support a finding of significance pursuant to this division…".

On January 20, 2016, OPR updated the CEQA Guidelines "Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA". In this update, the evaluation of VMT was recognized as "generally the most appropriate measure of transportation impacts." On November 2017, OPR proposed a new section, 15064.3, to help determine the significance of transportation impacts. The purpose of this section is to describe specific elements for considering the transportation impacts of a given project given the use of VMT as the primary measurement. This section was updated in July 2018 and finalized in December 2018 with criteria for analyzing transportation impacts.

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[5] Governor's Office of Planning and Research, *Technical Advisory on Evaluating Transportation Impacts in CEQA*, 2018.

[6] City of Beverly Hills, *Local California Environmental Quality Act Thresholds of Significance for Transportation Impacts and Local Transportation Assessment Guidelines*, 2019, 10.

Per the guidance from OPR, "a lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply statewide." The City of Beverly Hills formally adopted the use of VMT for CEQA transportation impacts on October 10, 2019.

In accordance with Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact related to transportation if it would:

1. **Conflict with a program, plan, ordinance, or policy** addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities.
2. **Conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b) per the following criteria**:

    a. Land Use projects. Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.
    b. Transportation projects. Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.
    c. Qualitative Analysis. If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.
    d. Methodology. A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

3. **Substantially increase hazards due to a geometric design feature** (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
4. **Result in inadequate emergency access.**

A summary of potential Project impacts regarding VMT under item 2 above is described below.

4.3 VMT Methodology

The VMT analysis begins with a review of the baseline VMT metrics and VMT impact thresholds developed in conjunction with the City of Beverly Hills and based on OPR guidance and the City's adopted transportation impact thresholds. The Project is then evaluated under four VMT analysis screening options to determine if it may have a VMT impact and require further evaluation. The analysis concludes by assessing if the Project may have an impact under cumulative conditions.

4.3.1 Baseline VMT

The Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) trip-based model is a travel demand model with socioeconomic and transportation network inputs, such as population, employment, and the regional and local roadway network. The model outputs several travel behavior metrics, such as vehicle trips and trip lengths, that can be used to calculate VMT. The RTP/SCS model forecasts long-term transportation demands and identifies policies, actions, and funding sources to accommodate these demands. The RTP/SCS consists of the construction of new transportation facilities, transportation systems management strategies, transportation demand management and land use strategies. While SCAG recently adopted the 2020-2045 RTP/SCS Connect SoCal, the travel demand forecasting model used to evaluate the plan is not yet available for use. SCAG's new RTP/SCS model is expected to be available for use on land use and transportation planning projects in late 2021. Based on the planned growth and transportation improvements envisioned in the new RTP/SCS, the VMT trends reported from the 2016 RTP/SCS model are expected to be similar to those in the new 2020 model.

The SCAG RTP/SCS trip-based model was used to estimate the regional baseline VMT and the baseline VMT for the City. The current 2016 SCAG model has 2012 as the base year and 2040 as the forecast year. This baseline VMT methodology includes vehicle trips within the SCAG model to generate the following metrics:

1. Home-based VMT per Capita: Home-based vehicle trips are traced back to the residence of the trip-maker (non-home-based trips are excluded) and then divided by the residential population within the geographic area. This metric is used to estimate VMT for residential land uses.
2. Home-based Work VMT per Employee: Vehicle trips between home and work are counted, and then divided by the number of employees within the geographic area. This metric is used to estimate VMT for office, retail, and other commercial land uses.

The City's baseline VMT for each metric is shown in **Table 5**. These metrics estimate current VMT trends for residential and employment uses in the City of Beverly Hills for Year 2020 which is when the Notice of Preparation (NOP) was released for the Project.

Table 5: Baseline VMT for City of Beverly Hills

VMT Metrics		City Baseline VMT
		Year 2020
Home-Based VMT	Baseline Home-Based VMT per Capita	6.7
Home-Based Work VMT	Baseline Home-Based Work VMT per Employee	16.0

4.3.2 VMT Impact Thresholds

The City of Beverly Hills adopted a VMT impact threshold for land use projects on October 10, 2019, which states that a significant impact would occur if the Project generates VMT higher than 15% below the regional average.[7] The regional average reflects that average amount of VMT generated within the SCAG region whereas the VMT data presented in the prior table reflects the average VMT generated within the City of Beverly Hills. The City's VMT impact thresholds based on the regional average are summarized in **Table 6**.

Table 6: City of Beverly Hills VMT Impact Thresholds

VMT Metrics		Year 2020	
		Regional Baseline VMT	VMT Impact Threshold*
Home-Based VMT	Baseline Home-Based VMT per Capita	14.5	12.3
Home-Based Work VMT	Baseline Home-Based Work VMT per Employee	17.7	15.0

* The VMT Impact Threshold for each VMT metric is 15% below the respective Baseline VMT.

4.4 VMT Screening

The first step of a VMT analysis is to determine what type of analysis, if any, is needed. Based on the OPR *Technical Advisory*, the City of Beverly Hills adopted four screening criteria that the City may use to identify if a proposed project is expected to cause a less-than-significant impact without conducting a detailed study: project size, locally serving retail, project location in a low VMT area, and project accessibility to transit. The four screening criteria are detailed below and applied to all or, as applicable, various components of the Project to determine if the Project as a whole, or a particular component, has the potential to result in a VMT impact. Once the Project as a whole, or a Project component, qualifies under one of the screening criteria, the Project or the applicable component is screened out from further consideration.

[7] City of Beverly Hills, *Local California Environmental Quality Act Thresholds of Significance for Transportation Impacts and Local Transportation Assessment Guidelines*, 2019, 10.

4.4.1 Screening Criteria 1: Project Size

Land use projects that generate less than 110 daily trips are presumed to have less than significant VMT impacts absent substantial evidence to the contrary. Therefore, these projects are screened out from completing a VMT analysis based on project size.

When compared to the existing land uses on the Project site, the Project would generate approximately 2,360 net new vehicle trips (as shown in **Table 2**). This daily trip generation exceeds the number of daily trips (up to 110 trips) that is applicable for project size screening. Therefore, the proposed Project does not meet this screening criteria.

4.4.2 Screening Criteria 2: Locally Serving Retail

Land use projects that have local-serving retail uses, defined as commercial projects with retail uses less than 50,000 sf, are presumed to have less than significant VMT impacts absent substantial evidence to the contrary. The commercial component of the Project would construct up to 25,000 sf of mercantile retail space. In comparison to the amount of existing retail uses located on the Project site, the Proposed Project would result in a net reduction in retail space of 8,460 sf. Nevertheless, the amount of new retail space would meet the screening criteria for locally serving retail uses and while the Project would reduce the total amount of retail uses, the screening criteria is met, which means that the retail component of the proposed Project is presumed to have a less than significant VMT impact and can be screened out from further VMT analysis.

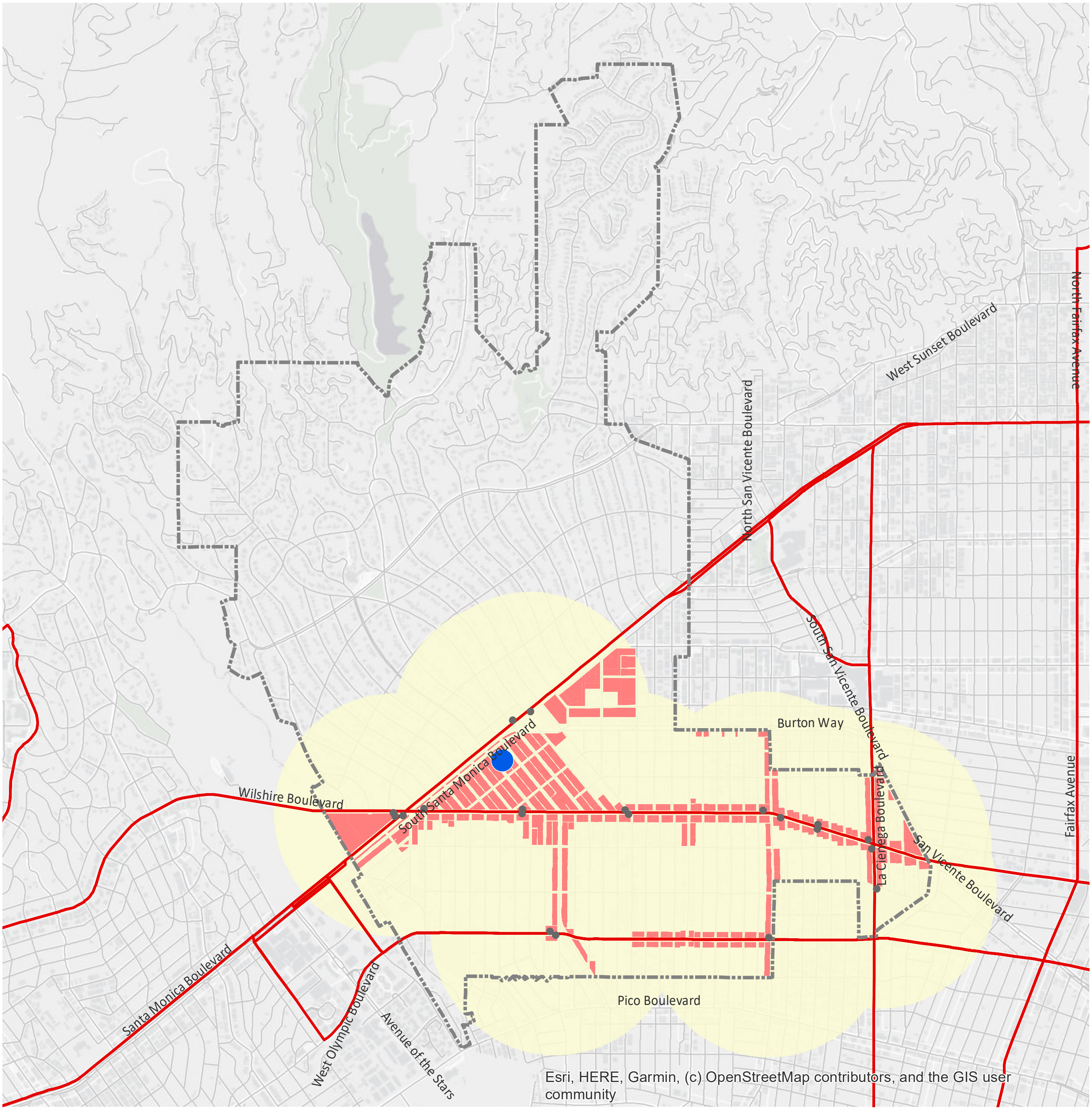
4.4.3 Screening Criteria 3: Low VMT Area Screening

OPR guidance states that residential and office projects located within a low VMT generating area may be presumed to have a less than significant impact absent substantial evidence to the contrary. A low VMT generating area generally has higher density, a mix of land uses, and provides opportunities for people to walk to nearby uses instead of always driving. Since the Project contains neither residential nor office uses, the Project does not meet this screening criteria.

4.4.4 Screening Criteria 4: Transit Priority Areas (TPA) Screening

Projects located in a Transit Priority Area (TPA) may also be screened out from conducting a VMT analysis because they are presumed to have a less than significant impact absent substantial evidence to the contrary. TPAs are defined in the OPR *Technical Advisory* as a ½ mile radius around an existing or planned major transit stop or an existing stop along a high-quality transit corridor (HQTC). A HQTC is defined as a corridor with fixed route bus service frequency of 15 minutes (or less) during peak commute hours.

The City of Beverly Hills's adopted VMT thresholds allow screening for TPAs that are located within ½ mile of a Metro Rapid bus stop for commercial zones. The TPAs in the City of Beverly Hills are shown in **Figure 7**. The TPAs in the City are based on bus schedules and service frequencies that reflect typical conditions in 2019 and early 2020. Beginning in July 2020, Metro implemented temporary service changes in response to the impacts of COVID-19 which caused the majority of bus routes in the study area to operate on a Sunday service schedule with reduced frequencies compared to typical weekday operations. However, in response to recent increasing ridership demands, Metro implemented service changes beginning December 13, 2020. While the majority of the transit lines that



Rapid Bus Stops

Rapid Bus Routes

City Limits

Transit Priority Area

Commercial Zone

Proposed Project Site

Figure 7

City of Beverly Hills
TPA Screening for Commercial Projects

provide service in the vicinity of the Project site are still operating on reduced frequencies in comparison to service levels prior to the pandemic, these changes are anticipated to be temporary with service returning to typical weekday frequencies as travel and ridership demands increase.

The presumption that a project in a TPA will have a less than significant impact absent substantial evidence to the contrary may not be appropriate if the project:

1. Has a Floor Area Ratio (FAR) of less than 0.75;
2. Includes more parking than is required by the City, unless additional parking is being provided for design feasibility, such as completing the floor of a subterranean or structured parking facility, or if additional parking is located within the project site to serve adjacent uses; or
3. Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the City).

Based on existing transit service in Beverly Hills, the Project is located in a commercial zone within a TPA and is less than ½ mile from six Metro Rapid bus stops, including the Santa Monica/Crescent eastbound stop, the Santa Monica/Cañon westbound stop, and the Santa Monica/Wilshire bi-directional stop of Metro Rapid Line 704, as well as the Wilshire/Santa Monica bi-directional stop of Metro Rapid Line 720. In addition, the Project site will be 0.4 miles from the recently approved North Portal entrance to the Metro D Line Wilshire/Rodeo station. The proposed Project's FAR is 4.03 and meets the 0.75 minimum requirement. The Project is also providing less parking than required by the City's Municipal Code. The Project site is designated as Mixed Residential and Commercial in the SCAG RTP/SCS, and therefore, the proposed land uses are consistent with the RTP/SCS. Based on this information, the Project is presumed to have a less than significant VMT impact and can be screened out from further VMT analysis.

4.5 VMT Analysis for Cumulative Conditions

For cumulative conditions, OPR states that a project that is below the VMT impact thresholds and does not have a VMT impact under baseline conditions would also not have a cumulative impact as long as it is aligned with long-term State environmental goals, such as reducing GHG emissions, and relevant plans, such as the SCAG RTP/SCS.[8] The City of Beverly Hills adopted the following cumulative threshold for VMT impacts:

1. A significant impact would occur if the project causes VMT within the City to be higher than the no project alternative under cumulative conditions.
2. A significant impact would occur if the project is determined to be inconsistent with the RTP/SCS.

Table 7 shows a comparison of socio-economic characteristics and VMT metrics of the Tier 2 Traffic Analysis Zone (TAZ) of the Project location between the baseline and future year. The TAZ area consists of the proposed Project site and adjacent commercial uses. Based on the expected increase in employment growth in Year 2040, the proposed Project site uses are accounted for in the SCAG model growth projections. The TAZs in the City of Beverly Hills and Project TAZ are shown in **Appendix C**.

[8] Governor's Office of Planning and Research, *Technical Advisory on Evaluating Transportation Impacts in CEQA*, 2018, 12.

As shown in **Table 7**, the employment in the TAZ is anticipated to increase by approximately 1,250, while VMT per employee is anticipated to decline from 17.1 to 12.2 based on additional land use densities, increased transit service, and trip reduction strategies envisioned by SCAG in the RTP/SCS. In addition, the Project site is designated as Retail and Commercial and Services in the SCAG RTP/SCS. Therefore, the Project is consistent with the RTP/SCS.

For evaluating potential VMT impacts under cumulative conditions, the future horizon year forecasted in the SCAG RTP/SCS model is considered to be the no project condition. Since the growth included in the SCAG model already reflects the development that is proposed to occur with the Project, the Project would not increase VMT in comparison to cumulative no project conditions and would not have a cumulative VMT impact.

Table 7: SCAG Growth Assumptions for Project TAZ

2016 SCAG RTP/SCS	Base Year Data	Year 2040 Data
Tier 2 TAZ	20868200	20868200
Household	-	-
Total Employment	15,196	16,442
Home-Based VMT per capita	-	-
Home-Base Work VMT per employee	17.1	12.2

Source: 2016 SCAG RTP Travel Demand Model.

4.6 VMT Summary and Conclusions

The Project meets the following screening criteria adopted by the City of Beverly Hills:

Screening Criteria 2, Locally Serving Retail Screening, states that projects which provide local-serving retail uses, defined as commercial projects with retail uses less than 50,000 sf, are presumed to have a less than significant VMT impact absent substantial evidence to the contrary. The proposed Project includes 24,976 sf of retail space and meets the criteria for retail screening. This means that the retail component of the Project is presumed to have a less than significant VMT impact and can be screened from further VMT analysis.

Screening Criteria 4, TPA Screening, states that projects will not need to complete a VMT analysis if the project is located in the City's definition of TPA which accounts for commercial zones in proximity to Metro Rapid bus stops. The Project is located within the boundary of three existing TPAs and meets the additional design criteria outlined for TPA screening.

Based on the screening criteria, the Project is presumed to have a less than significant VMT impact and is screened out from further VMT analysis.

5. Site Access & Circulation

This chapter presents an overview of site access and on-site circulation for the Project.

5.1 Overview

A valet motor court on South Santa Monica Boulevard would be used for drop-off and pick-up for hotel guests, club members, and spa, retail, and restaurant patrons. Valet-driven vehicles would return from the subterranean parking garage to the motor court via ground-floor internal circulation.

The city block bounded by South Santa Monica Boulevard on the north, North Beverly Drive on the east, Brighton Way on the south, and North Rodeo Drive on the west is currently bifurcated by a north-south alley connecting South Santa Monica Boulevard with Brighton Way. The portion of the alley that bisects the Project site would be relocated to the southern portion of the Project site. The new access point to the alley would be located on the west side of North Beverly Drive.

The 178-space subterranean parking garage would also provide electric vehicle charging equipment, bicycle parking, and charging facilities for electric bicycles. Employees would self-park in the below-grade garage accessed via the relocated alley entrance on North Beverly Drive and exit the Project site by travelling south down the alley to Brighton Way. Large format delivery vehicles, emergency services, and utility trucks would enter via the relocated alley and use the two full-size loading areas located at-grade on the Project site, and then exit southbound via the alley to Brighton Way. Two small-format van loading spaces would also be provided below grade, accessed via North Beverly Boulevard; smaller format vans would also exit southbound via the alley to Brighton Way.

Primary pedestrian access to the Project would be provided through the hotel entrance along South Santa Monica Boulevard. A club member lobby at ground level would provide secondary pedestrian access from North Beverly Drive. Retail spaces along Rodeo Drive would have separate pedestrian access points from the sidewalk along the street. Hotel visitors would not be provided access to the hotel via the Rodeo Drive retail spaces. The main access to the ground floor restaurant would be through the hotel lobby, with an ancillary, pedestrian-only access point provided on South Santa Monica Boulevard and/or North Beverly Drive.

The site plan for the Project was previously shown in **Figure 6**. The Specific Plan contains several objectives related to site access and circulation as summarized below.

- Provide pedestrian friendly amenities and uses along the street level, including sidewalk widths and setbacks that are generally consistent with other development along South Santa Monica Boulevard, North Rodeo Drive, and North Beverly Drive.
- Accommodate vehicle flow on adjacent City streets and promote multiple transportation modes (walking, bicycling) by relocating the alley bisecting the Site, placing parking underground, limiting driveway access points, and enhancing the pedestrian environment on all of the adjoining streets.

5.2 Project Driveways

As shown in **Figure 6**, several driveways would provide access to the Project site, including separate ingress and egress driveways on South Santa Monica Boulevard to and from the motor court, and the subterranean parking garage driveway with access to and from the realigned alley. The access driveways are described in detail below.

Motor Court Ingress – This driveway provides ingress into the valet motor court from South Santa Monica Boulevard. Both right and left-turns into the Project site would be allowed, similar to the permitted turning movements at the existing alley entrance. This driveway would be utilized for drop-off by entering hotel guests, club members, and spa, retail, and restaurant patrons, whether they arrive in their own vehicles or via a shared-ride vehicle. Visitors arriving in their own vehicles would utilize valet service, and valet operators would park their vehicles in the subterranean garage, which would require exiting the motor court and entering the realigned alley from North Beverly Drive to access the parking garage.

Motor Court Egress – This driveway provides egress from the valet motor court to South Santa Monica Boulevard. Egress would be limited to right-turns only and would be controlled by a stop sign for departing vehicles. This driveway would be utilized by hotel guests, club members, and spa, retail, and restaurant patrons following pick up of their vehicles in the motor court. Visitors who arrived in their own vehicles and utilized valet parking would pick up their vehicles in the motor court. Valet operators would utilize an internal drive aisle that provides a direct connection from the subterranean parking garage to the motor court to exit the site via this driveway.

Alley Access – The alley entrance would be relocated to North Beverly Drive on the southern edge of the Project site. The alley entrance would provide ingress to the subterranean parking facility and the ground-level full-size loading docks. The existing north-south portion of the alley south of the Project site would remain as is and would allow truck deliveries to exit the site and employees to exit the subterranean parking garage. Valet operators would only utilize the new east-west portion of the alley to enter the parking garage.

5.3 Alley Operations

The proposed alley reconfiguration will require that vehicles using the alley make a 90-degree turn from the new east-west oriented portion of the alley (from Beverly Drive) to access the existing and unaffected north-south segment. Project-generated traffic in the existing portion of the north-south alley will be limited to employees, delivery trucks, emergency services, and utility trucks only. As part of the Alley Study, a vehicular turning movement evaluation for the reconfigured alley was conducted for each of the vehicle types directly observed or anticipated to utilize the alley, including typical single-unit delivery trucks (SU-30 and SU-40), a typical garbage truck, two types of single-body fire trucks (not large "hook and ladder" trucks)[9], and a semi-trailer truck (WB-40) of the size typically used for deliveries in urban environments. The Alley Study indicated that each of these vehicle types would be able to make the required new turn with little or no difficulty (no multi-point turns or other such maneuvers). As a result, the proposed reconfiguration of the alley would not limit its use.

[9] The Beverly Hills Fire Department specified the type of fire trucks to be tested. Single-body fire trucks impose more stringent turning requirements than hook-and-ladder trucks.

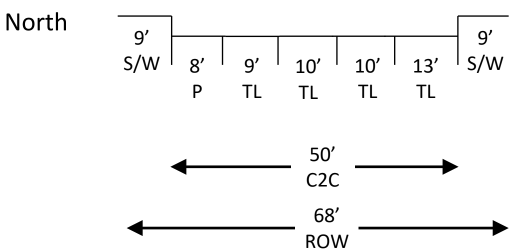
5.4 Access Recommendations

The Project's site access was reviewed in relation to the existing roadway network and permitted turning movements at Project driveways. For the primary Project access to the motor court from South Santa Monica Boulevard, the westbound left-turn from South Santa Monica Boulevard is projected to have a demand of approximately 30 vehicles in the AM peak hour and 90 vehicles in the PM peak hour. To minimize vehicle queueing on eastbound South Santa Monica Boulevard, a left-turn lane for vehicles entering the into the motor court could be implemented as follows:

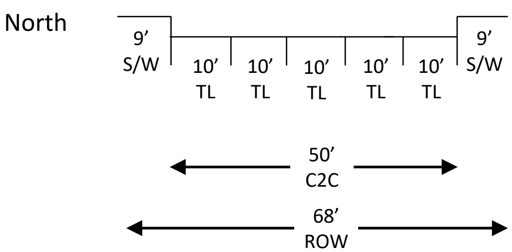
- Remove one parking spot from the north side of South Santa Monica Boulevard in order to extend the painted median to the Project motor court entrance, as illustrated on **Figure 8**. This would provide a separate storage lane for westbound left-turning vehicles such that westbound through traffic would not be impeded by vehicles waiting to turn. It is noted that the parking spot that would be removed under this alternative site access option was not in operation as of February 2021, when it was observed that a bag had been placed over the meter.

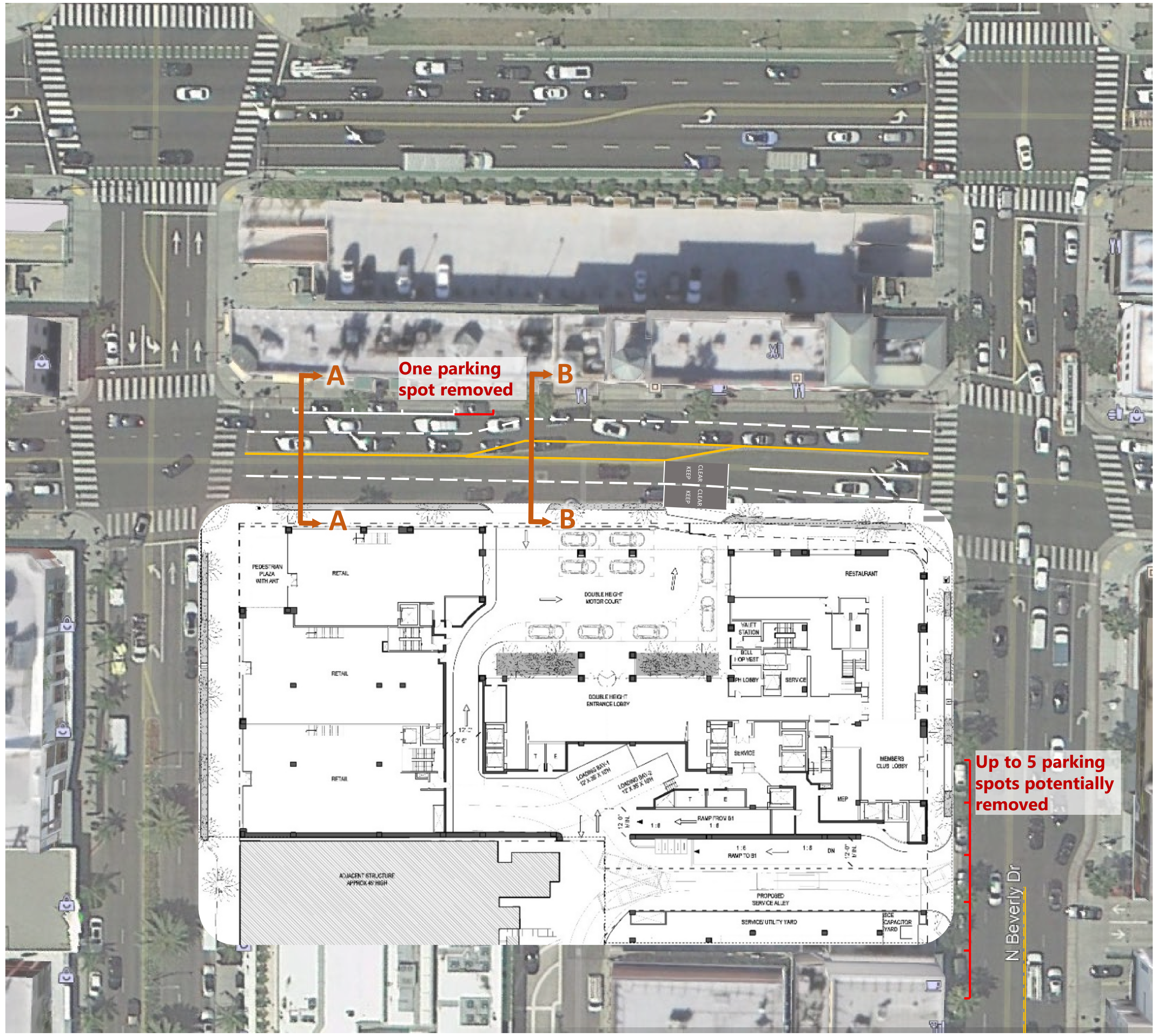
For the access driveway to the realigned alley, the northbound left-turn from North Beverly Drive is projected to have a demand of approximately 15 vehicles in the AM peak hour and 10 vehicles in the PM peak hour. These vehicles could utilize the existing center turn lane on North Beverly Drive to turn into the alley without blocking northbound through vehicles.

A-A



B-B





“KEEP CLEAR” Pavement Striping

Figure 8

Site Access Recommendation

6. Active Transportation System

This chapter discusses the Project in relation to the surrounding active transportation system.

6.1 Overview

The transit, bicycle and pedestrian impacts of the proposed Project were compared to existing conditions in the study area. For the proposed Project, the active transportation system was considered to be impacted if the Project conflicted with existing facilities or adopted policies, plans, or programs supporting active transportation.

6.2 Disruptions to Existing Transit Service

No existing transit service is provided along the Project's frontage on South Santa Monica Boulevard. On North Beverly Drive, the closest transit stop to the Project site is on the west side of the street just north of Brighton Way. Therefore, the land use and site access changes under the Project, including the reconfiguration of the alley entrance onto North Beverly Drive, would not result in a disruption to existing transit service.

6.3 Interferes with Planned Transit Service

No transit projects are planned on South Santa Monica Boulevard or on North Rodeo Drive. On North Beverly Drive, the North Portal entrance/exit to the D Line Wilshire/Rodeo Line station will be constructed on the west side of the street just north of Wilshire Boulevard, approximately 0.4 miles from the Project site. On-street parking will be removed on the southern portion of North Beverly Drive to provide the right-of-way needed to construct the North Portal and additional parking may be removed to provide pick-up/drop-off loading zones for transit riders. Given that these changes would occur south of Dayton Way, two blocks south of the Project site, the Project would not interfere with the planned changes on North Beverly Drive. Therefore, the land use and site access changes under the Project would not result in a disruption to planned transit service.

6.4 Disruptions to Existing Bicycle Facilities

There are no existing bicycle facilities adjacent to the Project site. Therefore, the Project would not result in a disruption to existing bicycle facilities.

6.5 Interferes with Planned Bicycle Facilities

There are bicycle facilities envisioned in the *City of Beverly Hills Complete Streets Plan* for each of the roadways by which access to the proposed Project is provided. A Class IV protected bicycle lane is planned for Beverly Boulevard, a Class II bicycle lane is planned for South Santa Monica Boulevard, and a Class III Bicycle Boulevard is planned for Brighton Way. The Project site would not change the right-of-way available on the adjacent roadways, and therefore, the Project would not interfere with the implementation of these facilities. Therefore, the Project would not result in interference with planned bicycle facilities.

6.6 Disruptions to Existing Pedestrian Facilities

The Project site plan proposes to improve pedestrian facilities compared to existing conditions, providing pedestrian-friendly treatments along the public rights-of-way adjacent to the Project site. The ground level is designed with pedestrian amenities such as an approximately 670 sf pedestrian plaza area at the corner of South Santa Monica Boulevard & North Rodeo Drive, special paving for the public sidewalk right-of-way, dedication of additional surface right-of-way for public sidewalk uses along South Santa Monica Boulevard, and landscaping in parkways on the perimeter of the Project site. While the Project would add additional driveways along South Santa Monica Boulevard and North Beverly Drive, these driveways are not expected to result in a significant impact to pedestrians. Upon completion of the proposed Project, enhanced pedestrian connectivity and improvements to the pedestrian environment would be available via the pedestrian facilities just described. Additionally, by placing retail, restaurant, and hotel uses in close proximity to existing commercial and residential centers and high-quality public transit, as well as by enhancing the pedestrian environment with landscaping, the proposed Project would encourage pedestrian activity in the Project area. The pedestrian improvements provided by the proposed Project would be in accordance with General Plan Goal CIR 6 by enhancing multi-modal transportation options and CIR 7 by making walking a more desirable travel choice, as well as with Complete Streets Plan Goals P1 through P3 and V3 by enhancing the pedestrian and neighborhood environment in the Project area. Therefore, the Project would not result in disruptions to existing pedestrian facilities.

6.7 Interferes with Planned Pedestrian Facilities

The *City of Beverly Hills Complete Streets* Plan envisions pedestrian corridor improvements on South Santa Monica Boulevard throughout the study area, including new and upgraded sidewalks, tightened curb radii to slow vehicle speeds, and mid-block crossings, among others. The pedestrian improvements planned for the proposed Project will enhance and align with the improvements identified by the City and will further the City's efforts to improve the pedestrian experience. Therefore, the Project would not result in a disruption to planned pedestrian facilities.

7. Construction Conditions

This chapter reviews the potential construction impacts of the proposed Project. The construction evaluation for the proposed Project considered the temporary impacts due to lane closures, need for temporary traffic control, emergency vehicle access, traffic hazards to bicycles and/or pedestrians, damage to the roadbed, the potential for truck traffic on roadways not designated as truck routes, and other similar impediments to circulation.

7.1 Overview

The initial construction phase is expected to commence in 2022 and be completed in 2026. Most construction activity would occur from 8:00 AM to 4:00 PM with some nighttime work, principally excavation, material loading and hauling. The duration of the construction elements based on information provided by the Project applicant is as follows:

Phase 1 is expected to have a 7.5-month duration with a start date in 2022. Project elements slated for construction during Phase 1 include:

- Utilities relocation
    - Infrastructure
- Demolition of 449 and 461 Beverly Drive
- Excavation (6 weeks)
    - Excavation of 449 Beverly and partial excavation of 461 Beverly in preparation for garage construction under relocated alley; garage construction at driveway to grade with overhead shoring in place
- Parking garage construction, Phase 1

Phase 2 would overlap with Phase 1 for 1.5 months. The overall duration of Phase 2 construction is expected to last 32 months. Project elements slated for construction during Phase 2 include:

- Utilities relocation
    - New utility cutover
- Demolition of 456 Rodeo Drive and 468 Rodeo Drive
- Excavation (15 weeks)
- Parking garage construction, Phase 2
- Hotel Building
- Site Work

The overall duration of construction is expected to last 38 months.

There are four main construction traffic impacts associated with the Project:

- Trucks traveling to and from the site to remove debris, fill, and other items (haul trucks)
- Equipment and material delivery/staging
- Worker traffic
- Worker parking

7.1.1 Haul Truck Traffic

Hauling activity is expected to occur between the Project site and off-site staging and/or logistics areas still to be determined. Between the hours of 7:00 PM to 10:00 PM, the designated outbound (leaving the Project site) haul route is anticipated to be from the Project site to eastbound South Santa Monica Boulevard to Burton Way to San Vicente Boulevard to southbound La Cienega Boulevard to Interstate 10. The reverse of this route would be used for inbound truck traffic from 7:00 PM to 10:00 PM. Between the hours of 10:00 PM to 7:30 AM, the designated outbound haul route is anticipated to be from the Project site to southbound Beverly Drive to eastbound Wilshire Boulevard to southbound La Cienega Boulevard. Between the hours of 10:00 PM to 7:30 AM, the inbound haul route would be from Interstate 10 to northbound La Cienega Boulevard to westbound Wilshire Boulevard to northbound North Camden Drive to eastbound South Santa Monica Boulevard to the Project site.

The proposed Project would create a construction management plan that provides for truck staging and designates appropriate travel routes to access the site. However, trucks could impact the adjacent roadway network as follows:

- The roadways designated as the truck routes for the Project are already some of the most congested in the City of Beverly Hills and the City of Los Angeles.
- There is no guarantee that truck traffic would not deviate from the designated routes and impact other roadways when traveling to and from the site.
- The number of trucks required to access the site during the excavation process would be approximately 60 trucks per day for a 21-week period.

7.1.2 Delivery and Staging of Material and Equipment

Another source of construction traffic would derive from the transportation of materials and equipment to the site. One example would be concrete, of which substantial quantities would be required for the parking garage and the buildings on-site. Other materials could include plumbing supplies, electrical fixtures, and even items used in furnishing the hotel and other uses. These materials would have to be delivered to the site and stored on-site as well. These deliveries would occur through variously sized vehicles including small delivery trucks to cement mixer trucks, and possible 18-wheel trucks.

Additionally, heavy construction equipment would have to be delivered to the site. This equipment could include cranes, bulldozers, excavators, and other large items of machinery. Most of the heavy equipment would be transported to the site on large trucks such as 18-wheelers or other similar sized vehicles, and the heavy equipment would remain on-site until it’s no longer needed.

The influx of this material and equipment could create impacts on the adjacent roadway network based on the following considerations:

- There may be intermittent periods when large numbers of material deliveries are required such as when concrete trucks would be needed for the parking garage and the buildings.
- Some of the materials and equipment could require the use of large trucks (18-wheelers), which can create additional congestion on the adjacent roadways.
- Delivery vehicles may need to park temporarily on adjacent roadways such as Santa Monica Boulevard, Beverly Drive, and Rodeo Drive as they deliver their items.

A City-approved construction traffic control plan and haul route would be implemented.

7.1.3 Worker Traffic

The maximum number of workers on the Project site would be 500 per day. The peak number of construction workers for each general construction phase is as follows.

- Excavation/Foundations: 98 construction workers
- Parking Garage: 137 construction workers
- Hotel Building: 477 construction workers
- Sitework: 25 construction workers

The number of vehicles associated with these workers could be estimated by applying the following process:

- Each worker would drive to and from the site daily at least once (two daily person trips per worker).
- A small percentage of the workers may carpool or travel together. This can be based on regional auto occupancy factors (1.25 persons per vehicle).
- Workers would travel to/from the site in the morning (7:00 to 9:00 AM) and afternoon peak hours (4:00 to 6:00 PM). They are not all likely to arrive at the construction site within the same hour nor would they leave the site at the same time. It was assumed that no more than half of the drivers would arrive during a single peak hour either in the morning or afternoon as many construction workers arrive at the site outside of the peak hours, arriving prior to 7:00 AM and leaving the site before 4:00 PM.

Using the maximum number of workers (500), the number of worker trips would be as follows:

- 800 daily trips
- 200 Peak hour trips (one hour in the morning and afternoon peak period)

7.1.4 Worker Parking

During the initial four years of construction, construction workers would utilize a mixture of public and private parking facilities in the close proximity to the Project site. Once construction of the on-site subterranean parking structure is sufficiently progressed, construction employees would utilize on-site spaces as they become available, greatly reducing the off-site construction parking demand.

The need to park workers off-site could result in a specific traffic related impact because it could lead to worker parking spilling over into adjacent, and potentially residential areas. Workers may park in these areas because they find the off-site parking arrangement cumbersome and want to park at a location closer to the site.

7.1.5 Construction Summary & Mitigations

Several potential traffic-related impacts could result from construction of the proposed Project:

- Haul trucks traveling on congested roadways adjacent to the site could create additional congestion on the roadways.
- Truck traffic traveling to/from the site for material and equipment delivery could be very large trucks (18-wheelers), which could increase congestion on the adjacent roadways.
- The material and equipment delivery process could require vehicles to temporarily stop and unload on the adjacent streets. This loading/unloading process could involve temporary lane closures on the adjacent streets.
- Workers needing to park off-site while the parking garage is being constructed could forgo parking in designated off-site locations and instead park along adjacent streets. This parking spillover could impact the adjacent residential areas.

The construction impacts and recommended mitigation measures are described below.

Temporary Construction Impact 1: This impact derives from the haul truck traffic accessing the site and the delivery of materials/equipment. The Project applicant would prepare a Draft Construction Traffic Management Plan to address the issues above.

Mitigation Measure 1: Mitigating this impact would require the implementation of the following measures:

The developer shall update their Construction Traffic Management Plan to include plans to accomplish the following:

- Maintain existing access for land uses in proximity of the Project site during Project construction.
- Schedule deliveries and pick-ups of construction materials to non-peak travel periods, to the maximum extent feasible.
- Coordinate deliveries and pick-ups to reduce the potential of trucks waiting to load or unload for protracted periods of time.
- Minimize obstruction of through traffic lanes on Wilshire Boulevard and Santa Monica Boulevard.
- Construction equipment traffic from the contractors shall be controlled by flagman.

- Identify designated transport routes for heavy trucks (in addition to haul trucks) to be used over the duration of the proposed Project.
- Schedule vehicle movements to ensure that there are no vehicles waiting off-site and impeding public traffic flow on the surrounding streets.
- Establish requirements for loading/unloading and storage of materials on the Project site, where parking spaces would be encumbered, length of time traffic travel lanes can be encumbered, sidewalk closings or pedestrian diversions to ensure the safety of the pedestrian and access to local businesses.
- Coordinate with adjacent businesses and emergency service providers to ensure adequate access exists to the Project site and neighboring businesses.

Significance After Mitigation: Less than significant

Temporary Construction Impact 2: Construction workers could choose to park in areas adjacent to the Project site including residential streets. These workers might choose to park in these areas because on-site parking could be limited due to the construction activities or off-site parking areas might be considered to be too remote or inconvenient.

Mitigation Measure 2: The developer shall submit a Construction Workers' Parking Plan identifying parking locations for construction workers. To the maximum extent feasible, all worker parking shall be accommodated on the Project site. During phases when construction worker parking cannot be accommodated on the Project site, the Construction Worker's Parking Plan shall identify alternate parking locations for construction workers and the method of transportation to and from the Project site for approval by the City 30 days prior to commencement of construction. The Construction Workers Parking Plan must include appropriate measures to ensure that the parking location requirements for construction workers would be strictly enforced. These include but are not limited to the following measures:

- Provide all construction contractors with written information on where their workers and their subcontractors are permitted to park and provide clear consequences to violators for failure to follow these regulations. This information would clearly state that no parking is permitted on residential streets north of Wilshire or in public parking structures.
- No construction worker parking shall be permitted within 500 feet of the nearest point of the Project site except within designated areas. The contractor shall be responsible for informing subcontractors and construction workers of this requirement, and if necessary, for hiring a security guard to enforce these parking provisions. Contractor shall be responsible for all costs associated with enforcement of this mitigation measure.
- In lieu of the above, the Project developer/construction contractor has the option of phasing demolition and construction activities such that all construction worker parking can be accommodated on the Project site throughout the entire duration of demolition and construction activities.

Significance After Mitigation: Less than significant

7.1.6 Cumulative Construction Traffic Impacts

Additional construction impacts could occur as the result of simultaneous construction activities in the Project area, such as the on-going construction of the D Line Extension and the North Portal for the Wilshire/Rodeo station. Potential impacts include:

- Simultaneous arrival and departure of haul trucks - The increased volume of haul truck traffic and number of trucks entering/exiting roadways surrounding the two Project sites could result in congestion on those roadways.
- Simultaneous arrival and departure of delivery trucks - Equipment and supply delivery vehicles could impact adjacent roadways by creating additional congestion. There may also be temporary queuing of these delivery vehicles if large numbers of vehicles arrive or depart at once.

Temporary Construction Impact 3: Simultaneous construction activities in the Project area could result in significant, although temporary, traffic impacts resulting from haul truck traffic and the simultaneous delivery of materials/equipment. For this reason, construction associated with the proposed Project would have a cumulatively considerable, and therefore significant, contribution to cumulative traffic impacts.

Mitigation Measure 3: With implementation of the following mitigation measures, the proposed Project's contribution to cumulative traffic impacts would be reduced to less than significant.

The developer for the Project shall coordinate with the City of Beverly Hills regarding the following:

- All temporary roadway closures shall be coordinated to limit overlap of roadway closures.
- All major deliveries shall be coordinated to limit the occurrence of simultaneous deliveries. The Project applicant shall ensure that deliveries of items such as concrete and other high-volume items shall be reported to the City's major delivery schedule and reporting shall be incorporated as a requirement into the Construction Traffic Management Plan to ensure that simultaneous deliveries are avoided when feasible.
- The applicant shall coordinate regarding the loading and unloading of delivery vehicles. Any off-site staging areas for delivery vehicles shall be consolidated and shared where feasible.
- The applicant or its representative shall meet on a regular basis with the City during construction to address any outstanding issues related to construction traffic, deliveries, and worker parking.
- If construction on other major projects in the vicinity is occurring simultaneously with this Project, the City can require as part of the Construction Traffic Management Plan that the applicant meet with other applicants and the City to address construction traffic, deliveries, and worker parking.

Significance After Mitigation: Less than significant

Appendix A:
Related Project List

Attachment C: Related Project List for Project Study Area

No	Street	City	Existing Use	Proposed Use	ITE Code	Size	Unit	Daily	AM In	AM Out	AM Total	PM In	PM Out	PM Total
Beverly Hills Related Projects (08.18.2020)														
1	100 N. Crescent Dr.	Beverly Hills CA	2,550 SF Screening Room, 103,535 SF Commercial Office	Commercial Office: 4,330 SF of restaurant, 2,489 SF of screening room, 154,336 SF of office; 465 parking spaces	Office (N/A)	51	KSF		45	4	**48**	17	61	**79**
					932	4	KSF		26	21	**47**	26	17	**43**
							Total		71	25	**96**	43	78	**121**
2	250 N. Crescent Dr.	Beverly Hills CA	Vacant Lot	Multi-Family Residential: 7 Condo Units, 1 Affordable Rental Unit, 12,400 SF residential uses; 14 parking spaces	230	8	DU		1	3	**4**	3	1	**4**
3	154-168 N. La Peer Dr.	Beverly Hills CA	Multi-Family Residential (3 buildings) - 6 units	Multi-Family Residential: 16 Condo Units, 39,084 SF residential uses; 59 parking spaces	230	16	DU		5	2	**7**	6	2	**8**
4	140 S. Lasky Drive	Beverly Hills CA	3-story hotel - 14,625 SF, 44 rooms (Occ.)	4-story hotel - 36,760-SF with 66 rooms, 1,845 SF restaurant (898 SF indoor, and 947 SF outdoor), and rooftop uses (roof deck and pool deck), and 3 levels of subterranean parking with 94 spaces.	310	22	Rooms		9	7	**16**	8	8	**16**
					931	2	TSF		7	2	**9**	10	6	**16**
							Total		16	9	**25**	18	14	**32**
5	457 N. Oakhurst Dr.	Beverly Hills CA	2-story, 2-unit building (vacant)	6-unit, 5-story condominium building	221 (Mid-rise)	6	unit		1	2	**3**	2	1	**3**
									0	0	**0**	0	0	**0**
							Total		1	2	**3**	2	1	**3**
6	9212 Olympic Blvd.	Beverly Hills CA	Surface Parking Lot associated with adjacent Auto Dealer (not a part)	Commercial Office with Retail/Restaurant: 6,900 SF of Retail/Restaurant (with a max. of 1,000 SF of bar and dining area), 13,344 SF of Commercial Office; 58 parking spaces	710	13	TSF		18	2	**20**	4	16	**20**
					933	1	TSF		35	28	**63**	27	25	**52**
					814	5	TSF		15	17	**32**	14	10	**24**
							Total		68	47	**115**	45	51	**96**
7	9120 Olympic Blvd.	Beverly Hills CA	54,262 SF (educational facility) (occ.)	Total new floor area: 80,719 SF (net increase of 26,457 SF)	534 (Private K-8)	26	TSF		169	138	**307**	85	88	**173**
8	9230 Olympic Blvd	Beverly Hills CA	Approx. 7,573 SF Commercial (Office)	18,163 SF Commercial: 1,359 SF Restaurant and 16,804 SF of Office	931 (Quality Restaurant)	1	TSF		5	2	**7**	7	5	**12**
					710 (Gen. Office Bldg.)	17	TSF		21	5	**26**	7	19	**26**
							Total		26	7	**33**	14	24	**38**
9	425 N. Palm Dr.	Beverly Hills CA	Multi-Family Residential (3 buildings) - 18 Units	Multi-Family Residential: 20 Multi-Family Residential Units - Approx. 64,000 Total; 62 parking spaces	230	20	DU		2	7	**9**	7	4	**11**
10	340 S. Rexford	Beverly Hills CA	Vacant Lot	3-Unit Condominium Building	232	3	DU		6	25	**31**	11	7	**18**
11	370 N. Rodeo Dr.	Beverly Hills CA	9,587 SF Commercial (Retail)	Commercial (Retail): 15,250 SF of Retail Use (net increase of 5,663 SF)	814	6	KSF		19	21	**40**	16	13	**29**
12	400-408 N. Rodeo Dr.	Beverly Hills CA	28,128 SF Commercial (Retail) (12,864 SF at 400 Rodeo and 15,264 SF at 408 Rodeo)	29,767 SF Commercial (Retail)	876 (Apparel Store)	2	TSF		5	4	**9**	4	4	**8**
13	9220 N. Santa Monica Blvd.	Beverly Hills CA	Vacant	11 Office buildings totaling 114,202 SF, and an underground parking garage with 230,559 SF and 476 parking spaces	714 (Corporate Headquarters Building)	114	TSF		190	6	**196**	40	171	**211**
14	9900-9908 S. Santa Monica Blvd.	Beverly Hills CA	Vacant Lot (Friar's Club)	Mixed-Use Multi-Family and Commercial: 13,036 SF of Commercial, 25 Condo Units	230	27	DU		4	8	**12**	10	4	**14**
					814	14	KSF		45	49	**94**	39	30	**69**
							Total		49	57	**106**	49	34	**83**
15	8600 Wilshire Blvd.	Beverly Hills CA	Vacant Lot and Commercial Building	Mixed-Use Multi-family and Commercial: 6,355 SF Retail; 18 Units; 3,412 SF Public Use; 82 parking spaces*	230	21	DU		1	8	**9**	7	4	**11**
					820E	5	TSF		15	10	**25**	41	44	**84**
					820R	3	TSF		-2	-1	**-3**	-5	-5	**-9**
							Total		14	17	**31**	43	43	**86**
16	8633 Wilshire	Beverly Hills CA	Commercial building (restaurant)	25,565 SF Commercial Office; 76 parking spaces	710 (Gen. Office Bldg.)	26	TSF		32	6	**38**	8	32	**40**
17	9000 Wilshire Blvd.	Beverly Hills CA	4,820 SF Commercial (Retail) and Surface Parking Lot	Commercial Office: 31,702 SF Commercial Office; 91 parking spaces	710	32	TSF		13	2	**15**	3	12	**15**
18	9111 Wilshire Blvd.	Beverly Hills CA	112,400 SF	No change to floor area. Change in use from Office Building (710) to Hotel (310)	Office Building (710)	112	TSF		146	20	**166**	29	131	**160**
					Hotel	154	Room		45	39	**84**	55	40	**95**
							Total		191	59	**250**	84	171	**255**
19	9145 Wilshire Blvd.	Beverly Hills CA	8,269 SF Commercial (Bank/Office - now vacant); 15 parking spaces	8,269 SF religious institution; 16 parking spaces	560	8	TSF		3	3	**6**	5	3	**8**
20	9200 Wilshire Blvd.	Beverly Hills CA	Vacant Lot	Mixed-Use Multi-family and Commercial: 54 Multi-Family Residential Units, 14,000 SF Commercial; 321 parking spaces	230	53	DU		4	20	**23**	19	9	**28**
					820E	8	TSF		22	14	**35**	59	63	**122**
					931	6	TSF		2	2	**5**	28	14	**42**
							Total		28	36	**64**	106	86	**192**
21	9596 Wilshire Blvd.	Beverly Hills CA	Surface Parking Lot	48,374 SF Commercial building	874	48	KSF		53	51	**104**	61	75	**136**
22	9900 Wilshire Blvd.	Beverly Hills CA	Vacant (Former Robinson's May Site)	Mixed-Use (Condominium and Commercial): 193 Condo Units with 134 Rooms, 16,057 SF of Restaurant/Retail, 7,942 SF of Ballrooms/Conference Rooms, 18,826 SF of Ancillary Uses, 1,140 parking spaces	310	134	Rooms		47	38	**85**	56	43	**99**
					232	193	DU		13	52	**65**	45	28	**73**
					820R-1	18	TSF		11	7	**18**	33	36	**69**
					932-1	14	TSF		65	14	**79**	80	48	**128**
							Total		136	111	**247**	214	155	**369**

Attachment C: Related Project List for Project Study Area

No	Street	City	Existing Use	Proposed Use	ITE Code	Size	Unit	Daily	AM In	AM Out	AM Total	PM In	PM Out	PM Total
23	9876 Wilshire Blvd. (PHASE II - Condominium Building and Conference Center)	Beverly Hills CA	Hotel (The Beverly Hilton) - 739 Total Rooms in Interim before Phase II Completion	140 Condo Units, 10 accessory staff units, 37,409 SF of Conference Center/Meeting Room Uses, 157,843 sf of landscaped gardens; Overall Hotel Rooms reduced to maximum 522 after completion of Phase II;	310	-46	Rooms		16	10	**26**	14	13	**27**
					230	140	DU		8	41	**48**	39	19	**57**
					931	5	TSF		2	2	**4**	25	12	**37**
					820	5	TSF		16	10	**26**	42	45	**87**
							Total		42	63	**105**	120	89	**209**
24	9850, 9876, 9900 and 9988 Wilshire Boulevard.	Beverly Hills CA	3,521 SF Service Station (9988 Wilshire); Vacant (9900 Wilshire); 786 hotel room Beverly Hilton Hotel (9876 Wilshire) and 170 hotel room Waldorf Astoria Beverly Hills Hotel (9850 Wilshire) – combined existing Hilton/WABH floor area of 724,649 SF.	Demolish 3,521 SF of service station and 166,834 SF of Beverly Hilton floor area (including demolition of 217 existing hotel rooms). Add: new 162 residential unit, 499,806 SF residential building; new 141 residential unit, 424,266 SF residential building; New 213,966 SF 37 residential unit, 42 hotel room hotel/residential building; new 127,324 SF structure containing amenities and support areas, including 30 accessory spaces that could be used for staff housing; replacement 37,562 SF Beverly Hilton Conference Center; new re[placement 72,697 SF Beverly Hilton addition containing restaurant, retail, 36 hotel rooms and support space.	NA	NA	NA		11	47	**58**	68	20	**88**
Los Angeles City Related Projects (12.20.2020)														
25	2025 S Ave of the Stars	Los Angeles CA	Century Plaza (Hyatt Regency Hotel)	Mixed Use	Condominiums	193	Total Units	1224			**99**			**111**
					Other	240	Other	1961			**134**			**182**
					Office	117647	SF	1512			**214**			**229**
					Other	16800	SF	553			**20**			**72**
					Other	10309	SF	927			**8**			**76**
					Other	5154	SF	655			**59**			**67**
					Retail	93814	SF	6515			**97**			**631**
					Other	-727	SF	-5935			**-407**			**-552**
					Other	-84275	SF	-2648			**-144**			**-128**
					Other	-32615	SF	-1074			**-39**			**-140**
							Total	3690	21	20	**41**	274	274	**548**
26	10250 W Santa Monica Blvd	Los Angeles CA	Century City (Westfield Shopping Center)	Add 71,700 SF and renovate shopping center (total 831,891 SF)	Retail	71700	SF	1350			**26**			**140**
					Retail	1308	SF							**4**
							Total	1350	16	10	**26**	69	75	**144**
27	1950 S Ave of the Stars	Los Angeles CA	Century City Center	Mixed-Use: Residential, Office, Retail and Mobility Hub	Office	725830	SF	4603	604	83	**687**	103	501	**604**
28	888 S Devon Ave	Los Angeles CA		Apartment building: 5 stories over 2 stories of podium/garage construction	Apartments	32	DU	213	3	13	**16**	10	6	**16**
29	10306 W Santa Monica Blvd	Los Angeles CA		26 Apt to 91 Apt or 116 Apt	Apartments	116	DU	598	15	31	**46**	25	21	**46**
30	10400 W Santa Monica Blvd	Los Angeles CA		5-story,96- DU Apt bldg over 3-level parking(1-street & 2-basement)	Apartments	121	DU		10	43	**53**	32	18	**50**
West Hollywood Related Projects (10.15.2020)														
31	8713 Beverly	West Hollywood CA			220 - Multifamily Housing (Low-Rise) (Residential)	30	DU	200	3	12	**15**	12	7	**19**
					Retail	6	KSF	211	2	2	**4**	9	9	**18**
					710 - General Office Building (Office)	3	KSF	38	4	1	**5**	1	4	**5**
					Gallery	1	KSF	1	0	0	**0**	0	0	**0**
							Total	450	9	15	**24**	22	20	**42**
32	8816 Beverly	West Hollywood CA			931 - Quality Restaurant	21	KSF	1651	0	0	**0**	105	49	**153**
					890 - Furniture Showroom	25	KSF	89	3	1	**4**	2	5	**7**
					720 - Medical Office	77	KSF	2559	164	41	**205**	72	188	**260**
					931 - Quality Restaurant	1	KSF	69	2	1	**3**	5	2	**7**
					760 - Research and Development	9	KSF	82	3	1	**4**	2	1	**3**
							Total	4354	167	42	**209**	178	241	**419**
33	8899 Beverly	West Hollywood CA			220 - Multifamily Housing (Low-Rise) (Residential)	12	DU	80	1	5	**6**	5	2	**7**
					230 - Condominiums	56	DU	325	4	21	**25**	19	10	**29**
					230 - Condominiums	13	DU	76	1	5	**6**	5	2	**7**
					826 - Specialty Retail	20	KSF	881	0	0	**0**	24	30	**54**
					931 - Quality Restaurant	4	KSF	395	0	0	**0**	22	11	**33**
					710 - General Office Building (Office)	11	KSF	116	14	2	**16**	3	13	**16**
							Total	-129	-69	21	**-48**	17	-54	**-37**
34	1120 Larrabee	West Hollywood CA			220 - Multifamily Housing (Low-Rise) (Residential)	22	DU	161	2	8	**10**	8	4	**12**
35	417 Robertson	West Hollywood CA			820 - Shopping Center (Retail)	8	KSF	283	4	3	**7**	14	15	**29**

Attachment C: Related Project List for Project Study Area

No	Street	City	Existing Use	Proposed Use	ITE Code	Size	Unit	Daily	AM In	AM Out	AM Total	PM In	PM Out	PM Total
36	645 Robertson	West Hollywood CA			826 - Specialty Retail	18	KSF	803	14	10	**24**	22	27	**49**
					931 - Quality Restaurant	33	KSF	2995	22	5	**27**	167	82	**249**
					310 - Hotel (Lodging)	241	RMS	1969	75	53	**128**	74	71	**145**
					890 - Design Showroom	10	KSF	52	1	1	**2**	2	2	**4**
					925 - Drinking Place (Services)	4	KSF	515	0	0	**0**	28	15	**43**
							Total	3351	94	54	**148**	134	104	**238**
37	9001 Santa Monica	West Hollywood CA			820 - Shopping Center (Retail)	10	KSF	370	6	3	**9**	18	19	**37**
					932 - High-Turnover (Sit-Down) Restaurant (Services)	10	KSF	1099	53	44	**97**	60	36	**96**
							Total	1469	59	47	**106**	78	55	**133**
38A	9040 Santa Monica	West Hollywood CA		Project 38A reflects the approved Melrose Triangle project site in West Hollywood.	220 - Multifamily Housing (Low-Rise) (Residential)	76	DU	505	8	31	**39**	31	16	**47**
					Specialty Retail	45	KSF	1999	36	24	**60**	54	68	**122**
					710 - General Office Building (Office)	137	KSF	1701	212	29	**241**	39	193	**232**
					890 - Furniture Store	16	KSF	727	13	9	**22**	20	25	**45**
					890 - Furniture Store	12	KSF	62	1	1	**2**	3	3	**6**
					931 - Quality Restaurant	8	KSF	738	5	1	**6**	41	20	**61**
					Existing Land Use			-2154	-83	-28	**-111**	-64	-146	**-210**
							Total	3578	192	67	**259**	124	179	**303**
38B	9040 Santa Monica	West Hollywood CA		Project 38B reflects the current land use proposal for the Melrose Triangle site. Since the proposed land use generated more vehicle-trips, Project 38B was applied to the cumulative conditions analysis.	220 - Multifamily Housing (Low-Rise) (Residential)	41	DU	300	6	17	**23**	16	11	**27**
					Specialty Retail	45	KSF	1999	36	24	**60**	54	68	**122**
					710 - General Office Building (Office)	245	KSF	2386	317	43	**360**	63	285	**348**
					890 - Furniture Store	12	KSF	62	1	1	**2**	3	3	**6**
					931 - Quality Restaurant	8	KSF	738	5	1	**6**	41	20	**61**
					Existing Land Use			-2154	-83	-28	**-111**	-64	-146	**-210**
							Total	3331	282	58	**340**	113	241	**354**
39	8920 Sunset	West Hollywood CA			Specialty Retail	10	KSF	457	7	5	**12**	12	16	**28**
					932 - High-Turnover (Sit-Down) Restaurant (Services)	2	KSF	224	10	9	**19**	10	7	**17**
					710 - General Office Building (Office)	46	KSF	506	63	9	**72**	12	56	**68**
					580 - Museum (Institutional)	2	KSF	0	1	0	**1**	0	0	**0**
					Arts Club	7	MEMBERS	1771	55	15	**70**	69	56	**125**
							Total	1961	103	19	**122**	68	91	**159**
40	8850 Sunset	West Hollywood CA			220 - Multifamily Housing (Residential)	41	DU	300	6	17	**23**	16	11	**27**
					932 - High-Turnover (Sit-Down) Restaurant (Services)	29	KSF	3231	230	174	**404**	260	241	**501**
					310 - Hotel (Lodging)	115	RMS	961	33	29	**62**	41	29	**70**
					925 - Night Club (Drinking Place)	5	KSF	645	0	0	**0**	35	18	**53**
							Total	5137	269	220	**489**	352	299	**651**
41	9034 Sunset	West Hollywood CA			220 - Multifamily Housing (High-Rise) (Residential)	10	DU	45	1	2	**3**	2	2	**4**
					932 - High-Turnover (Sit-Down) Restaurant (Services)	11	KSF	921	4	4	**8**	57	27	**84**
					310 - Hotel (Lodging)	237	RMS	1981	65	46	**111**	72	70	**142**
							Total	2199	70	52	**122**	129	96	**225**
42	910 Wetherly	West Hollywood CA			220 - Multifamily Housing (Residential)	93	DU	681	15	37	**52**	36	26	**62**
43	8650 Melrose	West Hollywood CA			220 - Multifamily Housing (Residential)	7	DU	51	1	3	**4**	3	2	**5**
					814 - Retail	15	KSF	925	33	33	**66**	54	54	**108**
							Total	976	34	36	**70**	57	56	**113**
44	923 Palm	West Hollywood CA			220 - Multifamily Housing (Residential)	49	DU	359	7	20	**27**	19	14	**33**
45	8555 Santa Monica	West Hollywood CA			220 - Multifamily Housing (Residential)	123	DU	900	19	50	**69**	48	34	**82**
					814 - Retail	15	KSF	925	33	33	**66**	54	54	**108**
					932 - High-Turnover (Sit-Down) Restaurant (Services)	4	KSF	438	31	24	**55**	35	33	**68**
					710 - General Office Building (Office)	7	KSF	65	9	1	**10**	2	8	**10**
					918 - Personal Services	4	KSF	NA	3	1	**4**	3	4	**7**
							Total	2328	95	109	**204**	142	133	**275**
46	8430 Sunset	West Hollywood CA			220 - Multifamily Housing (Residential)	125	DU	915	20	50	**70**	49	35	**84**
					850 - Retail	35	KSF	3737	121	112	**233**	138	128	**266**
							Total	4652	141	162	**303**	187	163	**350**
47	8497 Sunset	West Hollywood CA			932 - High-Turnover (Sit-Down) Restaurant (Services)	10	KSF	1096	78	59	**137**	88	82	**170**
					710 - General Office Building (Office)	12	KSF	112	15	2	**17**	3	13	**16**
							Total	1208	93	61	**154**	91	95	**186**

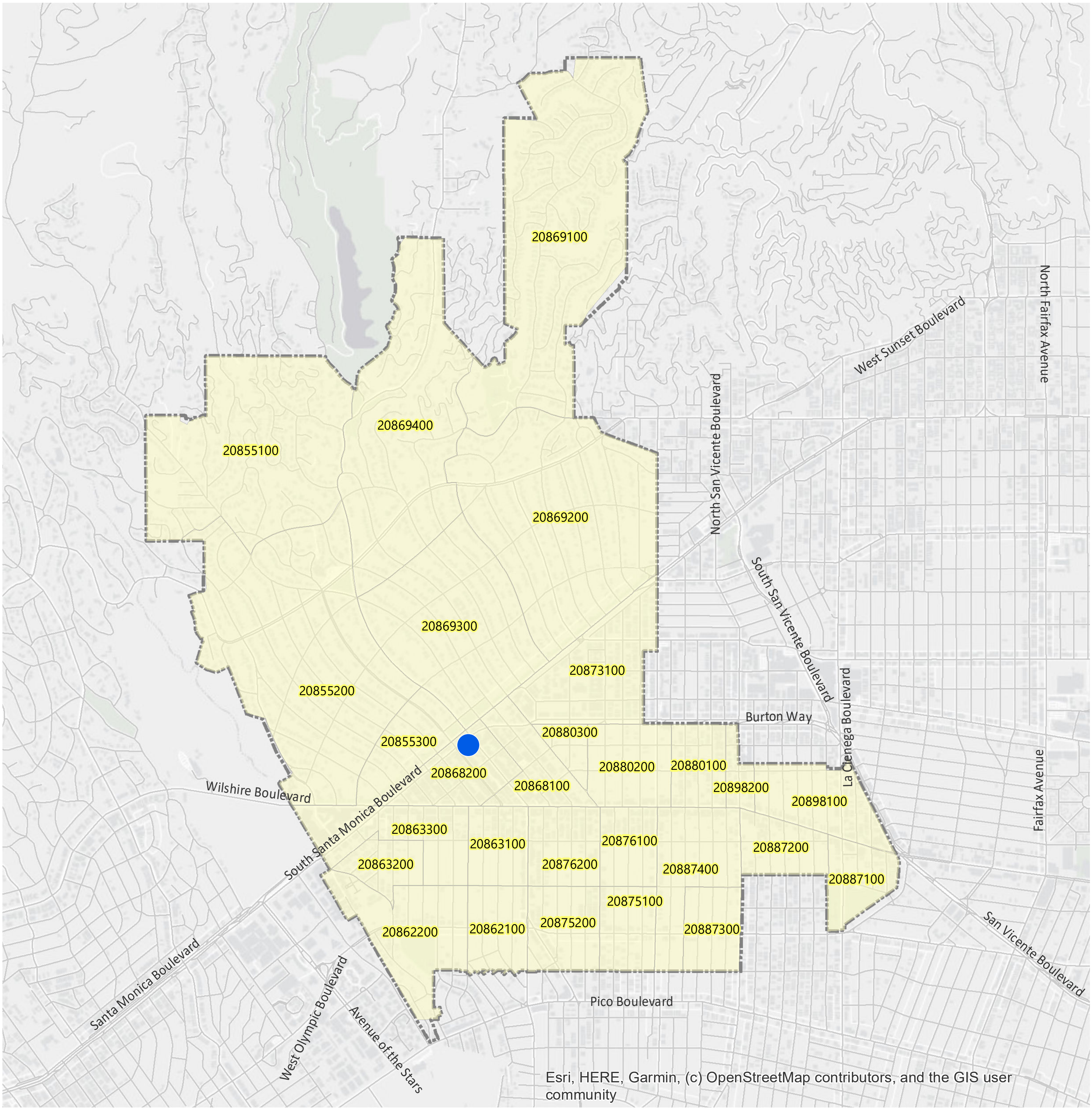
Appendix B:
Detailed Trip Generation Rates

ATTACHMENT A
CHEVAL BLANC HOTEL, CLUB & MIXED USE PROJECT
PROPOSED PROJECT TRIP GENERATION ESTIMATES

Trip Generation Estimates																	
			Trip Generation Rates [a]								**Estimated Trip Generation**						
Land Use	**ITE#**	**Size**	Daily Rate	AM Peak Hour			PM Peak Hour			Trip Rate Unit	**Weekday Daily**	**AM Peak Hour**			**PM Peak Hour**		
				Rate	% In	% Out	Rate	% In	% Out			**In**	**Out**	**Total**	**In**	**Out**	**Total**
<u>Proposed Project</u>																	
Hotel	310	115 rooms	8.36	0.47	59%	41%	0.60	51%	49%	per room	961	32	22	54	35	34	69
TNC [e]											640	21	15	36	23	23	46
Employee											125	4	3	7	5	4	9
Valet											196	7	4	11	7	7	14
Total check											961	32	22	54	35	34	69
Private Membership Club	[c]	500 members	0.36	0.04	80%	20%	0.08	80%	20%	member	180	16	4	20	32	8	40
TNC [e]											0	0	0	0	0	0	0
Employee											23	2	1	3	4	1	5
Valet											157	14	3	17	28	7	35
Total check											180	16	4	20	32	8	40
Quality Restaurant	931	25.094 ksf	83.84	0.73	50%	50%	7.8	67%	33%	per ksf	2,104	9	9	18	131	65	196
Less Internal Capture [b]			20%	20%	20%	20%	0%	20%	20%		*(421)*	*(2)*	*(2)*	*(4)*	*(26)*	*(13)*	*(39)*
New Trips											1,683	7	7	14	105	52	157
TNC [e]											842	4	4	8	52	26	78
Employee											252	1	1	2	16	8	24
Valet											589	2	2	4	37	18	55
Total check											1,683	7	7	14	105	52	157
Retail	820	24.976 ksf	37.75	0.94	62%	38%	3.81	48%	52%	per ksf	943	14	9	23	46	49	95
Less Internal Capture [b]			20%	20%	20%	20%	20%	20%	20%		*(189)*	*(3)*	*(2)*	*(5)*	*(9)*	*(10)*	*(19)*
Less Pass-By			30%	30%	30%	30%	30%	30%	30%		*(226)*	*(3)*	*(2)*	*(5)*	*(11)*	*(12)*	*(23)*
New Trips											528	8	5	13	26	27	53
TNC [e]											0	0	0	0	0	0	0
Employee											100	2	1	2	5	5	10
Valet											428	6	4	11	21	22	43
Total check											528	8	5	13	26	27	53
Day Spa [d]	918	12.936 ksf	14.50	1.21	50%	50%	1.45	17%	83%	per ksf	188	8	8	16	3	16	19
Less Internal Capture [b]			20%	20%	20%	20%	0%	20%	20%		*(37)*	*(1)*	*(2)*	*(3)*	*(1)*	*(3)*	*(4)*
New Trips											151	7	6	13	2	13	15
TNC [e]											0	0	0	0	0	0	0
Employee											20	1	1	2	0	2	2
Valet											131	6	5	11	2	11	13
Total check											151	7	6	13	2	13	15
TOTAL ESTIMATED PROJECT TRIPS (NEW TRIPS)											**3,503**	**70**	**44**	**114**	**200**	**134**	**334**
TOTAL ESTIMATED PROJECT TRIPS (EMPLOYEE TRIPS)											521	10	6	16	30	20	50
TOTAL ESTIMATED PROJECT TRIPS (VALET)											1,501	35	19	54	95	65	160
TOTAL ESTIMATED PROJECT TRIPS (UNADJUSTED TNC TRIPS)											1,482	25	19	44	75	49	124
TOTAL ESTIMATED PROJECT TRIPS (ADJUSTED TNC TRIPS)											1,482	25	25	50	75	75	150
ACTIVE USES CREDIT											-1,142	-18	-10	-28	-55	-60	-115
TOTAL ADJUSTED PROJECT TRIPS											**2,361**	**52**	**40**	**92**	**145**	**100**	**245**

<u>Notes:</u>
[a] Source: ITE Trip Generation Manual, 10th Edition, 2017, except where noted.
[b] Internal capture represents the percentage of trips between land uses that occur within the site without requiring a vehicle trip. Internal capture rates are derived from "Parking Demand Analysis Study - Cheval Blanc Hotel in the City of Beverly Hills, CA", Kimley Horn (2020).
[c] Private membeship member trip rates derived from "Parking Demand Analysis Study - Cheval Blanc Hotel in the City of Beverly Hills, CA", Kimley Horn (2020).
[d] No daily trip rate is provided by ITE for Land Use 918 - Hair Salon. Daily rate assumes that the PM peak hour trip rate is equal to 10% of the daily trip rate.
[e] The proliferation of shared mobility transportation network companies (TNCs), such as Lyft and Uber, in recent years is important to consider in a project of this type and size. Pick-up and drop-off trips, such as those utilizing TNC services, do not utilize site parking and result in an additional trip generated compared to patrons who drive themselves and park their own cars at the site. In order to account for TNCs, it was assumed that TNCs would account for 50% of the vehicle trips generated by the restaurant, and 66.6% of the vehicle trips generated by the hotel, based on observed drive ratios provided in the Parking Demand Analysis Study technical memorandum (July 16, 2020). Where inbound and outbound trips were unequal, the higher of the two calculations was assumed for both directions to account for TNCs that drop off a patron and leave the project site without

Appendix C:
SCAG Model Data for VMT Analysis



Proposed Project Site

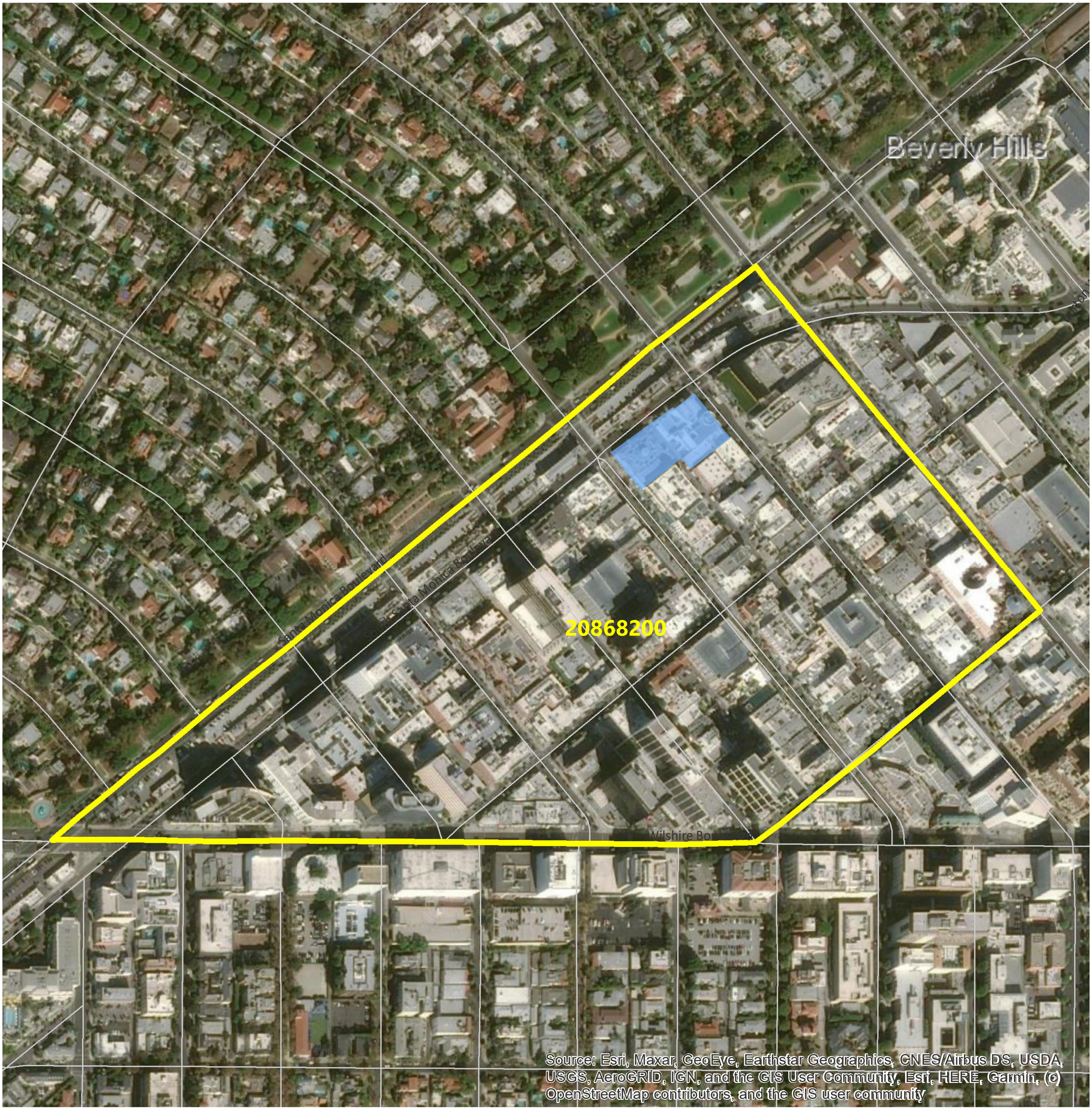
Tier 2 TAZ

City Limits

SCAG Regional Average calculated using SCAG model

Appendix C-1

SCAG Tier 2 Traffic Analysis Zones in Beverly Hills



Proposed Project Site

TAZ: Tier 2

Appendix C-2

SCAG

Proposed Project Tier 2 TAZ

Appendix H.2

Local Transportation Assessment

Cheval Blanc Beverly Hills Specific Plan

Local Transportation Assessment

Prepared for:
Eyestone Environmental

September 2021

LA20-3243

FEHR PEERS

Table of Contents

Appendices

List of Figures

List of Tables

1. Study Overview

This local transportation assessment presents the results of the traffic operations analysis conducted by Fehr & Peers for the proposed Cheval Blanc Beverly Hills Specific Plan and other requested approvals as set forth in the Draft Environmental Impact Report as section 27, "Required Approvals" (herein collectively referred to as the "proposed Project" or the "Project") in the City of Beverly Hills. The purpose of this study is to identify traffic operations in the Project vicinity with the development of the proposed Project. This chapter outlines the purpose of the study, the geographic scope of the local transportation assessment, and the study scenarios. This study relies on data contained in the *Cheval Blanc Beverly Hills Specific Plan Transportation Impact Report* (Fehr & Peers, September 2021) that was prepared as part of the Environmental Impact Report for the proposed Project.

1.1 Study Purpose

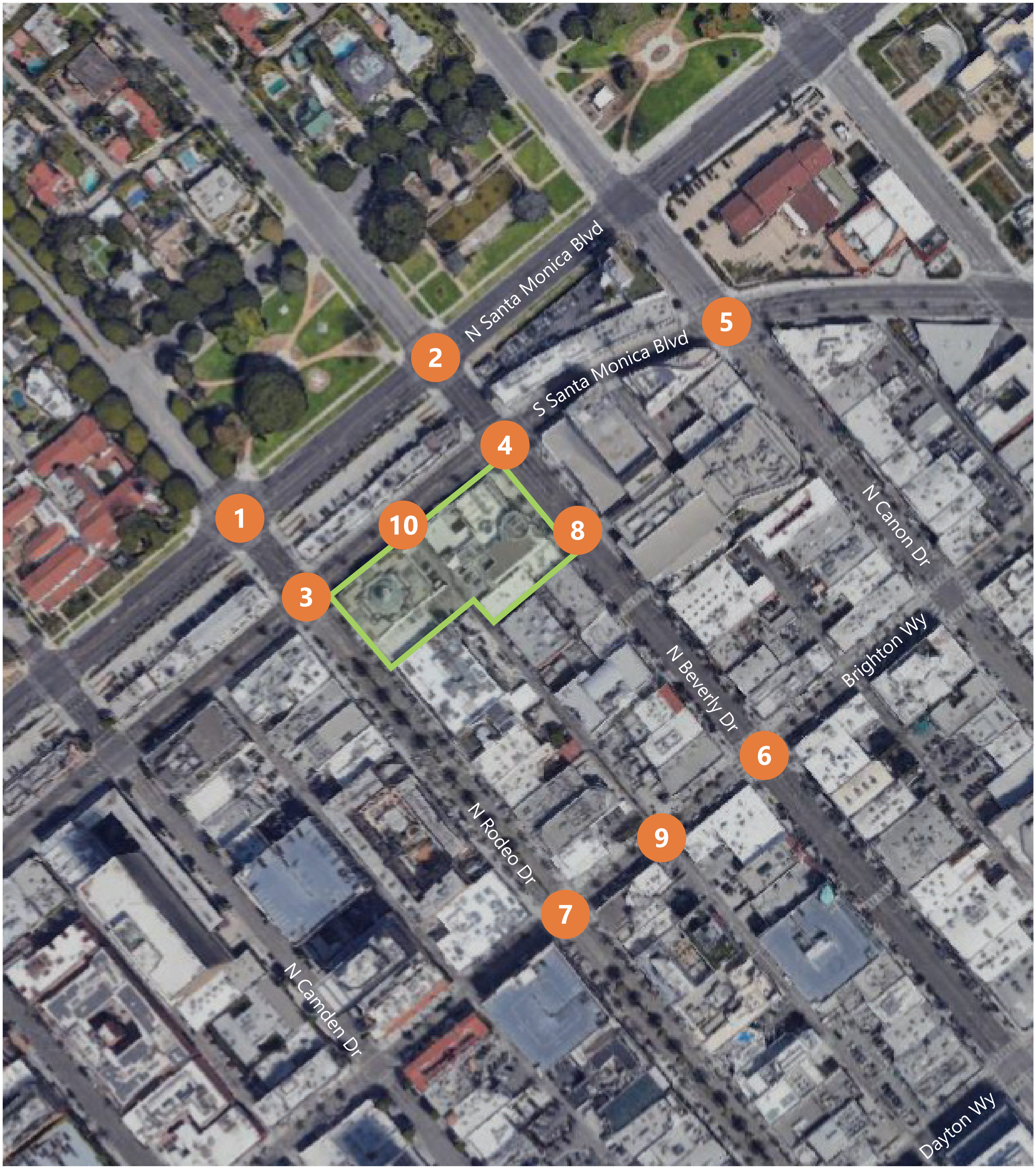
The purpose of this study is to analyze traffic operations with the new land uses that would occur with the development of the Project. In October 2019, the City of Beverly Hills Planning Commission adopted new transportation impact thresholds and guidelines to adhere to CEQA requirements pertaining to Senate Bill 743 (SB 743). The primary purpose of SB 743 was eliminating level of service (LOS) as a measure of vehicular capacity and traffic congestion as a basis for determining significant transportation impacts under CEQA. Rather, SB 743 required lead agencies to shift the focus from evaluating traffic impacts based on metrics that only consider vehicle travel time and delay (i.e., impacts to drivers) to a new metric that captures the state's goals of improved air quality, reduced greenhouse gas emissions, and improved public health (i.e., impacts of driving) known as vehicle miles travelled (VMT).

While LOS no longer constitutes a CEQA impact, it can still be used to inform decision makers on the overall effects of a project. Therefore, the City developed Local Transportation Assessment Guidelines at the time it adopted its new transportation thresholds in October 2019. The traffic operations analysis completed for this Local Transportation Assessment is based on the City's guidelines.

1.2 Project Study Area

The Project is located in the heart of the City of Beverly Hills. As shown in **Figure 1**, the Project site is bordered by South Santa Monica Boulevard on the north, North Beverly Drive on the east, North Rodeo Drive on the west, and existing developments on the south. The Project study area is generally bounded by North Santa Monica Boulevard to the north, North Cañon Drive to the east, Rodeo Drive to the west, and Brighton Way to the south. **Figure 1** displays the study area and the locations of the following study intersections:

1. North Rodeo Drive/North Santa Monica Boulevard (S)*
2. North Beverly Drive/North Santa Monica Boulevard (S)



Legend

Project Location

Study Intersections

Figure 1

Project Location and Study Intersections

3. North Rodeo Drive/South Santa Monica Boulevard (S)
4. North Beverly Drive/South Santa Monica Boulevard (S)
5. North Cañon Drive/South Santa Monica Boulevard (S)
6. North Beverly Drive/Brighton Way (S)
7. North Rodeo Drive/Brighton Way (S)
8. North Beverly Drive/Realigned Alley (future intersection) (SSSC)**
9. Alley/Brighton Way (SSSC)
10. Alley (or future Project Driveway)/South Santa Monica Boulevard (SSSC)

** (S) indicates signalized intersection*

*** (SSSC) indicates side-street stop-controlled intersection*

1.3 Analysis Scenarios

The operations of the study intersection were analyzed during the weekday morning (AM) and evening (PM) peak hours for the following scenarios:

- **Existing (2019) Conditions** – The analysis of existing traffic conditions was based on traffic volume estimates that reflect 2019 conditions. Traffic counts for the study intersections were compiled from available data collected at various times from before the COVID-19 pandemic. Historic counts were grown to reflect 2019 conditions using an average annual growth rate of 0.5% per year.

- **Existing (2019) plus Project Conditions** – This traffic scenario provides an analysis of operating conditions with the changes to Project-generated traffic based on development of the Project. The existing plus Project conditions analysis accounts for both the land use and site access changes proposed under the Project, including the realignment of the alley. The changes to traffic operations were then compared to operations under existing conditions.

- **Future (2026) No Project Conditions** – Future traffic projections were developed to reflect the year 2026. The objective of this analysis was to project future traffic growth and operating conditions that could be expected to result from regional growth and related projects in the vicinity of the Project site by the anticipated Project opening year.

- **Future (2026) plus Project Conditions** – This traffic scenario provides projected traffic volumes and an analysis of operating conditions for the year 2026 and accounts for both the land use and site access changes proposed with the Project. The changes with the proposed Project on future traffic operating conditions were then identified.

In addition to the scenarios above, traffic operations in the study area were also analyzed assuming full occupancy of the existing uses that are located on the Project site but are currently vacant. The purpose of this additional scenario is to compare traffic operations with the Project to the historic trip generation of the existing uses on the Project site and assess the Project effects on traffic operations.

2. Analysis Methodology & Criteria

This chapter describes the analysis methodologies and criteria that are required by the City of Beverly Hills Local Transportation Assessment Guidelines. The purpose of analyzing traffic operations is to understand operational changes that are expected to occur as a result of the Project.

2.1 Traffic Analysis Methods

The analysis of roadway operations performed for this study is based on procedures presented in the *Highway Capacity Manual 6th Edition* (*HCM 6*), published by the Transportation Research Board in 2016. The operations of roadway facilities are described with the term level of service (LOS). LOS is a qualitative description of traffic flow based on factors such as speed, travel time, delay, and freedom to maneuver. Six levels are defined from LOS A, with the least congested operating conditions, to LOS F, with the most congested operating conditions. LOS E represents "at-capacity" operations. Operations are designated as LOS F when volumes exceed capacity, resulting in stop-and-go conditions. The methodologies for signalized and unsignalized intersections are described in the subsections below.

2.1.1 Signalized Intersections

The method described in "Chapter 19: Signalized Intersections" of the *HCM 6* was used to prepare the LOS calculations for the signalized study intersections. This LOS method analyzes a signalized intersection's operation based on average control delay per vehicle. Control delay alone is used to characterize LOS for the entire intersection or for an approach. Control delay includes the initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The average control delay for signalized intersections is calculated using Synchro 10.0 analysis software and is correlated to a LOS designation, as shown in **Table 1**. Synchro 10.0 analysis accounts for delays associated with conflicting pedestrian crossings, buses stopping and blocking the through lane, and vehicles pulling into or out of adjacent on-street parking. Other Synchro inputs including saturation flow rate, peak hour factor, and initial vehicle queues were estimated to reflect congested conditions that were observed in the study area before the COVID-19 pandemic.

Table 1: Level of Service Definitions for Signalized Intersections

Level of Service	Description	Delay in Seconds
A	Progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	≤ 10.0
B	Progression is good, cycle lengths are short, or both. More vehicles stop than with LOS A, causing higher levels of average delay.	> 10.0 to 20.0
C	Higher congestion may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level, though many still pass through the intersection without stopping.	> 20.0 to 35.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	> 35.0 to 55.0
E	This level is considered by many agencies to be the limit of acceptable delay. These high-delay values generally indicate poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	> 55.0 to 80.0
F	This level is considered unacceptable with oversaturation, which is when arrival flow rates exceed the capacity of the intersection. This level may also occur at high V/C ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to such delay levels.	> 80.0

Source: *Highway Capacity Manual 6th Edition*, Transportation Research Board, 2016.

2.1.2 Unsignalized Intersections

The operations of the unsignalized intersections were evaluated using the method contained in "Chapter 20: Two-Way Stop-Controlled Intersections" of the *HCM 6*. LOS ratings for stop-sign-controlled intersections are based on the average control delay expressed in seconds per vehicle. At a two-way- or side-street-stop-controlled (SSSC) intersection, the average control delay is calculated for the minor-street stopped movement and the major-street left turns, not for the intersection as a whole. For approaches composed of a single lane, the control delay is computed as the average of all movements in that lane. For approaches with multiple lanes, the control delay is computed for each movement; the movement with the worst (i.e., longest) delay is presented for SSSC. As shown in **Table 2**, LOS F is assigned to the movement if the volume-to-capacity (V/C) ratio for the movement exceeds 1.0, regardless of control delay. The average control delay for unsignalized intersections is calculated using Synchro 10.0 analysis software and is correlated to a LOS designation, as shown in **Table 2**.

In the case of the future Project Driveway/South Santa Monica Boulevard intersection, the private driveway approach was not evaluated, and only operations on the public roadway approaches are reported.

Table 2: Unsignalized Intersection Level of Service Definitions

Level of Service ($v/c \leq 1.0$)	Level of Service ($v/c > 1.0$)[1]	Description	Average Control Delay Per Vehicle (Seconds)
A	F	Little or no delay.	≤ 10.0
B	F	Short traffic delay.	> 10.0 to 15.0
C	F	Average traffic delays.	> 15.0 to 25.0
D	F	Long traffic delays.	> 25.0 to 35.0
E	F	Very long traffic delays.	> 35.0 to 50.0
F	F	Extreme traffic delays with intersection capacity exceeded.	> 50.0

Source: *Highway Capacity Manual*, Transportation Research Board, 2016.
Notes:
[1] For approach-based and intersection-wide assessments, such as that used for all-way stop controlled intersections, LOS is defined solely by control delay.

2.2 Analysis Criteria

The analysis compares existing or future baseline operations with "plus project" conditions to determine whether project implementation is expected to cause undesirable increases in delay on the surrounding roadways. Based on the most recent City of Beverly Hills guidelines, a signalized intersection should be identified if it has an increase in average total delay equal to or greater than 10.0 seconds for intersections operating at LOS D, and equal to or greater than 5.0 seconds for intersections operating at LOS E or F after the addition of project traffic. A change in LOS from LOS D to LOS E or LOS E to LOS F does not signify an undesirable effect unless the increase in average delay of 10.0 seconds (LOS D) or 5.0 seconds (LOS E or F) also occurs with the project. Intersections operating at LOS A, B, or C after the addition of the project traffic are not considered undesirable regardless of the increase in delay. **Table 3** below summarizes the criteria for a signalized intersection.

Table 3: Signalized Intersection Criteria

LOS with Project	Average Total Delay (seconds per vehicle)	Project-Related Increase in Delay
D	>35.0 – 55.0	Equal to or greater than 10.0 seconds
E or F	> 55.0	Equal to or greater than 5.0 seconds

Source: City of Beverly Hills Local Transportation Assessment Guidelines, October 2019.

An unsignalized, SSSC intersection operations may be considered undesirable if the location has an increase in total delay that results in operations degrading from LOS D to LOS E, LOS E to LOS F, or by more than 10.0 seconds of delay for locations already operating at LOS F after the addition of project traffic. In addition to the delay thresholds, the unsignalized intersection should only be identified if it also meets the peak hour signal warrant. The signal warrants used for this evaluation are those described in Chapter 4C of the *California Manual of Uniform Control Devices* (CAMUTCD, 2014 Edition), published by the US Department of Transportation Federal Highways Administration (FHWA) then revised and adopted by Caltrans. Intersections operating at LOS A, B, or C after the addition of the project traffic are not considered undesirable regardless of the increase in total delay. **Table 4** summarizes the criteria for an unsignalized intersection.

Table 4: City of Beverly Hills Unsignalized Intersection (SSSC) Criteria

LOS with Project	Average Total Delay for Side Street Approach (seconds per vehicle)	Project-Related Increase in LOS or Seconds of Average Total Delay
E	> 35.0 and ≤ 50.0	LOS D or better to LOS E or worse, and meets the peak hour warrant for a traffic signal
F	> 50.0	LOS E to LOS F, or greater than 10.0 seconds for worst-case approach is already at LOS F, and meets the peak hour warrant for a traffic signal

Source: City of Beverly Hills Local Transportation Assessment Guidelines, October 2019.

3. Existing Conditions

This chapter discusses the existing traffic operations in the study area. A complete description of the study area's roadway network, transit service, and active transportation facilities is provided in the *Cheval Blanc Beverly Hills Specific Plan Transportation Impact Report* (Fehr & Peers, September 2021).

3.1 Existing Traffic Volumes

Due to the statewide stay-at-home order and social distancing measures issued by the Governor of California and Los Angeles County Department of Health to slow the spread of COVID-19, data collection in 2020 would not reflect typical travel conditions in the study area. Therefore, traffic counts for the study intersections were compiled from available data collected at various times from before the COVID-19 pandemic to estimate travel demand under existing conditions. Historic counts were grown to reflect 2019 conditions using an average annual growth rate of 0.5% per year. Where traffic count data was not available (North Rodeo Drive/South Santa Monica Boulevard), turning volumes were estimated based on volume balancing with adjacent intersections and observed travel flows in the area.

Intersection turning movement counts are reported for the following times:

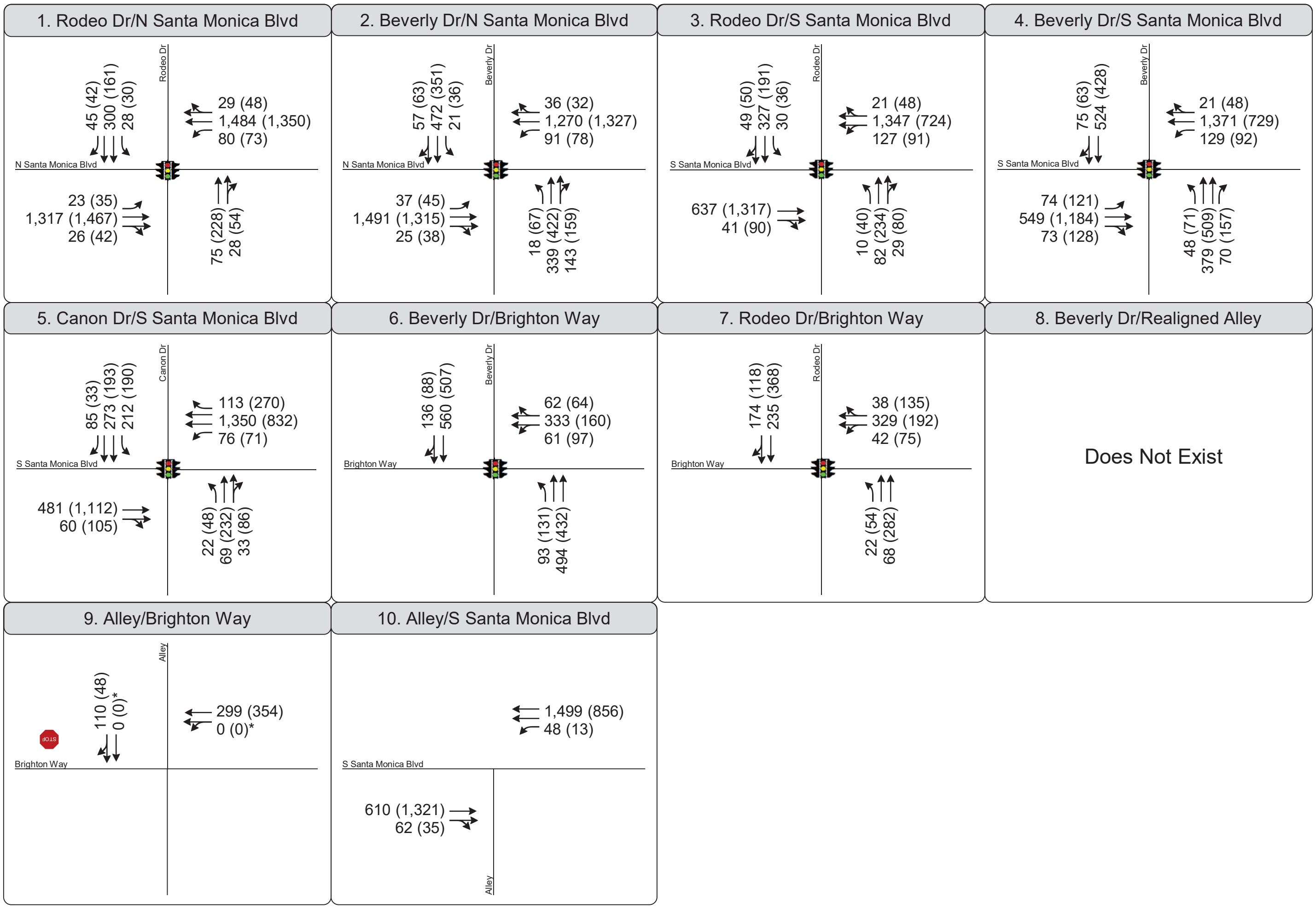
- Weekday morning peak period (7:00 to 9:00 AM)
- Weekday evening peak period (4:00 to 6:00 PM)

Existing lane configurations and signal controls were obtained through field observations. Signal timing data was provided by the City of Beverly Hills staff. **Figure 2** presents the existing peak hour turning movement volumes, corresponding lane configurations, and traffic control devices. **Appendix A** provides historic traffic count data sheets.

3.2 Existing Intersection Operations

Existing peak hour volumes and lane configurations were used to calculate the LOS for each of the study intersections. The results of the existing LOS analysis are presented in **Table 5** and the corresponding LOS calculation sheets are included in **Appendix B**.

As shown in **Table 5**, most study intersections operate at LOS D or better under existing conditions. The one exception is North Rodeo Drive/South Santa Monica Boulevard which is calculated to operate at undesirable levels of LOS E in the AM peak hour.



* Data was not available for volumes on the alley south of Brighton Way, so these turning movements are shown 0. No changes to these volumes would occur as a result of the proposed project.

AM (PM) Peak Hour Traffic Volume

Lane Configuration

Stop Sign

Signalized

Figure 2

Peak Hour Traffic Volumes and Lane Configurations - Existing (2019) Conditions

Table 5: Existing (2019) Intersection Operations

Intersection	Control	Peak Hour	Existing Operations	
			Delay (sec/veh)[1]	LOS[2]
1. N Rodeo Dr/N Santa Monica Blvd	Signalized	AM	23.7	C
		PM	33.9	C
2. N Beverly Dr/N Santa Monica Blvd	Signalized	AM	37.8	D
		PM	31.6	C
3. N Rodeo Dr/S Santa Monica Blvd[3]	Signalized	AM	63.9	E
		PM	27.9	C
4. N Beverly Dr/S Santa Monica Blvd	Signalized	AM	35.9	D
		PM	41.0	D
5. N Cañon Dr/S Santa Monica Blvd	Signalized	AM	29.4	C
		PM	19.7	B
6. N Rodeo Dr/Brighton Wy	Signalized	AM	11.4	B
		PM	11.9	B
7. N Beverly Dr/Brighton Wy[3]	Signalized	AM	25.9	C
		PM	26.7	C
8. N Beverly Dr/Realigned Alley	SSSC	AM	DNE	N/A
		PM	DNE	N/A
9. Brighton Wy/Alley	SSSC	AM	10.2	B
		PM	9.7	A
10. Alley (or future Project Dwy)/S Santa Monica Blvd	SSSC	AM	9.6	A
		PM	14.5	B

Source: Fehr & Peers, 2021.
Notes:
SSSC indicates Side street stop-controlled intersection.
DNE indicates the intersection does not exist under this scenario.
Underlined text indicates a LOS of D, E, or F.
[1] Whole intersection weighted average stopped delay expressed in seconds per vehicle for signalized intersections. The vehicular delay for the worst movement is reported for the SSSC intersections.
[2] LOS calculations performed using the *Highway Capacity Manual* 6th Edition (*HCM 6*) method.
[3] LOS calculations performed using the *Highway Capacity Manual* 5th Edition method due to signal phasing.

4. Proposed Project Transportation Characteristics

This chapter summarizes the land uses and trip generation of the proposed Project and describes the total number of vehicle trips that would be generated in comparison to existing conditions. In addition to the trip generation estimates, this chapter presents the Project trip distribution and assignment of Project trips to the surrounding roadway network.

4.1 Project Overview

The Project is located in the heart of Beverly Hills. The 1.277-acre Project site is bordered by South Santa Monica Boulevard on the north, North Beverly Drive on the east, North Rodeo Drive on the west, and existing developments on the south. The proposed Project would provide a luxury hotel and multiple-use development, compatible with the scale and massing of the surrounding neighborhood, and providing pedestrian-friendly amenities and uses along the street level. The Project consists of a single four- to nine-story structure including a luxury hotel, private membership club, appurtenant hotel uses including a day spa and wellness center, and uses open to the general public, including restaurant space and retail. The portion of the existing north-south alley that bisects the Project site and is currently accessed from South Santa Monica Boulevard would be relocated to the southern portion of the Project site. The new access point to the alley would be from the west side of North Beverly Drive.

4.1.1 Project Land Uses

The Project allows for a maximum allowable floor area of 220,949 square feet (sf) and a maximum of 115 hotel rooms. The Project also includes a private membership club with up to 500 members (dedicated club facilities include a 36-seat screening room and bar, lounge and social spaces) and appurtenant hotel uses including a day spa and wellness center, uses open to the general public including 25,094 sf of restaurant space and 24,976 sf of retail, and 178 parking spaces located in a subterranean garage. The Project opening year is expected to be 2026.

The proposed Project would replace 56,787 sf of existing commercial space in four structures located at:

- 456 North Rodeo Drive: 6,895 sf commercial with 9 surface parking spaces that is currently occupied
- 468 North Rodeo Drive: 20,265 sf commercial with 6 surface parking spaces that is currently vacant
- 449, 451, and 453 North Beverly Drive: 6,276 sf commercial that is currently vacant
- 461-465 North Beverly Drive: 23,351 sf institutional with 5 surface and 45 underground spaces with driveway access on South Santa Monica Boulevard that is currently occupied

4.1.2 Project Trip Generation

Trip generation for the Cheval Blanc Project uses were generally based on the most recent edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (10th Edition). Specific ITE Land Use codes for each use are provided in **Table 6**. ITE trip generation rates estimate the total number of trips to a given land use for all trip types, including trips made by employees, residents, or visitors to the site.

The only proposed use that was not estimated using ITE rates was the 500-member private membership club. The club provides access to a screening room, bar, lounge and socials spaces, and access to the hotel's wellness center and spa. The club will have the ability to hold a limited number of events for club members per year based on the size of the event. Due to the unique nature of the programmed activities, there is not a comparable trip rate provided by ITE. A custom trip generation rate was developed for the private membership club for member trips based on the expected daily member visitation as identified in the *Parking Demand Analysis Study* (July 16, 2020) for the proposed Project. Based on the membership levels and site amenities, the membership club was estimated to generate 180 daily vehicle-trips and up to 40 vehicle-trips in a peak hour. This trip generation also assumes that members will drive alone to the Project site.

Table 6 provides the trip generation rates applied to the proposed Project.

Table 6: Trip Generation Rates

Land Use	Trip Rates		
	Daily	AM	PM
Hotel[1]	8.36	0.47	0.60
Private Membership Club[2]	0.36	0.04	0.08
Quality Restaurant[3]	83.84	0.73	7.80
Retail[4]	37.75	0.94	3.81
Day Spa[5]	14.50	1.21	1.45

Notes:
[1] Hotel trip rates based on ITE Land Use 310 – Hotel.
[2] Trip generation rates based on daily member visitation rates provided in the Cheval Blanc Initial Study.
[3] Restaurant trip rates based on ITE Land Use 931 – Quality Restaurant.
[4] Retail trip rates based on ITE Land Use 820 – Shopping Center.
[5] Day Spa trip rates based on ITE Land Use 918 – Hair Salon.

Vehicle trip generation estimates were adjusted based on a variety of factors applicable to the Project context. For one type of credit, a 20% internalization trip credit was applied to the restaurant, retail, and day spa uses. That is, it was assumed that 20% of patrons to these businesses will be hotel guests arriving by foot internally from within the hotel building, not requiring an additional vehicle trip. This rate is consistent with the internal capture rate assumed in the *Parking Demand Analysis Study*. The Mixed-Use

(MXD) Trip Generation Model was also utilized to determine if this level of internalization was reasonable. The MXD Model was developed by Fehr & Peers and the Environmental Protection Agency (EPA), and it accounts for the site context and other factors to estimate potential internalization and multimodal trip reductions. The MXD results confirmed that a 20% internal capture rate is appropriate for the mix of uses that make up the proposed Project.

A 30% pass-by credit was assumed for the retail use per the most recent edition of the ITE *Trip Generation Handbook* (3^{rd} Edition). Pass-by trips are those vehicles already passing the proposed Project location, and therefore these are not new trips to the overall roadway network, but are instead existing trips that are already in the Beverly Hills Business Triangle and will visit the proposed retail use.

An adjustment was also made based on trip generation estimates for the existing commercial uses that will be demolished to make way for the proposed Project. Because some of the existing uses are currently vacant, the trip credit has been applied only for existing, active uses to account for the vehicle trips already on the roadway network.

No additional credits were applied to the Project trip generation. However, it should be noted that hotel and club employees who wish to travel by transit would be provided with free transit passes, and secure bicycle parking, showers, and lockers, and charging facilities for e-bicycles would be provided to encourage bicycle commuting, both of which measures may reduce employee vehicle trips.

Table 7 provides the detailed trip generation estimates for the proposed Project. After making the appropriate adjustments, the maximum development proposed in the Project will generate approximately 2,360 daily vehicle trips, of which up to approximately 90 vehicle trips are projected to be generated during the AM peak travel hour and up to approximately 220 vehicle trips are projected to be generated during the PM peak travel hour.

Table 7: Trip Generation Estimates

Land Use	Quantity	Trip Estimates						
		Daily	AM			PM		
			In	Out	Total	In	Out	Total
Hotel	115 rooms	961	32	22	54	35	34	69
Private Membership Club	500 members	180	16	4	20	32	8	40
Quality Restaurant	25,094 sf	2,104	9	9	18	131	65	196
	Internal Capture[1]	*(421)*	*(2)*	*(2)*	*(4)*	*(26)*	*(13)*	*(39)*
Retail	24,976 sf	943	14	9	23	46	49	95
	Internal Capture[1]	*(189)*	*(3)*	*(2)*	*(5)*	*(9)*	*(10)*	*(19)*
	Pass-by Reduction[2]	*(226)*	*(3)*	*(2)*	*(5)*	*(11)*	*(12)*	*(23)*
Day Spa	12,936 sf	188	8	8	16	3	16	19
	Internal Capture[1]	*(37)*	*(1)*	*(2)*	*(3)*	*(1)*	*(3)*	*(4)*
	Total Gross Vehicle Trips	**3,503**	**70**	**44**	**114**	**200**	**134**	**334**
Existing, Active Uses[3]	30,246 sf	(1,142)	(18)	(10)	(28)	(55)	(60)	(115)
	TOTAL NET VEHICLE TRIPS	**2,361**	**52**	**34**	**86**	**145**	**74**	**219**

Notes: Detailed trip generation calculation contained in **Appendix C**.
[1] Internal capture rate assumed to be 20%.
[2] Pass-by reduction assumed to be 30% based on the ITE *Trip Generation Handbook* (3rd Edition).
[3] Trip generation for existing, active uses was based on the ITE Trip Generation Rate for general retail; ITE Land Use 820 – Shopping Center rates are shown in Table 6.

These Project trips were then broken down into the following trip types: employees, visitors arriving by private vehicle and using the valet, and visitors arriving by shared mobility transportation network companies (TNC), such as Uber or Lyft. The proliferation of TNCs in recent years is important to consider in a project of this type and size. Pick-up and drop-off trips, such as those utilizing TNC services, do not utilize site parking but they still generate a vehicle trip to and from the Project site. In order to account for TNCs, it was assumed that TNCs will account for 50% of the vehicle trips generated by the restaurant, and 66.6% of the vehicle trips generated by the hotel, based on observed drive ratios provided in the *Parking Demand Analysis Study*. Since each inbound TNC trip also results in an outbound TNC trip, the demand for inbound and outbound TNC trips were estimated and the higher of the two calculations was assumed for both directions to account for TNCs that drop off a patron and leave the Project site without picking up a new passenger. The percentage of trips generated by employees traveling to the Project site was also estimated using the parking demand estimates from the *Parking Demand Analysis Study*. The reason that employment trip generation is estimated separately in the table below is because these vehicles would self-park whereas visitors to the site would utilize the motor court. **Table 8** provides the breakdown of Project trips by type.

Table 8: Project Trips by Type

Land Use	Vehicle Trip Estimates						
	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Total Gross Vehicle Trips	3,503	70	44	114	200	134	334
Total Estimated Employee Trips	521	10	6	16	30	20	50
Total Estimated Visitor Valet Trips	1,501	35	19	54	95	65	160
Estimated Visitor TNC Trips[1,2]	1,482	25	(19) 25	(44) 50	75	(49) 75	(124) 150
Adjusted Total Gross Vehicle Trips	**3,503**	**70**	**50**	**120**	**200**	**160**	**360**

Notes:

(1) TNCs assumed to be 50% of the vehicle trips generated by the restaurant, and 66.6% of the vehicle trips generated by the hotel, based on observed drive ratios provided in the *Parking Demand Analysis Study* technical memorandum (July 16, 2020).

(2) Where inbound and outbound trips were unequal, the higher of the two calculations was assumed for both directions to account for TNCs that drop off a patron and leave the Project site without picking up a new passenger.

While the transportation assessment only considers a trip credit for existing uses that are currently active, the trip generation of the historic uses were also estimated to illustrate the vehicle travel demand for the Project in comparison to full occupancy of the existing uses on the site. **Table 9** compares the proposed Project trip generation to the historic trip generation of the site (i.e., when all existing uses were in operation). As shown, the Project will result in a net increase of 1,359 daily trips, including 67 AM peak hour trips and 144 PM peak hour trips, as compared to the historic trip generation of the Project site.

Table 9: Project vs. Historical Site Trip Generation

Land Use	Vehicle Trip Estimates						
	Daily	AM			PM		
		In	Out	Total	In	Out	Total
Total Gross Project Vehicle Trips (without credit)	3,503	70	50	120	200	160	360
Total Existing Uses Historic (Fully Occupied) Vehicle Trips	2,144	34	19	53	104	112	216
NET CHANGE IN SITE-GENERATED VEHICLE TRIPS	**1,359**	**36**	**31**	**67**	**96**	**48**	**144**

4.1.3 Alley Realignment

An existing north-south public alley connects South Santa Monica Boulevard and Brighton Way, parallel with North Rodeo Drive and North Beverly Drive. The alley is currently accessed via South Santa Monica Boulevard, and bisects the Project site. The Project proposes to relocate that portion of the alley that bisects the Project site and relocate it, as a public alley, so that it connects North Beverly Drive to Brighton Way. Accordingly, existing trips into the alley from South Santa Monica Boulevard will reroute with implementation of the proposed Project to instead use the new alley entrance on North Beverly Drive.

The new alley access will be located approximately 120 feet north of the existing signalized mid-block crossing on North Beverly Drive. Access from northbound North Beverly Drive will be provided by a two-way left-turn lane which immediately north of the proposed alley transitions to a northbound left-turn pocket for vehicles turning onto South Santa Monica Boulevard. Across from the proposed alley location are two adjacent driveways for parking garages on the east side of North Beverly Drive. The relocation of the alley will require on-street parking to be relocated or removed, potentially affecting up to five (5) parking stalls.

The alley will remain one-way in the westbound/southbound direction, and the existing exit onto Brighton Way will remain as is. All existing parking or valet operations located in the alley will remain unchanged for uses adjacent to the Project site. The proposed alley relocation, including the turn geometry, has been designed in accordance with City standards to ensure emergency vehicle, utility, delivery, and other service truck access.

The existing alley travel demand was obtained from Appendix IS-9: Hirsch Green Alley Study of the *Cheval Blanc Beverly Hills Specific Plan: Initial Study* (Eyestone Environmental, 2020) (Alley Study). The Alley Study collected weekday and weekend traffic counts at the South Santa Monica Boulevard alley entrance in April and May of 2019. The following average weekday counts were observed:

- 718 vehicles per day (485 from the west / 233 from the east)
- 110 vehicles in the AM peak hour (62 from the west / 48 from the east)
- 48 vehicles in the PM peak hour (35 from the west / 13 from the east)

Based on the alley travel demands observed in 2019, these vehicles were rerouted to the realigned alley entrance on North Beverly Drive. Vehicles can enter the alley from northbound or southbound North Beverly Drive and will exit the alley onto Brighton Way.

4.1.4 Project Access

Visitors to the Project traveling either by private vehicle or TNC are assumed to access the Project using the motor court located on South Santa Monica Boulevard. Those traveling by private vehicle will use the valet service, and valet employees will then drive arriving guests' vehicles eastbound on South Santa Monica Boulevard and southbound on North Beverly Drive to enter the reconfigured alley and access the Project's subterranean parking. For departing guests, valet employees will use the direct outbound access from the subterranean parking to the motor court. The Project site plan is provided in **Figure 3**.

Similar to the existing alley entrance, vehicles could enter the motor court from both eastbound and westbound South Santa Monica Boulevard. Left turns out of the motor court will be prohibited such that all departing vehicles must turn right onto South Santa Monica Boulevard.

Employees at the Project will self-park in the subterranean parking garage. Employees will exit the Project using the southbound alley onto Brighton Way. Service and utility vehicles will access the Project site via the relocated alley entrance on North Beverly Drive. Full-size utility and service vehicles will use the two loading bays provided at the south end of the Project site, while smaller van-sized utility sand service vehicles will use two additional loading bays provided in the below-grade parking structure. A complete description of the Project's access and circulation is provided in the *Cheval Blanc Beverly Hills Specific Plan Transportation Impact Report* (Fehr & Peers, September 2021).

4.2 Trip Distribution

The distribution of Project trips was estimated based on existing counts available for intersections adjacent or near the proposed Project site. Based on traffic flows in the area, it is expected that 10% of proposed Project generated trips will originate in the north, 30% will originate in the east, 30% will originate in the south, and 30% will originate in the west. The Project is composed of a mixture of uses (hotel, private membership club, restaurant, retail, and day spa) and it is expected that hotel guests will travel to and from a wide variety of locations for various purposes. Potential trip purposes could include shopping, recreation, and work trips for employees.

The Project trip distribution is shown in **Figure 4**, and the resulting Project trip assignment is provided in **Figure 5**. The directionality of the arrows in Figure 4 illustrate inbound travel flows to the Project site; however, outbound travel flows are expected to follow the same pattern.

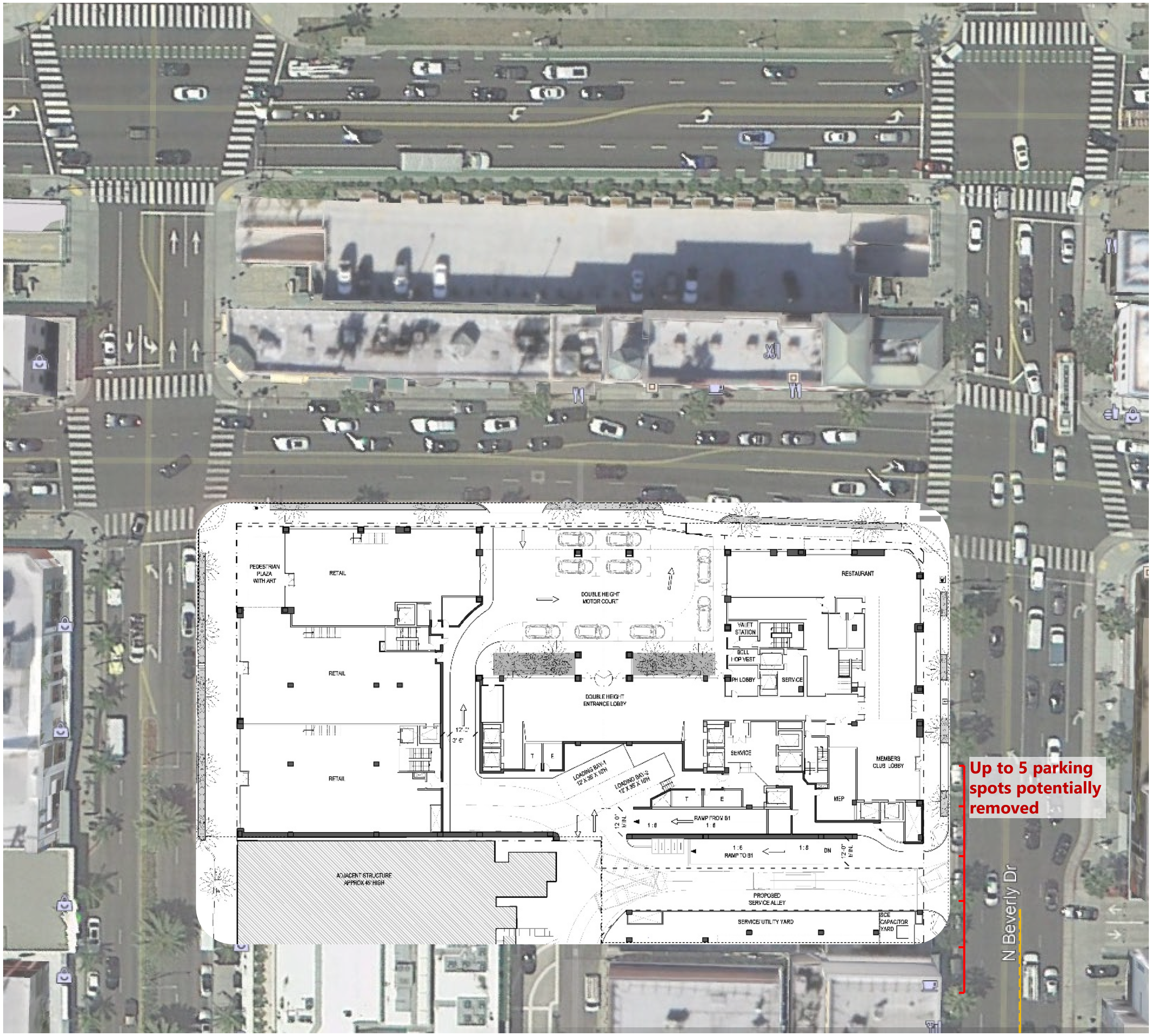


Figure 3

Site Plan

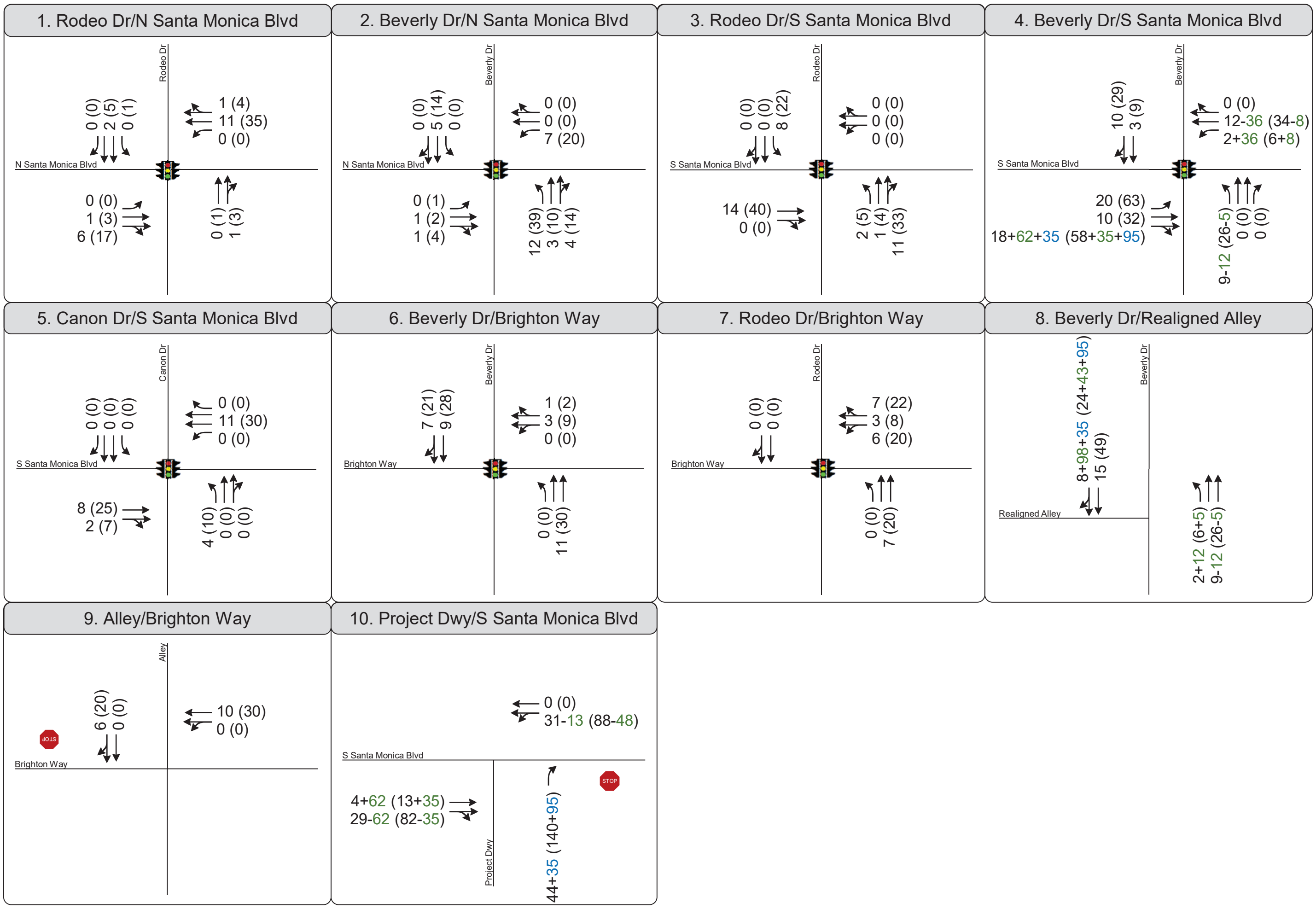
Legend

Project Location

Trip Distribution

Figure 4

Project Trip Distribution



AM (PM) Peak Hour Traffic Volume

Project trips, except valet-driven

Alley reassignment

Valet-driven trips

Lane Configuration

Stop Sign

Signalized

Figure 5

Cheval Blanc Beverly Hills
Specific Plan
Project Trip Assignment

5. Existing Plus Project Conditions

This chapter presents the traffic operations analysis for Existing plus Project conditions with the proposed Project.

5.1 Existing Plus Project Traffic Volumes

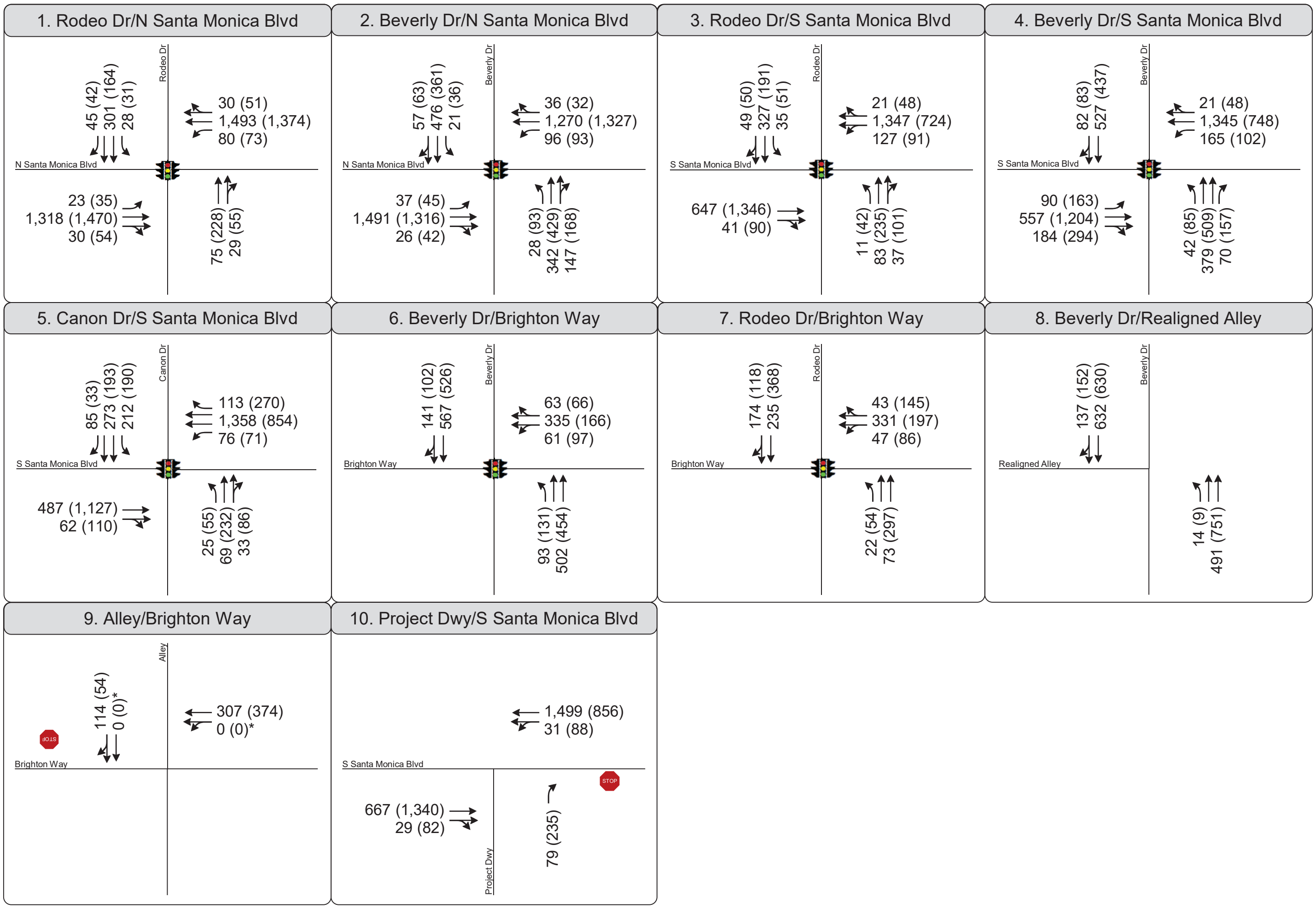
The traffic volumes for the proposed Project are comprised of the existing conditions traffic volumes with the proposed Project land uses in place and the rerouted alley trips. The trip generation and trip distribution presented in the above chapter were used to generate the Existing plus Project traffic volumes provided in **Figure 6**.

5.2 Existing Plus Project Intersection Operations

As shown in **Table 10**, when comparing Existing conditions to the Existing plus Project intersection operations, most of the study intersections experience an increase in average vehicle delay with the Project land use and site access changes in place. In some cases, an intersection may experience a decrease in average vehicle delay with the Project in place. This can occur when the Project adds traffic to a movement that has less delay than the overall average for the intersection, which results in a slight decrease in the weighted average delay. Despite the changes in delay, most study intersections are projected to operate at LOS D or better under Existing plus Project conditions. The following intersections are projected to operate at LOS E or LOS F levels with implementation of the Project under one or both peak hours:

- Although North Rodeo Drive/South Santa Monica Boulevard is projected to operate at LOS E under Existing plus Project conditions in the AM peak hour, the addition of Project traffic increases average vehicle delay by only one (1) second. Therefore, the increase in delay at this location does not exceed the City's criteria for signalized intersections.
- At the North Beverly Drive/South Santa Monica Boulevard intersection, operations are expected to degrade from LOS D to LOS E in the PM peak hour, and LOS D will be exacerbated in the AM peak hour, with increases in delay of more than 10 seconds. Therefore, the increase in delay at this location exceeds the City's criteria for signalized intersections.

The LOS calculation sheets are included in **Appendix B.**



* Data was not available for volumes on the alley south of Brighton Way, so these turning movements are shown 0. No changes to these volumes would occur as a result of the proposed project.

AM (PM) Peak Hour Traffic Volume

Lane Configuration

Stop Sign

Signalized

Figure 6

Peak Hour Traffic Volumes and Lane Configurations - Existing Plus Project Conditions

Table 10: Existing (2019) No Project and Existing Plus Project Intersection Operations

Intersection	Control	Peak Hour	Existing No Project		Existing Plus Project		Change in Delay (sec/veh)[3]
			Delay (sec/veh)[1]	LOS[2]	Delay (sec/veh)[1]	LOS[2]	
1. N Rodeo Dr/N Santa Monica Blvd	Signalized	AM	23.7	C	24.0	C	0.3
		PM	33.9	C	35.6	D	1.7
2. N Beverly Dr/N Santa Monica Blvd	Signalized	AM	37.8	D	40.7	D	2.9
		PM	31.6	C	36.0	D	4.4
3. N Rodeo Dr/S Santa Monica Blvd[4]	Signalized	AM	63.9	E	64.9	E	1.0
		PM	27.9	C	30.9	C	3.0
4. N Beverly Dr/S Santa Monica Blvd	Signalized	AM	35.9	D	53.8	D	**17.9**
		PM	41.0	D	57.0	E	**16.0**
5. N Cañon Dr/S Santa Monica Blvd	Signalized	AM	29.4	C	29.7	C	0.3
		PM	19.7	B	18.3	B	-1.4
6. N Rodeo Dr/Brighton Wy	Signalized	AM	11.4	B	12.5	B	1.1
		PM	11.9	B	12.5	B	0.6
7. N Beverly Dr/Brighton Wy[4]	Signalized	AM	25.9	C	26.0	C	0.1
		PM	26.7	C	26.8	C	0.1
8. N Beverly Dr/Realigned Alley	SSSC	AM	DNE	N/A	10.0	A	N/A
		PM	DNE	N/A	15.8	C	N/A
9. Brighton Wy/Alley	SSSC	AM	10.2	B	10.3	B	0.1
		PM	9.7	A	9.8	A	0.1
10. Alley (or future Project Dwy)/S Santa Monica Blvd	SSSC	AM	9.6	A	9.4*	A*	-0.2
		PM	14.5	B	18.0*	C*	3.5

Source: Fehr & Peers, 2021.
Notes:
SSSC indicates Side street stop-controlled intersection.
DNE indicates the intersection does not exist under this scenario.
Underlined text indicates a LOS of D, E, or F.
Bold text indicates that the delay or LOS exceeds the City's criteria as a result of the Project trips.
[1] Whole intersection weighted average stopped delay expressed in seconds per vehicle for signalized intersections. The vehicular delay for the worst movement is reported for the SSSC intersections.
[2] LOS calculations performed using the *Highway Capacity Manual* 6th Edition (*HCM 6*) method.
[3] Unacceptable seconds of delay per vehicle and LOS or increases in seconds of delay per vehicle highlighted in **bold**.
[4] LOS calculations performed using the *Highway Capacity Manual* 5th Edition method due to signal phasing.
* Operations only on the public roadway approaches are reported.

5.3 Comparison of Intersection Operations with Existing Uses in Operation

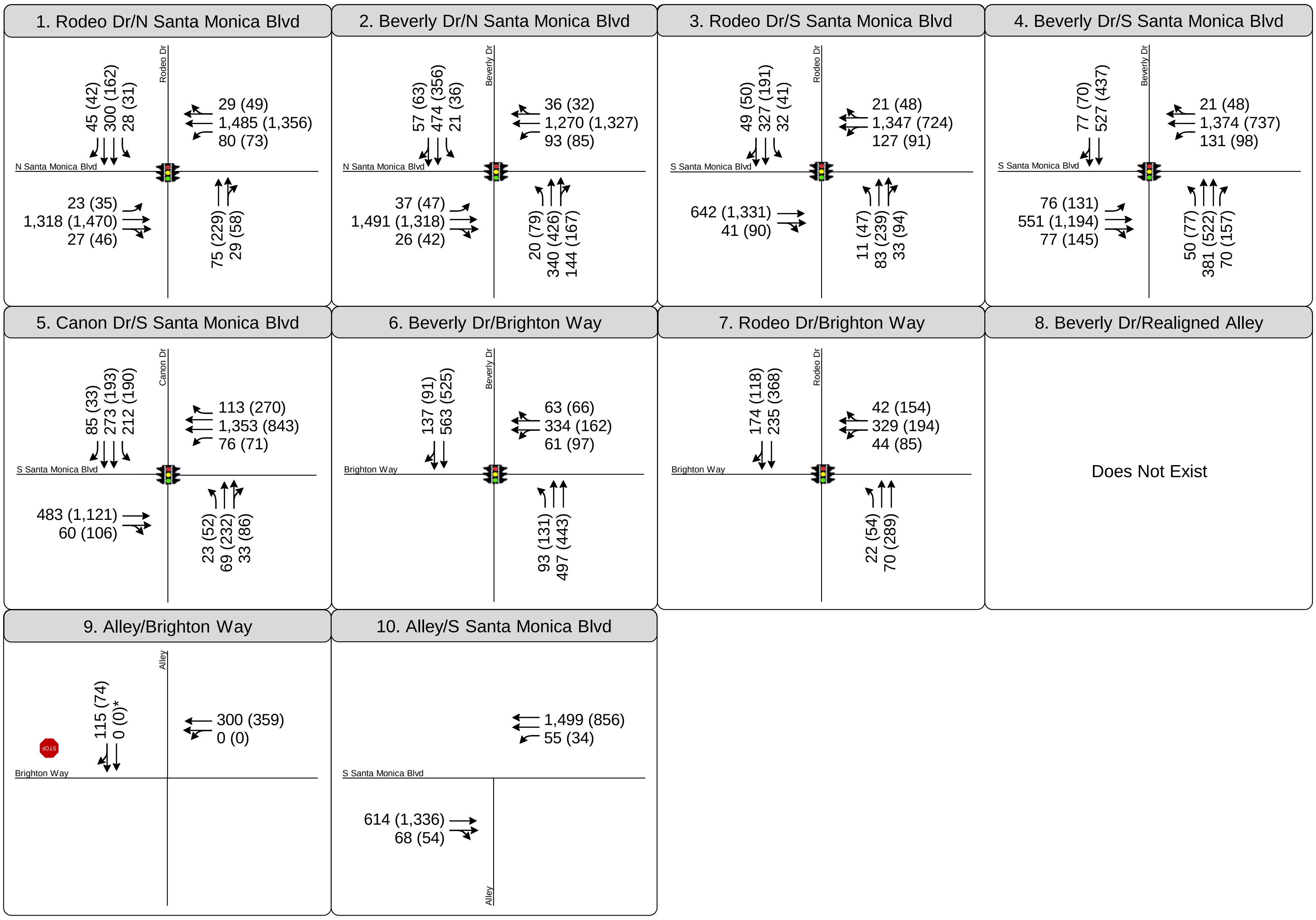
The Project's effects on traffic operations reported above compares traffic operations with the Project to existing traffic conditions. As discussed in the land use section above, the proposed Project would replace 56,787 sf of existing commercial space in four structures located at:

- 456 North Rodeo Drive: 6,895 sf commercial with 9 surface parking spaces that is currently occupied
- 468 North Rodeo Drive: 20,265 sf commercial with 6 surface parking spaces that is currently vacant
- 449, 451, and 453 North Beverly Drive: 6,276 sf commercial that is currently vacant
- 461-465 North Beverly Drive: 23,351 sf institutional with 5 surface and 45 underground spaces with driveway access on South Santa Monica Boulevard that is currently occupied

Given that some of the existing commercial spaces are vacant, a trip credit was not applied for these uses to the proposed Project. In addition, the vehicle-trips being generated by these vacant uses are not included in the Existing conditions analysis. Therefore, an additional traffic operations analysis was completed assuming full occupancy of the existing uses that are located on the Project site, referred to as the "Existing plus Existing Uses in Operation" scenario. The purpose of this additional scenario is to compare traffic operations with the Project to the historic trip generation of the existing uses on the Project site and determine if the Project would exceed the City's criteria for intersection operations.

As shown above in **Table 9**, full occupancy of the existing commercial spaces on the Project site would generate approximately 2,145 daily trips with approximately 55 trips occurring during the AM peak hour and 215 trips occurring in the PM peak hour. Since some of the existing uses are currently occupied, only the trips generated from unoccupied uses were added to existing traffic volumes. The trip assignment was based on the parking location for the existing unoccupied uses and the vehicle trips were routed through each of the study intersections. The traffic volumes for Existing plus Existing Uses in Operation are shown on **Figure 7**.

The results of the LOS analysis for Existing plus Existing Uses in Operation are presented in **Table 11** and the corresponding LOS calculation sheets are included in **Appendix B**. When comparing Existing plus Existing Uses in Operation to the Existing plus Project intersection operations, the increase in vehicle delay is lower at most of the study intersections than the results shown above comparing the Project to Existing conditions. However, one study intersection, North Beverly Drive/South Santa Monica Boulevard, would still have an increase in average vehicle delay of more than 10 seconds during the AM (LOS D) and PM (LOS E) peak hours, when comparing Existing plus Existing Uses in Operation to the Existing plus Project intersection operations, which exceeds the City's criteria for signalized intersections.



*Data was not available for volumes on the alley south of Brighton Way, so these turning movements are shown 0. No changes to these volumes would occur as a result of the proposed project.

AM (PM) Peak Hour Traffic Volume

Lane Configuration

Stop Sign

Signalized

Figure 7

Peak Hour Traffic Volumes and Lane Configurations - Existing Plus Existing Uses in Operation

Table 11: Existing (2019) Plus Existing Uses in Operation and Existing Plus Project Intersection Operations

Intersection	Control	Peak Hour	Existing Plus Existing Uses in Operation		Existing Plus Project		Change in Delay (sec/veh)[3]
			Delay (sec/veh)[1]	LOS[2]	Delay (sec/veh)[1]	LOS[2]	
1. N Rodeo Dr/N Santa Monica Blvd	Signalized	AM	23.7	C	24.0	C	0.3
		PM	34.7	C	35.6	D	0.9
2. N Beverly Dr/N Santa Monica Blvd	Signalized	AM	38.5	D	40.7	D	2.2
		PM	33.3	C	36.0	D	2.7
3. N Rodeo Dr/S Santa Monica Blvd[4]	Signalized	AM	64.2	E	64.9	E	0.7
		PM	29.6	C	30.9	C	1.3
4. N Beverly Dr/S Santa Monica Blvd	Signalized	AM	36.7	D	53.8	D	**17.1**
		PM	43.0	D	57.0	E	**14.0**
5. N Cañon Dr/S Santa Monica Blvd	Signalized	AM	29.5	C	29.7	C	0.2
		PM	16.5	B	18.3	B	1.8
6. N Rodeo Dr/Brighton Wy	Signalized	AM	11.4	B	12.5	B	1.1
		PM	12.0	B	12.5	B	0.5
7. N Beverly Dr/Brighton Wy[4]	Signalized	AM	25.9	C	26.0	C	0.1
		PM	26.7	C	26.8	C	0.1
8. N Beverly Dr/Realigned Alley	SSSC	AM	DNE	N/A	10.0	A	N/A
		PM	DNE	N/A	15.8	C	N/A
9. Brighton Wy/Alley	SSSC	AM	10.2	B	10.3	B	0.1
		PM	9.9	A	9.8	A	-0.1
10. Alley (or future Project Dwy)/S Santa Monica Blvd	SSSC	AM	9.7	A	9.4*	A*	-0.3
		PM	15.4	C	18.0*	C*	2.6

Source: Fehr & Peers, 2021.
Notes:
SSSC indicates Side street stop-controlled intersection.
DNE indicates the intersection does not exist under this scenario.
Underlined text indicates a LOS of D, E, or F.
Bold text indicates that the delay or LOS exceeds the City's criteria as a result of the Project trips
[1] Whole intersection weighted average stopped delay expressed in seconds per vehicle for signalized intersections. The vehicular delay for the worst movement is reported for the SSSC intersections.
[2] LOS calculations performed using the *Highway Capacity Manual* 6th Edition (*HCM 6*) method.
[3] Unacceptable seconds of delay per vehicle and LOS or increases in seconds of delay per vehicle highlighted in **bold**.
[4] LOS calculations performed using the Highway Capacity Manual 5th Edition method due to signal phasing.
* Operations only on the public roadway approaches are reported.

6. Future (2026) Conditions

This chapter addresses the traffic operations with the proposed Project under Future (2026) conditions, which represents conditions as they are expected to occur with the buildout of the Project.

6.1 Future Traffic Volume Forecasts

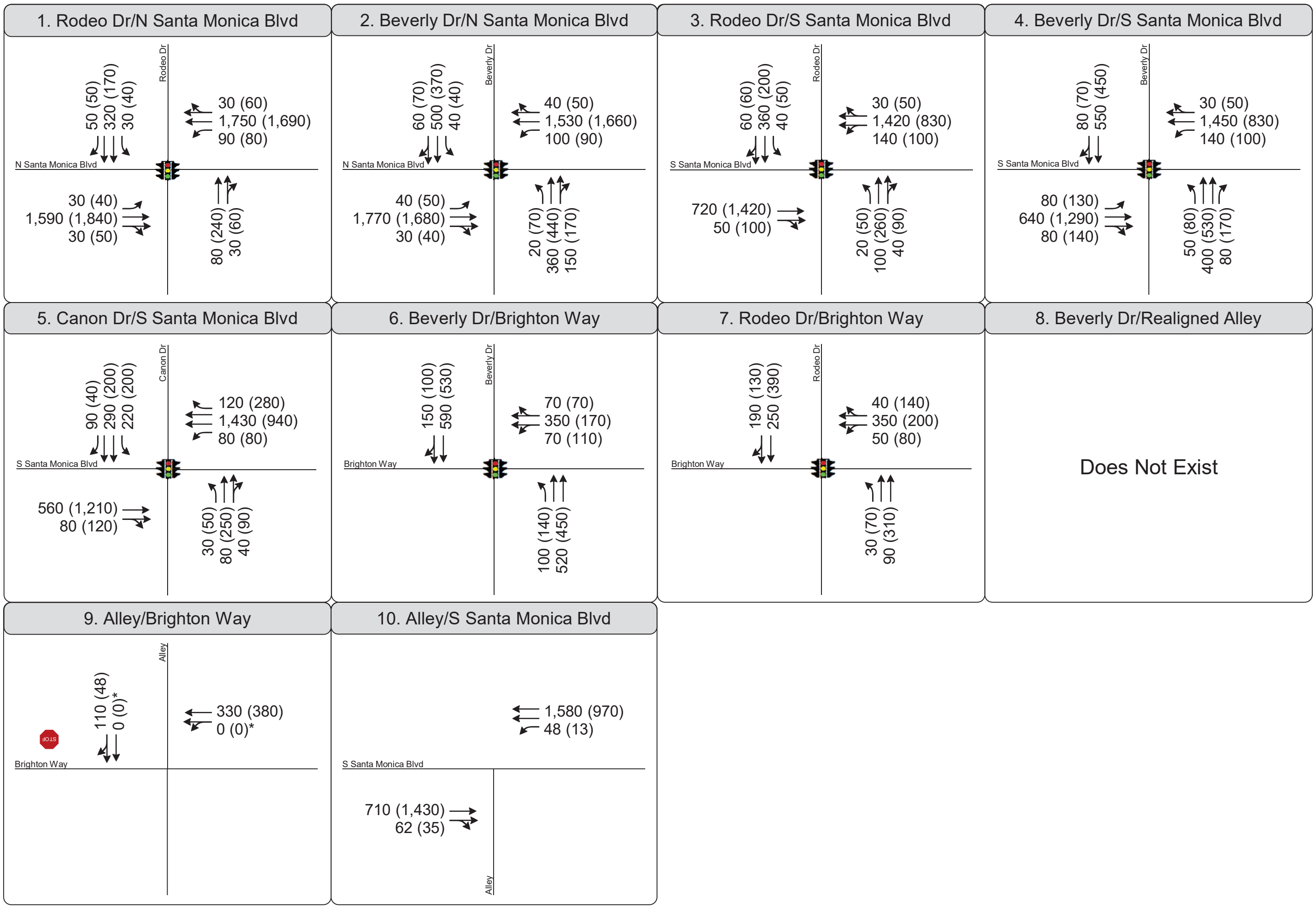
The year 2026 was used to forecast Future conditions to reflect the expected opening year of the proposed Project. The growth in traffic in the study area reflects future travel demands from regional growth and related projects in the vicinity of the Project site. A variety of sources were consulted to develop the cumulative traffic forecasts. These sources include:

- Historic traffic counts, grown to reflect Existing (2019) conditions
- Traffic from approved and pending projects in the City of Beverly Hills, City of Los Angeles, and City of West Hollywood
- Ambient growth in existing traffic volumes to reflect growth in regional traffic (a growth rate of 0.5% per year was applied to the 2019 traffic volumes to reflect this ambient growth)

The list of related projects used to develop the cumulative traffic forecasts is provided in the *Cheval Blanc Beverly Hills Specific Plan Transportation Impact Report* (Fehr & Peers, September 2021).

Traffic volumes for Future (2026) No Project conditions are shown on **Figure 8**.

The Project trip assignment was superimposed on Future (2026) No Project traffic volumes to yield Future (2026) plus Project volumes, shown on **Figure 9**.



* Data was not available for volumes on the alley south of Brighton Way, so these turning movements are shown 0. No changes to these volumes would occur as a result of the proposed project.

AM (PM) Peak Hour Traffic Volume

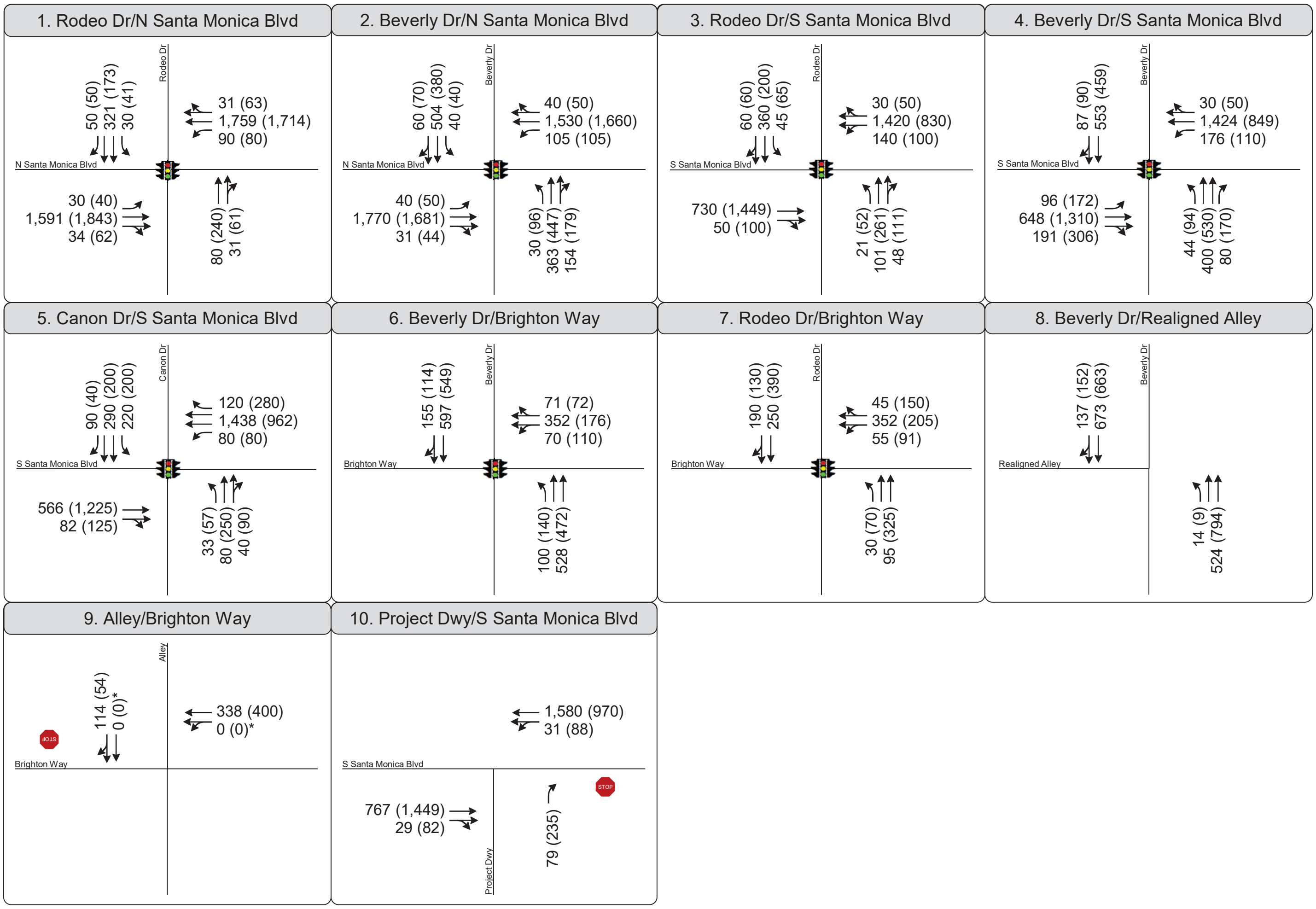
Lane Configuration

Stop Sign

Signalized

Figure 8

Peak Hour Traffic Volumes and Lane Configurations - Future (2026) No Project Conditions



* Data was not available for volumes on the alley south of Brighton Way, so these turning movements are shown 0. No changes to these volumes would occur as a result of the proposed project.

AM (PM) Peak Hour Traffic Volume

Lane Configuration

Stop Sign

Signalized

Figure 9

Peak Hour Traffic Volumes and Lane Configurations - Future (2026) Plus Project Conditions

6.2 Future Intersection Operations

The results of the LOS analysis for Future (2026) conditions with and without the Project are presented in **Table 12** and the corresponding LOS calculation sheets are included in **Appendix B**. Under Future No Project conditions, three of the study intersections operate at LOS F during one or both of the peak hours. With the Project in place, most of the study intersections experience an increase in average vehicle delay while some experience a decrease in delay. As noted in the Existing plus Project conditions analysis, a decrease in delay can occur when the Project adds traffic to a movement that has less delay than the overall average for the intersection, which results in a slight decrease in the weighted average delay. The following intersections are projected to operate at LOS E or LOS F levels with implementation of the Project under one or both peak hours:

- The North Rodeo Drive/North Santa Monica Boulevard intersection is projected to operate at LOS F under Future conditions both without and with the Project in the PM peak hour. The addition of Project traffic is estimated to increase average vehicle delay by 5.1 seconds during this time period, exceeding the delay criteria provided in the City's guidelines for signalized intersections. Although delays could be slightly reduced through signal timing modifications, this improvement is considered infeasible due to the coordination between traffic signals along the greater North Santa Monica Boulevard corridor.
- The North Beverly Drive/North Santa Monica Boulevard intersection is projected to operate at LOS F under Future conditions both without and with the Project in both peak hours. In the AM peak hour, the addition of Project traffic is estimated to increase average vehicle delay by 5.4 seconds, while in the PM peak hour the addition of Project traffic is estimated to increase delay by 4.8 seconds. Therefore, this location exceeds the delay criteria of the City's guidelines during the AM peak hour. Although operations could be slightly improved through signal timing modifications, this improvement is considered infeasible due to the coordination between traffic signals along the greater North Santa Monica Boulevard corridor.
- Although the North Rodeo Drive/South Santa Monica Boulevard intersection is projected to operate at LOS F under Future conditions both without and with the Project in the AM peak hour, the addition of Project traffic increases average vehicle delay by less than one (1) second. Therefore, this location does not exceed the delay criteria of the City's analysis guidelines.
- At the North Beverly Drive/South Santa Monica Boulevard intersection, operations are expected to degrade from LOS D to LOS E in both peak hours, with increases in delay of nearly 20 seconds. Therefore, this location exceeds the delay criteria of the City's guidelines during both peak periods. A potential option for improving operations would be to modify the Project site plan to widen the roadway and provide a separate eastbound right-turn lane pocket. However, this improvement would reduce average vehicle delay by less than five (5) seconds and the delay increase would still exceed the City's delay criteria. In addition, widening South Santa Monica Boulevard to provide a separate right-turn lane would increase crossing distances for pedestrians and preclude the sidewalk widening that is proposed as part of the Project. Given the vibrant pedestrian environment in the Project area, this would be an undesirable outcome.

Table 12: Future (2026) No Project and Future Plus Project Intersection Operations

Intersection	Control	Peak Hour	Future No Project Delay (sec/veh)[1]	Future No Project LOS[2]	Future Plus Project Delay (sec/veh)[1]	Future Plus Project LOS[2]	Change in Delay (sec/veh)[3]
1. N Rodeo Dr/N Santa Monica Blvd	Signalized	AM	47.8	D	49.0	D	1.2
		PM	103.4	F	108.5	F	**5.1**
2. N Beverly Dr/N Santa Monica Blvd	Signalized	AM	87.0	F	92.4	F	**5.4**
		PM	98.0	F	102.8	F	4.8
3. N Rodeo Dr/S Santa Monica Blvd[4]	Signalized	AM	98.4	F	99.3	F	0.9
		PM	41.9	D	45.3	D	3.4
4. N Beverly Dr/S Santa Monica Blvd	Signalized	AM	38.6	D	57.0	E	**18.4**
		PM	41.6	D	61.3	E	**19.7**
5. N Cañon Dr/S Santa Monica Blvd	Signalized	AM	34.4	C	35.6	D	1.2
		PM	23.9	C	22.1	C	-1.8
6. N Rodeo Dr/Brighton Wy	Signalized	AM	11.8	B	13.3	B	1.5
		PM	12.3	B	13.0	B	0.7
7. N Beverly Dr/Brighton Wy[4]	Signalized	AM	29.1	C	29.2	C	0.1
		PM	29.4	C	29.4	C	0.0
8. N Beverly Dr/Realigned Alley	SSSC	AM	DNE	N/A	10.2	B	N/A
		PM	DNE	N/A	16.2	C	N/A
9. Brighton Wy/Alley	SSSC	AM	10.4	B	10.5	B	0.1
		PM	9.8	A	9.9	A	0.1
10. Alley (or future Project Dwy)/S Santa Monica Blvd	SSSC	AM	10.1	B	9.9*	A*	-0.2
		PM	15.6	C	19.9*	C*	4.3

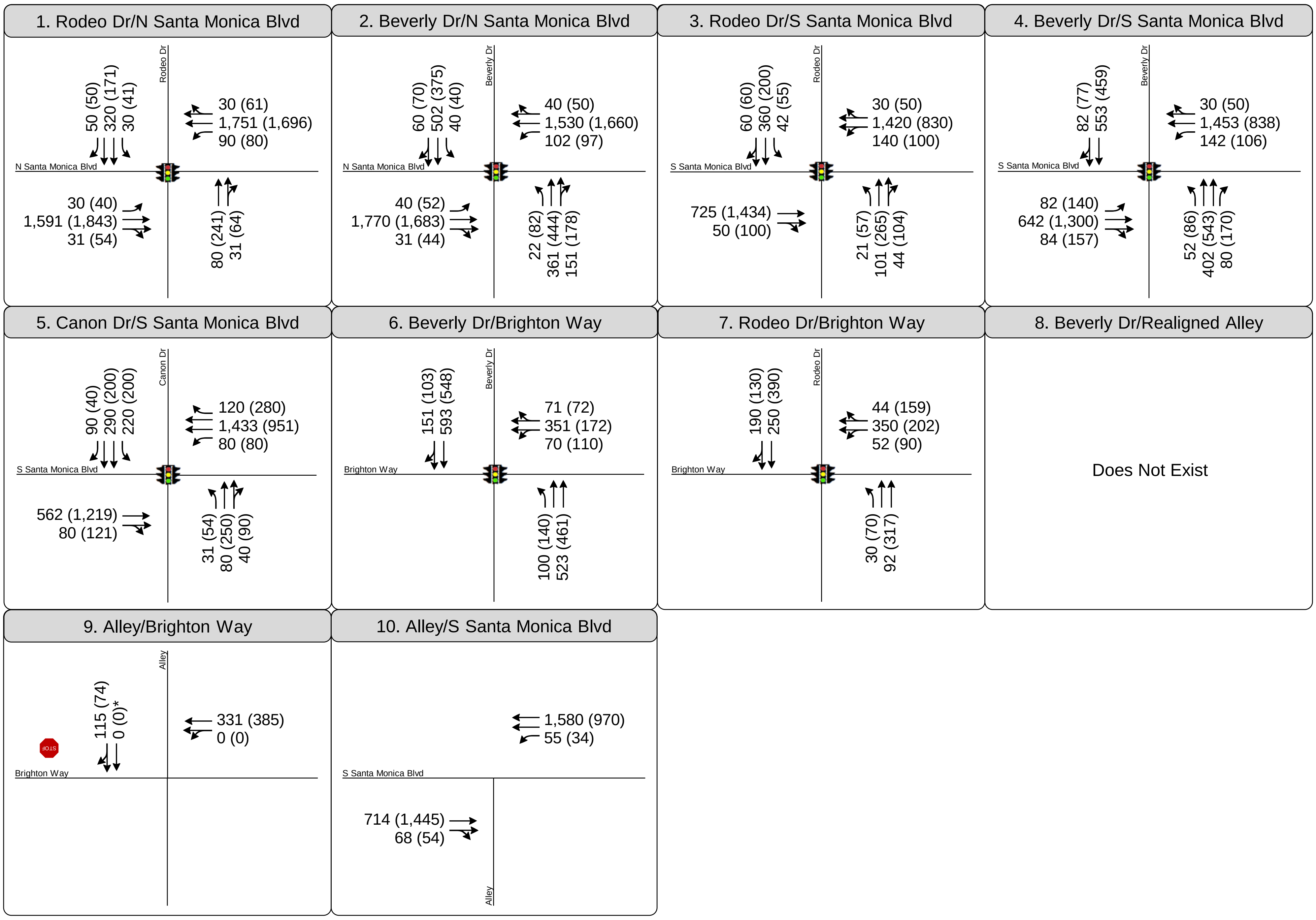
Source: Fehr & Peers, 2021.
Notes:
SSSC indicates Side street stop-controlled intersection.
DNE indicates the intersection does not exist under this scenario.
Underlined text indicates a LOS of D, E, or F.
Bold text indicates that the delay or LOS exceeds the City's criteria as a result of the Project trips.
[1] Whole intersection weighted average stopped delay expressed in seconds per vehicle for signalized intersections. The vehicular delay for the worst movement is reported for the SSSC intersections.
[2] LOS calculations performed using the *Highway Capacity Manual* 6th Edition (*HCM 6*) method.
[3] Unacceptable seconds of delay per vehicle and LOS or increases in seconds of delay per vehicle highlighted in **bold**.
[4] LOS calculations performed using the *Highway Capacity Manual* 5th Edition method due to signal phasing.
* Operations only on the public roadway approaches are reported.

6.3 Comparison of Future Intersection Operations with Existing Uses in Operation

Similar to the comparison of Existing and Existing plus Project conditions described above, the Project's effects on traffic operations reported under Future (2026) conditions compares traffic operations with the Project to Future traffic conditions. The Future (2026) conditions analysis did not account for vehicle-trips being generated by commercial uses on the Project site that are currently vacant. Therefore, an additional traffic operations analysis was completed assuming full occupancy of the existing uses under Future (2026) conditions, referred to as the "Future plus Existing Uses in Operation" scenario. The purpose of this additional scenario is to compare traffic operations with the Cheval Blanc Specific Plan to the historic trip generation of the existing uses on the Project site in addition to planned development projects and ambient growth in the study area under Future (2026) conditions and determine if the Project would exceed the City's criteria for intersection operations.

The vehicle-trips generated from unoccupied uses were added to Future (2026) traffic volume forecasts. The trip assignment was based on the parking location for the existing unoccupied uses and the vehicle trips were routed through each of the study intersections. The traffic volumes for Future plus Existing Uses in Operation are shown on **Figure 10**.

The results of the LOS analysis for Future plus Existing Uses in Operation and Future plus Project conditions are presented in **Table 13** and the corresponding LOS calculation sheets are included in **Appendix B**. When comparing Future plus Existing Uses in Operation to the Future plus Project intersection operations, the increase in vehicle delay is lower at most of the study intersections than the results shown above comparing the Project to Future conditions. As discussed above, three intersections would exceed the City's criteria for signalized intersections when comparing Future plus Project to Future conditions. Under this additional scenario that accounts for full occupancy of the existing commercial uses on the Project site, only one intersection would exceed the City's criteria for signalized intersections, during both peak times. Similar to the results of the Existing plus Project analysis presented above, the intersection that would continue to experience an increase in delay that exceeds the City's criteria is North Beverly Drive/South Santa Monica Boulevard. This intersection would continue to have an increase in average vehicle delay of more than 10 seconds during the AM (LOS E) and PM (LOS E) peak hours, when comparing Future plus Existing Uses in Operation to the Future plus Project intersection operations.



*Data was not available for volumes on the alley south of Brighton Way, so these turning movements are shown 0. No changes to these volumes would occur as a result of the proposed project.

AM (PM) Peak Hour Traffic Volume

Lane Configuration

Stop Sign

Signalized

Figure 10

Peak Hour Traffic Volumes and Lane Configurations - Future (2026) Plus Existing Uses in Operation

Table 13: Future (2026) Plus Existing Uses in Operation and Future Plus Project Intersection Operations

Intersection	Control	Peak Hour	Future Plus Existing Uses in Operation		Future Plus Project		Change in Delay (sec/veh)[3]
			Delay (sec/veh)[1]	LOS[2]	Delay (sec/veh)[1]	LOS[2]	
1. N Rodeo Dr/N Santa Monica Blvd	Signalized	AM	48.0	D	49.0	D	1.0
		PM	105.0	F	108.5	F	3.5
2. N Beverly Dr/N Santa Monica Blvd	Signalized	AM	88.3	F	92.4	F	4.1
		PM	101.5	F	102.8	F	1.3
3. N Rodeo Dr/S Santa Monica Blvd[4]	Signalized	AM	98.4	F	99.3	F	0.9
		PM	43.4	D	45.3	D	1.9
4. N Beverly Dr/S Santa Monica Blvd	Signalized	AM	39.5	D	57.0	E	**17.5**
		PM	46.5	D	61.3	E	**14.8**
5. N Cañon Dr/S Santa Monica Blvd	Signalized	AM	35.1	D	35.6	D	0.5
		PM	23.9	C	22.1	C	-1.8
6. N Rodeo Dr/Brighton Wy	Signalized	AM	11.8	B	13.3	B	1.5
		PM	12.4	B	13.0	B	0.6
7. N Beverly Dr/Brighton Wy[4]	Signalized	AM	29.1	C	29.2	C	0.1
		PM	29.3	C	29.4	C	0.1
8. N Beverly Dr/Realigned Alley	SSSC	AM	DNE	N/A	10.2	B	N/A
		PM	DNE	N/A	16.2	C	N/A
9. Brighton Wy/Alley	SSSC	AM	10.4	B	10.5	B	0.1
		PM	10	A	9.9	A	-0.1
10. Alley (or future Project Dwy)/S Santa Monica Blvd	SSSC	AM	10.2	B	9.9*	A*	-0.3
		PM	16.6	C	19.9*	C*	3.3

Source: Fehr & Peers, 2021.
Notes:
SSSC indicates Side street stop-controlled intersection.
DNE indicates the intersection does not exist under this scenario.
Underlined text indicates a LOS of D, E, or F.
Bold text indicates that the delay or LOS exceeds the City's criteria as a result of the Project trips.
[1] Whole intersection weighted average stopped delay expressed in seconds per vehicle for signalized intersections. The vehicular delay for the worst movement is reported for the SSSC intersections.
[2] LOS calculations performed using the *Highway Capacity Manual* 6th Edition (*HCM 6*) method.
[3] Unacceptable seconds of delay per vehicle and LOS or increases in seconds of delay per vehicle highlighted in **bold**.
[4] LOS calculations performed using the Highway Capacity Manual 5th Edition method due to signal phasing.
* Operations only on the public roadway approaches are reported.

6.4 Site Access Operations

In addition to studying intersection LOS, an evaluation of queueing at the Project access points was also performed. Because static Synchro queue calculations did not appear sensitive to shared versus exclusive turn lanes, a SimTraffic analysis was performed.

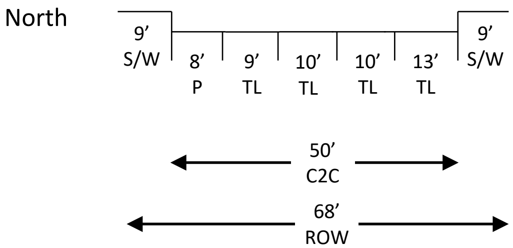
For the primary Project access to the motorcourt from South Santa Monica Boulevard, the westbound left-turn from South Santa Monica Boulevard is projected to have a demand of 31 vehicles in the AM peak hour and 88 vehicles in the PM peak hour. Under Future plus Project conditions, the projected 95th percentile queue is approximately 4 vehicles in the AM peak hour and the upstream intersection is blocked 6% of the time. In the PM peak hour the projected 95th percentile queue is approximately 3 vehicles and the upstream intersection is blocked 11% of the time. These queues extend to the upstream intersection because the existing configuration of South Santa Monica Boulevard does not provide storage for westbound left turns into the Project site, and therefore, any queued vehicles would block westbound through traffic. To provide a turn lane into the motor court, the following could be implemented:

- Remove one parking spot from the north side of South Santa Monica Boulevard in order to extend the painted median to the Project motorcourt entrance, as illustrated on **Figure 11**. This would provide a separate storage lane for westbound left-turning vehicles such that westbound through traffic would not be impeded by vehicles waiting to turn. It is noted that the parking spot that would be removed under this alternative site access option was not in operation as of February 2021, when it was observed that a bag had been placed over the meter.

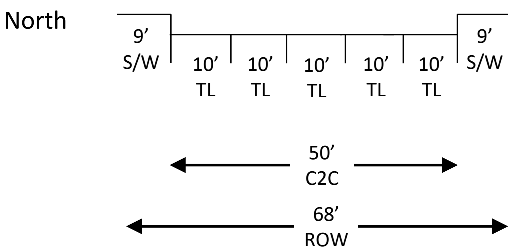
  This improvement would result in 95th percentile queues of only approximately 1 vehicle, and the upstream intersection would be blocked 2% of the time during both peak hours. SimTraffic queue summaries are provided in **Appendix D**.

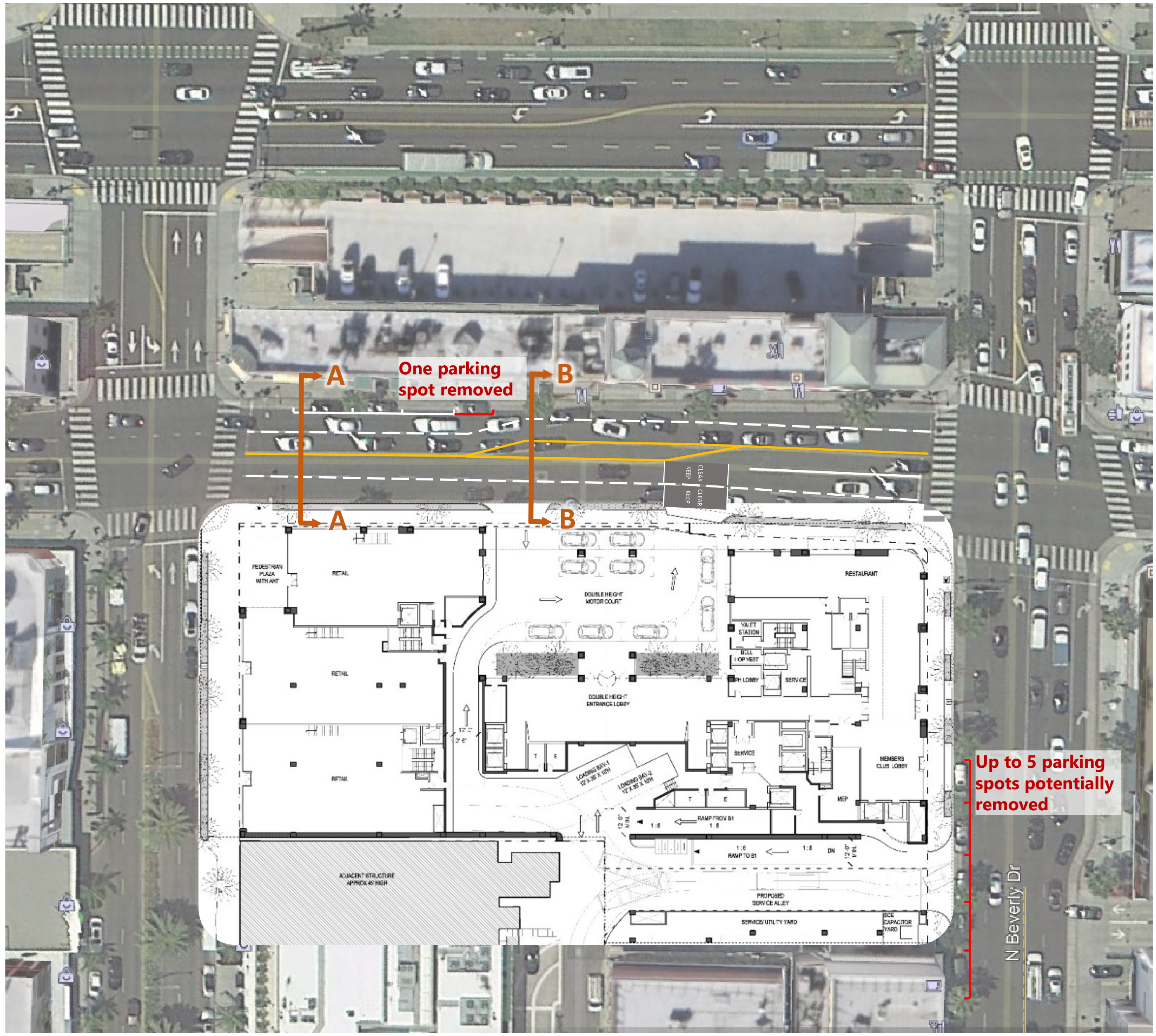
For the secondary Project access to the realigned alley, the northbound left-turn from North Beverly Drive is projected to have a demand of 14 vehicles in the AM peak hour and 9 vehicles in the PM peak hour. Under Future plus Project conditions, the projected 95th percentile queue is only 1 vehicle under both peak hours, indicating that the new alley location is not expected to cause operational issues along North Beverly Drive due to turning vehicles queueing.

A-A



B-B





“KEEP CLEAR” Pavement Striping

Figure 11

Alternative Site Access

Appendix A:
Historic Traffic Counts

Table A-1: Historic Count Summary

Intersection			Count Date
Number	North/South Street	East/West Street	
1	Rodeo Drive	Santa Monica Boulevard North	10/3/2013
2	Beverly Drive	Santa Monica Boulevard North	12/10/2019
3	Rodeo Drive	Santa Monica Boulevard South	Estimated
4	Beverly Drive	Santa Monica Boulevard South	9/21/2016
5	Canon Drive	Santa Monica Boulevard South	4/23/2019
6	Beverly Drive	Brighton Way	9/19/2017
7	Rodeo Drive	Brighton Way	8/15/2018
8	Beverly Drive	Realligned Alley	Estimated
9	Existing Alley	Brighton Way	Estimated
10	Existing Alley	Santa Monica Boulevard South	5/1/2019

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

City of Beverly Hills
N/S: N. Rodeo Drive
E/W: N. Santa Monica Boulevard
Weather: Sunny

File Name : BVHSMROAM
Site Code : 04213393
Start Date : 10/3/2013
Page No : 1

Groups Printed- Total Volume

	N. Santa Monica Boulevard Southbound				N. Rodeo Drive Westbound				N. Santa Monica Boulevard Northbound				N. Rodeo Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	7	394	1	402	0	7	5	12	7	181	1	189	2	38	13	53	656
07:15 AM	12	470	2	484	0	8	4	12	8	193	2	203	1	37	7	45	744
07:30 AM	10	471	4	485	0	5	3	8	10	252	8	270	2	46	11	59	822
07:45 AM	18	437	4	459	0	20	3	23	5	294	1	300	3	78	10	91	873
Total	47	1772	11	1830	0	40	15	55	30	920	12	962	8	199	41	248	3095
08:00 AM	15	386	7	408	0	15	6	21	6	299	4	309	5	53	7	65	803
08:15 AM	14	351	8	373	0	11	4	15	3	315	6	324	4	67	11	82	794
08:30 AM	20	363	5	388	0	22	6	28	9	313	6	328	3	81	7	91	835
08:45 AM	29	340	8	377	0	25	11	36	4	351	9	364	15	90	19	124	901
Total	78	1440	28	1546	0	73	27	100	22	1278	25	1325	27	291	44	362	3333
Grand Total	125	3212	39	3376	0	113	42	155	52	2198	37	2287	35	490	85	610	6428
Apprch %	3.7	95.1	1.2		0	72.9	27.1		2.3	96.1	1.6		5.7	80.3	13.9		
Total %	1.9	50	0.6	52.5	0	1.8	0.7	2.4	0.8	34.2	0.6	35.6	0.5	7.6	1.3	9.5	

	N. Santa Monica Boulevard Southbound				N. Rodeo Drive Westbound				N. Santa Monica Boulevard Northbound				N. Rodeo Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	15	**386**	7	**408**	0	15	6	21	6	299	4	309	5	53	7	65	803
08:15 AM	14	351	**8**	373	0	11	4	15	3	315	6	324	4	67	11	82	794
08:30 AM	20	363	5	388	0	22	6	28	**9**	313	6	328	3	81	7	91	835
08:45 AM	**29**	340	8	377	0	**25**	**11**	**36**	4	**351**	**9**	**364**	**15**	**90**	**19**	**124**	**901**
Total Volume	78	1440	28	1546	0	73	27	100	22	1278	25	1325	27	291	44	362	3333
% App. Total	5	93.1	1.8		0	73	27		1.7	96.5	1.9		7.5	80.4	12.2		
PHF	.672	.933	.875	.947	.000	.730	.614	.694	.611	.910	.694	.910	.450	.808	.579	.730	.925

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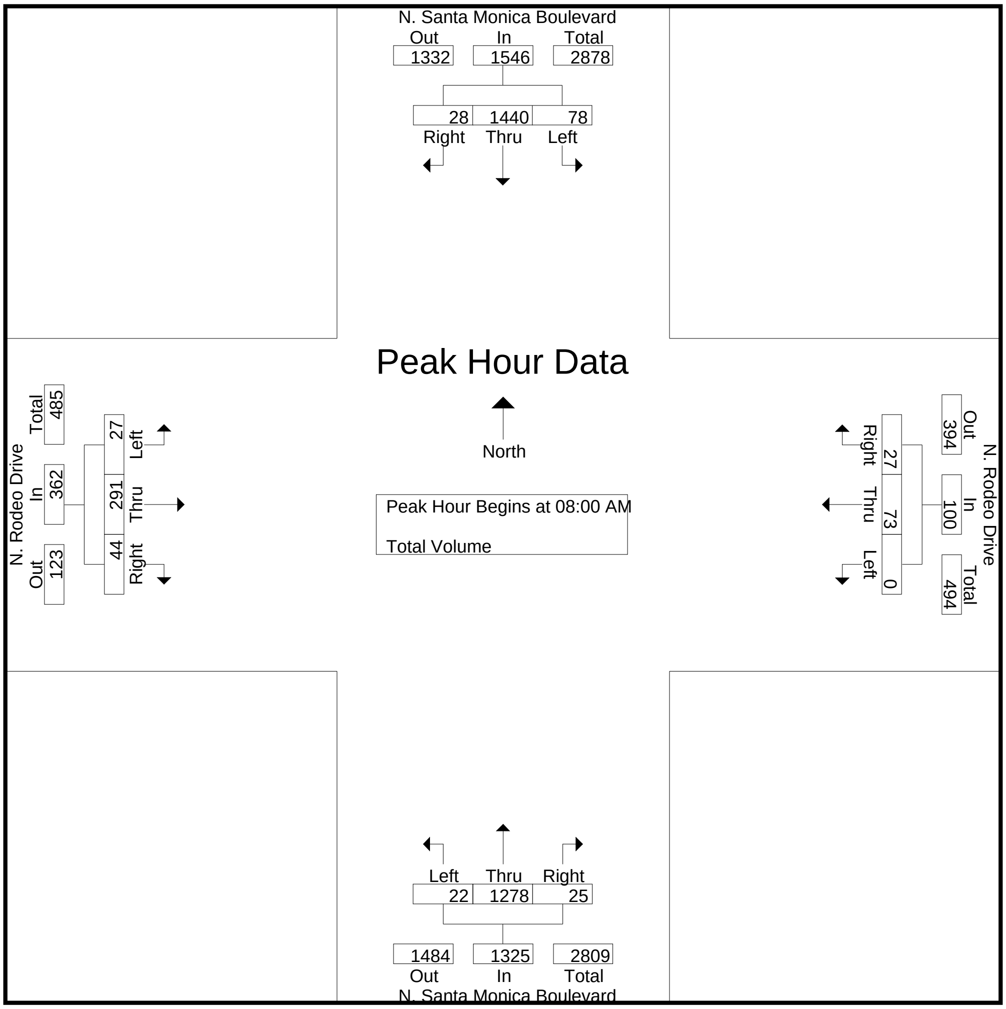
Start Date : 10/3/2013
Page No : 2



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				08:00 AM				08:00 AM				08:00 AM			
+0 mins.	12	470	2	484	0	15	6	21	6	299	4	309	5	53	7	65
+15 mins.	10	**471**	4	**485**	0	11	4	15	3	315	6	324	4	67	11	82
+30 mins.	**18**	437	4	459	0	22	6	28	**9**	313	6	328	3	81	7	91
+45 mins.	15	386	**7**	408	0	**25**	**11**	**36**	4	**351**	**9**	**364**	**15**	**90**	**19**	**124**
Total Volume	55	1764	17	1836	0	73	27	100	22	1278	25	1325	27	291	44	362
% App. Total	3	96.1	0.9		0	73	27		1.7	96.5	1.9		7.5	80.4	12.2	
PHF	.764	.936	.607	.946	.000	.730	.614	.694	.611	.910	.694	.910	.450	.808	.579	.730

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City of Beverly Hills
N/S: N. Rodeo Drive
E/W: N. Santa Monica Boulevard
Weather: Sunny

File Name : BVHSMROPM
Site Code : 04213393
Start Date : 10/3/2013
Page No : 1

Groups Printed- Total Volume

	N. Santa Monica Boulevard Southbound				N. Rodeo Drive Westbound				N. Santa Monica Boulevard Northbound				N. Rodeo Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	31	321	19	371	3	48	16	67	6	340	13	359	7	46	17	70	867
04:15 PM	20	340	12	372	0	42	11	53	11	349	13	373	9	34	11	54	852
04:30 PM	18	312	13	343	0	44	14	58	13	370	12	395	7	37	15	59	855
04:45 PM	15	280	9	304	0	56	16	72	10	325	16	351	4	31	8	43	770
Total	84	1253	53	1390	3	190	57	250	40	1384	54	1478	27	148	51	226	3344
05:00 PM	19	297	16	332	2	61	12	75	8	381	9	398	5	48	9	62	867
05:15 PM	19	323	8	350	0	57	17	74	10	340	15	365	8	41	13	62	851
05:30 PM	18	332	12	362	0	62	15	77	11	345	7	363	10	36	13	59	861
05:45 PM	15	358	11	384	1	41	8	50	5	358	10	373	6	31	6	43	850
Total	71	1310	47	1428	3	221	52	276	34	1424	41	1499	29	156	41	226	3429
Grand Total	155	2563	100	2818	6	411	109	526	74	2808	95	2977	56	304	92	452	6773
Apprch %	5.5	91	3.5		1.1	78.1	20.7		2.5	94.3	3.2		12.4	67.3	20.4		
Total %	2.3	37.8	1.5	41.6	0.1	6.1	1.6	7.8	1.1	41.5	1.4	44	0.8	4.5	1.4	6.7	

	N. Santa Monica Boulevard Southbound				N. Rodeo Drive Westbound				N. Santa Monica Boulevard Northbound				N. Rodeo Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. 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	**19**	297	**16**	332	**2**	61	12	75	8	**381**	9	**398**	5	**48**	9	**62**	**867**
05:15 PM	19	323	8	350	0	57	**17**	74	10	340	**15**	365	8	41	**13**	62	851
05:30 PM	18	332	12	362	0	**62**	15	**77**	**11**	345	7	363	**10**	36	13	59	861
05:45 PM	15	**358**	11	**384**	1	41	8	50	5	358	10	373	6	31	6	43	850
Total Volume	71	1310	47	1428	3	221	52	276	34	1424	41	1499	29	156	41	226	3429
% App. Total	5	91.7	3.3		1.1	80.1	18.8		2.3	95	2.7		12.8	69	18.1		
PHF	.934	.915	.734	.930	.375	.891	.765	.896	.773	.934	.683	.942	.725	.813	.788	.911	.989

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City of Beverly Hills
N/S: N. Rodeo Drive
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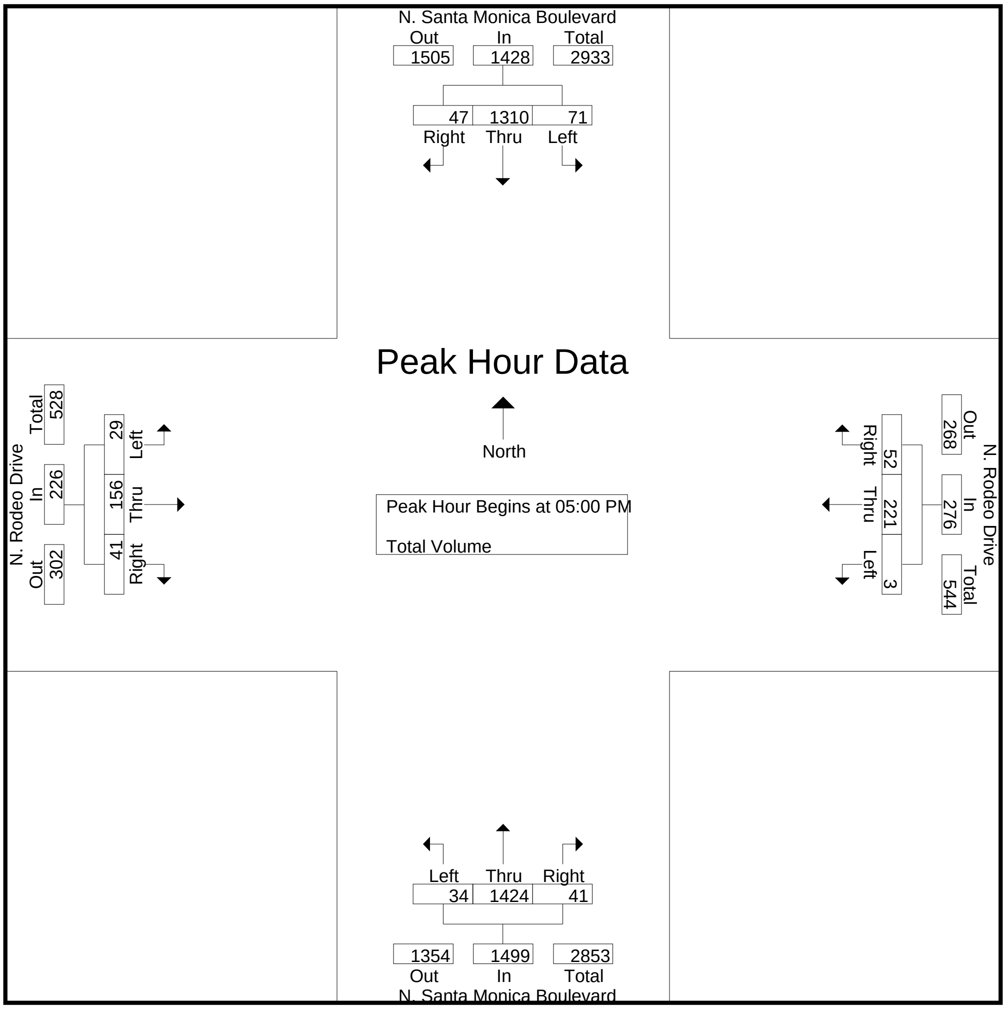
File Name : BVHSMROPM
Site Code : 04213393
Start Date : 10/3/2013
Page No : 2



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

	05:00 PM				04:45 PM				04:15 PM				04:00 PM			
+0 mins.	**19**	297	**16**	332	0	56	16	72	11	349	13	373	7	**46**	**17**	**70**
+15 mins.	19	323	8	350	**2**	61	12	75	**13**	370	12	395	**9**	34	11	54
+30 mins.	18	332	12	362	0	57	**17**	74	10	325	**16**	351	7	37	15	59
+45 mins.	15	**358**	11	**384**	0	**62**	15	**77**	8	**381**	9	**398**	4	31	8	43
Total Volume	71	1310	47	1428	2	236	60	298	42	1425	50	1517	27	148	51	226
% App. Total	5	91.7	3.3		0.7	79.2	20.1		2.8	93.9	3.3		11.9	65.5	22.6	
PHF	.934	.915	.734	.930	.250	.952	.882	.968	.808	.935	.781	.953	.750	.804	.750	.807

Location:	Beverly Hills	Date:	10/3/2013
N/S:	N. Santa Monica Boulevard	File :	BVHSMRO
E/W:	Rodeo Drive		

PEDESTRIANS

	North Leg N. Santa Monica Boulevard	East Leg Rodeo Drive	South Leg N. Santa Monica Boulevard	West Leg Rodeo Drive	
	Pedestrians	**Pedestrians**	**Pedestrians**	**Pedestrians**	TOTAL
7:00 AM	1	0	1	2	4
7:15 AM	2	0	0	7	9
7:30 AM	4	0	3	8	15
7:45 AM	1	0	0	2	3
8:00 AM	2	0	1	4	7
8:15 AM	1	0	4	10	15
8:30 AM	3	3	1	8	15
8:45 AM	5	3	1	7	16
TOTAL VOLUMES:	19	6	11	48	84

	North Leg N. Santa Monica Boulevard	East Leg Rodeo Drive	South Leg N. Santa Monica Boulevard	West Leg Rodeo Drive	
	Pedestrians	**Pedestrians**	**Pedestrians**	**Pedestrians**	TOTAL
4:00 PM	14	1	10	4	29
4:15 PM	25	12	14	5	56
4:30 PM	15	7	9	9	40
4:45 PM	26	7	8	7	48
5:00 PM	14	4	6	6	30
5:15 PM	18	8	7	10	43
5:30 PM	15	9	2	4	30
5:45 PM	26	1	6	10	43
TOTAL VOLUMES:	153	49	62	55	319

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951-268-6268

Location: Beverly Hills
N/S: N. Santa Monica Boulevard
E/W: Rodeo Drive

Date: 10/3/2013
File : BVHSMRO

BICYCLES

	North Leg N. Santa Monica Boulevard	East Leg Rodeo Drive	South Leg N. Santa Monica Boulevard	West Leg Rodeo Drive	
	Bicycles	**Bicycles**	**Bicycles**	**Bicycles**	TOTAL
7:00 AM	0	2	2	1	5
7:15 AM	0	1	1	4	6
7:30 AM	0	0	1	3	4
7:45 AM	0	0	0	7	7
8:00 AM	0	0	0	4	4
8:15 AM	0	0	0	7	7
8:30 AM	0	0	0	4	4
8:45 AM	0	0	1	5	6
TOTAL VOLUMES:	0	3	5	35	43

	North Leg N. Santa Monica Boulevard	East Leg Rodeo Drive	South Leg N. Santa Monica Boulevard	West Leg Rodeo Drive	
	Bicycles	**Bicycles**	**Bicycles**	**Bicycles**	TOTAL
4:00 PM	0	1	0	1	2
4:15 PM	0	1	0	1	2
4:30 PM	1	1	0	0	2
4:45 PM	1	4	0	2	7
5:00 PM	2	1	0	1	4
5:15 PM	0	0	0	0	0
5:30 PM	0	4	0	2	6
5:45 PM	1	3	0	3	7
TOTAL VOLUMES:	5	15	0	10	30

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Turning Movement Count Report AM

Location ID: 1
North/South: N Beverly Dr
East/West: N Santa Monica Blvd

Date: 12/10/19
City: Beverly Hills, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	24	75	3	6	379	12	23	47	1	0	195	7	772
7:15	18	82	4	2	374	32	19	58	2	5	265	8	869
7:30	15	83	8	7	368	19	25	52	3	3	277	8	868
7:45	9	85	5	6	354	20	28	80	5	5	351	14	962
8:00	13	100	4	6	258	23	37	77	3	5	379	11	916
8:15	15	121	3	10	345	20	31	76	6	8	367	10	1012
8:30	14	116	6	8	329	22	36	87	5	3	366	13	1005
8:45	15	135	8	12	338	26	39	99	4	9	379	3	1067

Total Volume:	123	797	41	57	2745	174	238	576	29	38	2579	74	7471
Approach %	13%	83%	4%	2%	92%	6%	28%	68%	3%	1%	96%	3%	

Peak Hr Begin:	8:00												
PHV	57	472	21	36	1270	91	143	339	18	25	1491	37	4000
PHF	0.870			0.929			0.880			0.983			0.937

Prepared by City Count, LLC. (www.citycount.com)

Turning Movement Count Report PM

Location ID: 1
North/South: N Beverly Dr
East/West: N Santa Monica Blvd
Date: 12/10/19
City: Beverly Hills, CA

	Southbound			Westbound			Northbound			Eastbound			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
16:00	22	86	9	4	302	23	42	91	22	9	330	6	946
16:15	12	99	12	13	311	16	45	88	15	9	322	6	948
16:30	16	97	9	9	321	23	51	88	12	6	286	3	921
16:45	12	84	5	8	286	27	41	77	12	8	338	5	903
17:00	17	88	8	9	326	19	41	112	17	11	348	13	1009
17:15	12	80	8	8	315	18	31	116	19	7	327	18	959
17:30	19	78	10	12	358	22	46	114	15	8	320	9	1011
17:45	15	105	10	3	328	19	41	80	16	12	320	5	954

Total Volume:	125	717	71	66	2547	167	338	766	128	70	2591	65	7651
Approach %	14%	79%	8%	2%	92%	6%	27%	62%	10%	3%	95%	2%	

Peak Hr Begin:	17:00												
PHV	63	351	36	32	1327	78	159	422	67	38	1315	45	3933
PHF	0.865			0.916			0.926			0.940			0.973

Pedestrian/Bicycle Count Report

Location ID: 1
North/South: N Beverly Dr
East/West: N Santa Monica Blvd

Date: 12/10/19
City: Beverly Hills, CA

Leg:	*North*		*East*		*South*		*West*	
Class:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	3	0	1	0	6	0	0	0
7:15	6	0	4	0	8	0	1	0
7:30	5	0	2	0	11	0	4	0
7:45	3	1	1	0	4	0	1	0
8:00	11	0	8	0	8	0	0	0
8:15	5	1	3	0	7	0	0	0
8:30	9	0	1	0	9	0	5	0
8:45	13	0	4	1	9	0	5	0
11:00	19	0	0	0	10	0	6	0
11:15	16	0	5	0	4	0	10	1
11:30	25	0	11	0	8	0	8	0
11:45	46	0	5	0	8	1	20	0
12:00	17	0	10	0	7	0	11	0
12:15	35	1	1	0	5	0	8	0
12:30	23	1	10	1	3	0	4	0
12:45	29	1	21	0	10	0	12	0
1:00	44	0	18	0	12	0	12	0
1:15	24	0	14	0	15	0	12	0
1:30	29	2	18	1	13	0	12	1
1:45	20	0	10	0	9	1	8	0
7:00	29	0	10	0	15	0	9	1
7:15	25	0	8	0	6	1	7	1
7:30	18	0	12	0	7	0	9	0
7:45	12	0	6	0	12	1	9	0
8:00	7	0	8	0	8	1	8	0
8:15	13	0	10	0	7	0	6	0
8:30	13	0	3	0	5	0	8	0
8:45	4	0	4	0	6	0	1	0

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5573-003 **Day:** Wednesday

City: Beverly Hills **Date:** 9/21/2016

AM

NS/EW Streets:	Santa Monica Blvd S			Santa Monica Blvd S			Beverly Dr			Beverly Dr			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1.5	0.5	1	1.5	0.5	0	2	0	1	2	1	
7:00 AM	5	61	17	21	196	2	0	66	15	10	49	6	448
7:15 AM	10	58	14	21	307	4	0	85	20	8	63	14	604
7:30 AM	11	89	17	34	350	12	0	95	24	6	65	17	720
7:45 AM	11	121	13	36	258	11	0	119	28	18	75	26	716
8:00 AM	25	153	13	32	313	4	0	111	11	13	94	18	787
8:15 AM	17	114	18	19	395	5	0	108	33	13	102	14	838
8:30 AM	18	129	21	32	327	4	0	138	15	11	72	13	780
8:45 AM	13	145	20	44	316	8	0	159	15	10	105	24	859
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	110	870	133	239	2462	50	0	881	161	89	625	132	5752
APPROACH %'s :	9.88%	78.17%	11.95%	8.69%	89.49%	1.82%	0.00%	84.55%	15.45%	10.52%	73.88%	15.60%	

UTURNS	NB	SB	EB	WB
7:00 AM	0	0	0	0
7:15 AM	0	0	0	1
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
TOTAL	0	0	0	1

PEAK HR START TIME :	800 AM												TOTAL
PEAK HR VOL :	73	541	72	127	1351	21	0	516	74	47	373	69	3264
PEAK HR FACTOR :		0.898			0.894			0.848			0.879		0.950

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5573-003 **Day:** Wednesday

City: Beverly Hills **Date:** 9/21/2016

PM

NS/EW Streets:	Santa Monica Blvd S			Santa Monica Blvd S			Beverly Dr			Beverly Dr			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1.5	0.5	1	1.5	0.5	0	2	0	1	2	1	
4:00 PM	22	259	42	26	174	4	0	111	8	19	134	38	837
4:15 PM	36	220	42	24	186	7	0	96	14	21	100	36	782
4:30 PM	28	298	31	24	172	8	0	127	12	15	127	46	888
4:45 PM	26	281	22	24	181	2	0	97	18	18	135	33	837
5:00 PM	28	286	36	20	175	9	0	95	19	21	132	41	862
5:15 PM	24	286	31	26	165	13	0	106	12	15	125	39	842
5:30 PM	26	282	32	22	193	11	0	95	13	15	123	42	854
5:45 PM	41	312	27	23	185	14	0	126	18	19	121	33	919
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	231	2224	263	189	1431	68	0	853	114	143	997	308	6821
APPROACH %'s :	8.50%	81.82%	9.68%	11.20%	84.77%	4.03%	0.00%	88.21%	11.79%	9.88%	68.85%	21.27%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	119	1166	126	91	718	47	0	422	62	70	501	155	3477
PEAK HR FACTOR :		0.928			0.947			0.840			0.936		0.946

UTURNS				
	NB	SB	EB	WB
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
	NB	SB	EB	WB
TOTAL	0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Santa Monica Blvd S and Beverly Dr , Beverly Hills

Date:	9/21/2016
Day:	Wednesday
Project #:	16-5573-003
City:	Beverly Hills

AM Peak Hour	800 AM
NOON Peak Hour	1230 PM
PM Peak Hour	500 PM

Peak Hour Summary

N

Southbound Approach (Santa Monica Blvd S)

	Lanes 0.5	1.5	1	Out
AM	21	1351	127	610
NOON	42	770	133	852
PM	47	718	91	1321

Eastbound Approach (Beverly Dr)

	AM	NOON	PM
Out	467	547	667

Lanes		AM	NOON	PM
0	Left	0	0	0
2	Through	516	496	422
0	Right	74	93	62

Westbound Approach

	AM	NOON	PM	Lanes
Right	69	218	155	1
Through	373	430	501	2
Left	47	75	70	1
Out	715	788	639	

CONTROL

Signalized

Northbound Approach

	Out	Left	Through	Right
AM	1472	73	541	72
NOON	938	75	634	159
PM	850	119	1166	126
Lanes		1	1.5	0.5

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	6:00 PM

Total Ins & Outs

North Leg

AM	1499	610
NOON	945	852
PM	856	1321

East Leg

	AM	NOON	PM
	489	723	726
	715	788	639

West Leg

	AM	NOON	PM
	467	547	667
	590	589	484

South Leg

AM	1472	686
NOON	938	868
PM	850	1411

Total Volume Per Leg

Leg	AM	NOON	PM
North Leg	2109	1797	2177
East Leg	1204	1511	1365
West Leg	1057	1136	1151
South Leg	2158	1806	2261

National Data & Surveying Services

Intersection Turning Movement Count

Location: N Canon Dr & S Santa Monica Blvd
City: Beverly Hills
Control: Signalized

Project ID: Historical
Date: 4/23/2019

Total

NS/EW Streets:	N Canon Dr				N Canon Dr				S Santa Monica Blvd				S Santa Monica Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1.5	0.5	0	1	2	1	0	0	2	0	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	3	11	7	0	29	23	10	0	0	48	12	0	9	249	26	0	427
7:15 AM	2	12	4	0	44	30	16	0	0	65	14	0	7	310	40	0	544
7:30 AM	2	17	4	0	35	41	11	0	0	85	4	0	12	367	35	0	613
7:45 AM	2	13	7	0	36	49	16	0	0	126	11	0	12	330	39	0	641
8:00 AM	3	8	11	0	44	36	14	0	1	110	13	0	20	283	24	0	567
8:15 AM	7	16	10	0	45	43	19	0	1	105	13	0	11	310	34	0	614
8:30 AM	5	19	3	0	45	74	21	0	0	100	12	0	19	357	23	0	678
8:45 AM	6	13	10	0	59	59	19	0	0	115	9	0	19	356	39	0	704
9:00 AM	8	19	7	0	51	67	23	0	0	121	23	0	20	326	26	0	691
9:15 AM	3	18	13	0	57	73	22	0	1	145	16	0	18	311	25	0	702
9:30 AM	3	28	17	0	42	77	14	0	1	132	27	0	16	256	25	0	638
9:45 AM	8	22	12	0	59	70	25	0	3	138	23	0	15	247	25	0	647
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	52	196	105	0	546	642	210	0	7	1290	177	0	178	3702	361	0	7466
APPROACH %'s :	14.73%	55.52%	29.75%	0.00%	39.06%	45.92%	15.02%	0.00%	0.47%	87.52%	12.01%	0.00%	4.20%	87.29%	8.51%	0.00%	
PEAK HR :	08:30 AM - 09:30 AM																TOTAL
PEAK HR VOL :	22	69	33	0	212	273	85	0	1	481	60	0	76	1350	113	0	2775
PEAK HR FACTOR :	0.688	0.908	0.635	0.000	0.898	0.922	0.924	0.000	0.250	0.829	0.652	0.000	0.950	0.945	0.724	0.000	0.985
	0.912				0.938				0.836				0.929				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1.5	0.5	0	1	2	1	0	0	2	0	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	11	58	34	0	52	50	11	0	1	228	27	0	25	204	40	0	741
3:15 PM	13	50	19	0	59	54	7	0	0	257	36	0	15	215	48	0	773
3:30 PM	6	49	19	0	45	43	11	0	2	253	20	0	17	206	47	0	718
3:45 PM	9	34	19	0	52	45	8	0	2	234	22	0	25	224	38	0	712
4:00 PM	11	55	36	0	53	47	12	0	1	258	30	0	14	205	46	0	768
4:15 PM	9	52	15	0	57	48	9	0	0	233	29	0	13	207	53	0	725
4:30 PM	13	50	29	0	50	50	13	0	0	255	19	0	17	181	55	0	732
4:45 PM	17	65	24	0	48	56	12	0	2	268	32	0	14	202	62	0	802
5:00 PM	9	63	24	0	40	36	6	0	0	280	20	0	16	199	52	0	745
5:15 PM	10	49	29	0	47	52	6	0	1	286	18	0	11	223	65	0	797
5:30 PM	9	62	24	0	48	41	10	0	0	260	23	0	15	227	76	0	795
5:45 PM	11	57	12	1	48	56	7	0	0	268	23	0	22	195	51	0	751
6:00 PM	14	61	29	0	50	46	7	0	0	283	28	0	20	194	74	0	806
6:15 PM	14	52	21	0	44	50	9	0	0	301	31	0	14	216	69	0	821
6:30 PM	18	53	21	0	31	48	6	0	3	269	34	0	22	204	65	0	774
6:45 PM	9	50	28	0	44	44	9	0	0	283	28	0	14	167	39	0	715
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	183	860	383	1	768	766	143	0	12	4216	420	0	274	3269	880	0	12175
APPROACH %'s :	12.82%	60.27%	26.84%	0.07%	45.80%	45.68%	8.53%	0.00%	0.26%	90.71%	9.04%	0.00%	6.19%	73.91%	19.90%	0.00%	
PEAK HR :	05:30 PM - 06:30 PM																TOTAL
PEAK HR VOL :	48	232	86	1	190	193	33	0	0	1112	105	0	71	832	270	0	3173
PEAK HR FACTOR :	0.857	0.935	0.741	0.250	0.950	0.862	0.825	0.000	0.000	0.924	0.847	0.000	0.807	0.916	0.888	0.000	0.966
	0.882				0.937				0.916				0.922				

National Data & Surveying Services

Intersection Turning Movement Count

Location: N Canon Dr & S Santa Monica Blvd
City: Beverly Hills
Control: Signalized

Project ID: Historical
Date: 4/23/2019

Bikes

NS/EW Streets:	N Canon Dr				N Canon Dr				S Santa Monica Blvd				S Santa Monica Blvd				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1	1.5	0.5	0	1	2	1	0	0	2	0	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2
7:45 AM	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	1	1	0	0	4
8:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0	3
9:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
9:45 AM	0	0	0	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	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	0	2	0	0	8	0	0	2	5	1	0	19
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	25.00%	62.50%	12.50%	0.00%	
PEAK HR :	08:30 AM - 09:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	2	0	0	3	0	0	2	2	0	0	9
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.750	0.000	0.000	0.500	0.500	0.000	0.000	0.563
					0.500				0.750				0.500				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	1	1.5	0.5	0	1	2	1	0	0	2	0	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	1	1	0	0	0	0	0	0	2	0	0	0	0	1	0	5
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	1	0	0	1	0	0	0	1	5	0	0	0	2	0	0	10
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	3	0	0	0	2	0	0	0	1	0	0	6
5:00 PM	0	3	0	0	0	0	0	0	0	0	1	0	0	1	0	0	5
5:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
6:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
6:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
6:45 PM	1	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	4
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	5	2	0	2	4	0	0	1	23	1	0	0	6	1	0	46
APPROACH %'s :	12.50%	62.50%	25.00%	0.00%	33.33%	66.67%	0.00%	0.00%	4.00%	92.00%	4.00%	0.00%	0.00%	85.71%	14.29%	0.00%	
PEAK HR :	05:30 PM - 06:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	6	0	0	0	1	0	0	7
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.250	0.000	0.000	0.583
									0.750				0.250				

National Data & Surveying Services

Intersection Turning Movement Count

Location: N Canon Dr & S Santa Monica Blvd | **Project ID:** Historical
City: Beverly Hills | **Date:** 4/23/2019

Pedestrians (Crosswalks)

NS/EW Streets:	N Canon Dr		N Canon Dr		S Santa Monica Blvd		S Santa Monica Blvd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	2	0	2	2	9	1	2	18
7:15 AM	1	3	0	1	2	2	4	4	17
7:30 AM	1	3	7	2	1	4	0	5	23
7:45 AM	1	5	3	2	0	3	2	7	23
8:00 AM	3	7	1	3	1	3	0	6	24
8:15 AM	2	5	4	3	2	0	2	7	25
8:30 AM	1	7	4	8	0	11	2	9	42
8:45 AM	1	14	1	8	0	10	4	19	57
9:00 AM	0	4	3	5	4	11	5	8	40
9:15 AM	1	13	3	2	0	12	1	13	45
9:30 AM	1	6	6	7	2	5	4	7	38
9:45 AM	1	9	5	4	0	0	5	7	31
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	13	78	37	47	14	70	30	94	383
APPROACH %'s :	14.29%	85.71%	44.05%	55.95%	16.67%	83.33%	24.19%	75.81%	
PEAK HR :	08:30 AM - 09:30 AM								TOTAL
PEAK HR VOL :	3	38	11	23	4	44	12	49	184
PEAK HR FACTOR :	0.750	0.679	0.688	0.719	0.250	0.917	0.600	0.645	0.807
	0.683		0.708		0.800		0.663		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
3:00 PM	5	6	9	5	6	6	7	6	50
3:15 PM	10	11	16	2	11	5	10	10	75
3:30 PM	17	17	20	9	11	11	23	10	118
3:45 PM	4	10	19	11	2	1	7	16	70
4:00 PM	3	5	11	4	7	6	5	7	48
4:15 PM	4	4	14	11	2	5	12	10	62
4:30 PM	4	1	10	8	6	7	9	7	52
4:45 PM	7	4	13	4	5	6	12	6	57
5:00 PM	13	6	10	10	4	5	6	21	75
5:15 PM	2	3	16	5	10	8	9	8	61
5:30 PM	11	10	20	4	18	18	11	13	105
5:45 PM	8	2	9	2	15	7	7	5	55
6:00 PM	10	6	9	3	6	9	8	13	64
6:15 PM	5	4	11	10	13	7	2	4	56
6:30 PM	4	5	12	3	3	4	4	6	41
6:45 PM	9	2	17	6	17	9	7	4	71
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	116	96	216	97	136	114	139	146	1060
APPROACH %'s :	54.72%	45.28%	69.01%	30.99%	54.40%	45.60%	48.77%	51.23%	
PEAK HR :	05:30 PM - 06:30 PM								TOTAL
PEAK HR VOL :	34	22	49	19	52	41	28	35	280
PEAK HR FACTOR :	0.773	0.550	0.613	0.475	0.722	0.569	0.636	0.673	0.667
	0.667		0.708		0.646		0.656		

Prepared by National Data & Surveying Services

N Canon Dr & S Santa Monica Blvd

Peak Hour Turning Movement Count

ID: Historical
City: Beverly Hills

Day: Tuesday
Date: 04/23/2019

	PEAK HOURS	COUNT PERIODS
AM	08:30 AM - 09:30 AM	07:00 AM - 10:00 AM
NOON	NONE	NONE
PM	05:30 PM - 06:30 PM	03:00 PM - 07:00 PM

N Canon Dr — SOUTHBOUND

	Right	Through	Left	U-Turn	Departing
AM	85	273	212	0	183
NOON	0	0	0	0	0
PM	33	193	190	0	502
Lanes	1	2	1	0	

S Santa Monica Blvd — EASTBOUND

	AM	NOON	PM	Lanes
Departing	1457	0	913	
U-Turn	0	0	0	0
Left	1	0	0	0
Through	481	0	1112	2
Right	60	0	105	0

S Santa Monica Blvd — WESTBOUND

	PM	NOON	AM	Lanes
Right	270	0	113	1
Through	832	0	1350	2
Left	71	0	76	1
U-Turn	0	0	0	0
Departing	1388	0	726	

N Canon Dr — NORTHBOUND

	Departing	U-Turn	Left	Through	Right
Lanes		0	1	1.5	0.5
PM	370	1	48	232	86
NOON	0	0	0	0	0
AM	409	0	22	69	33

CONTROL

Signalized

	AM	NOON	PM
TEV	2775	0	3173
PHF	0.99		0.97

Total Vehicles (AM)

Approach	Left	Through	Right
Southbound	212	273	85
Eastbound	1	481	60
Westbound	76	1350	113
Northbound	22	69	33

Bikes (AM)

Approach	Left	Through	Right
Southbound	0	0	2
Eastbound	0	3	0
Westbound	2	2	0
Northbound	0	0	0

Total Vehicles (Noon)

Approach	Left	Through	Right
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

Bikes (NOON)

Approach	Left	Through	Right
Southbound	N/A	N/A	N/A
Eastbound	N/A	N/A	N/A
Westbound	N/A	N/A	N/A
Northbound	N/A	N/A	N/A

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North leg	Eastbound	3	0	34
North leg	Westbound	38	0	22
West leg	Southbound	49	0	35
West leg	Northbound	12	0	28
East leg	Southbound	44	0	41
East leg	Northbound	4	0	52
South leg	Eastbound	11	0	49
South leg	Westbound	23	0	19
NW corner (diagonal)		0	0	0
NE corner (diagonal)		0	0	0
SW corner (diagonal)		0	0	0
SE corner (diagonal)		0	0	0

Total Vehicles (PM)

Approach	Left	Through	Right
Southbound	190	193	33
Eastbound	0	1112	105
Westbound	71	832	270
Northbound	48	232	86

Bikes (PM)

Approach	Left	Through	Right
Southbound	0	0	0
Eastbound	0	6	0
Westbound	0	1	0
Northbound	0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: N Beverly Dr & Brighton Way
City: Beverly Hills
Control: Signalized

Project ID: 17-5612-008
Date: 9/19/2017

Total

NS/EW Streets:	N Beverly Dr				N Beverly Dr				Brighton Way				Brighton Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	0	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	8	55	0	0	0	79	14	0	0	0	0	0	5	11	9	0	181
7:15 AM	4	89	0	0	0	96	15	0	0	0	0	0	4	16	12	0	236
7:30 AM	10	73	0	0	0	88	23	0	0	0	0	0	9	34	15	0	252
7:45 AM	26	120	0	0	0	105	42	0	0	0	0	0	11	70	11	0	385
8:00 AM	11	102	0	0	0	129	38	0	0	0	0	0	11	50	15	0	356
8:15 AM	25	118	0	0	0	122	29	0	0	0	0	0	14	55	10	0	373
8:30 AM	26	125	0	0	0	142	34	0	0	0	0	0	13	79	15	0	434
8:45 AM	23	99	0	0	0	120	40	0	0	0	0	0	17	88	16	0	403
9:00 AM	15	122	0	0	0	145	30	0	0	0	0	0	15	80	16	0	423
9:15 AM	28	143	0	0	0	147	31	0	0	0	0	0	15	83	14	0	461
9:30 AM	30	111	0	0	0	137	26	0	0	0	0	0	17	71	17	0	409
9:45 AM	20	112	0	0	0	144	33	0	0	0	0	0	20	56	20	0	405
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	226	1269	0	0	0	1454	355	0	0	0	0	0	151	693	170	0	4318
APPROACH %'s :	15.12%	84.88%	0.00%	0.00%	0.00%	80.38%	19.62%	0.00%					14.89%	68.34%	16.77%	0.00%	
PEAK HR :	08:30 AM - 09:30 AM																TOTAL
PEAK HR VOL :	92	489	0	0	0	554	135	0	0	0	0	0	60	330	61	0	1721
PEAK HR FACTOR :	0.821	0.855	0.000	0.000	0.000	0.942	0.844	0.000	0.000	0.000	0.000	0.000	0.882	0.938	0.953	0.000	0.933
	0.849				0.968								0.932				

	N Beverly Dr				N Beverly Dr				Brighton Way				Brighton Way				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	0	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	22	111	0	0	0	139	26	0	0	0	0	0	29	49	26	0	402
11:15 AM	18	123	0	0	0	142	29	1	0	0	0	0	21	30	30	0	394
11:30 AM	22	139	0	0	0	145	25	0	0	0	0	0	25	10	18	0	384
11:45 AM	15	120	0	0	0	113	42	0	0	0	0	0	25	35	23	0	373
12:00 PM	18	113	0	0	0	123	28	0	0	0	0	0	31	51	28	0	392
12:15 PM	20	116	0	0	0	117	38	0	0	0	0	0	25	47	39	0	402
12:30 PM	17	110	0	1	0	137	30	0	0	0	0	0	24	50	29	0	398
12:45 PM	19	109	0	0	0	130	19	0	0	0	0	0	22	37	30	0	366
1:00 PM	21	125	0	1	0	121	27	0	0	0	0	0	26	55	30	0	406
1:15 PM	25	131	0	0	0	121	32	0	0	0	0	0	24	43	24	0	400
1:30 PM	30	111	0	0	0	134	30	0	0	0	0	0	23	56	27	0	411
1:45 PM	30	126	0	0	0	117	24	0	0	0	0	0	40	49	28	0	414
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	257	1434	0	2	0	1539	350	1	0	0	0	0	315	512	332	0	4742
APPROACH %'s :	15.18%	84.70%	0.00%	0.12%	0.00%	81.43%	18.52%	0.05%					27.18%	44.18%	28.65%	0.00%	
PEAK HR :	01:00 PM - 02:00 PM																TOTAL
PEAK HR VOL :	106	493	0	1	0	493	113	0	0	0	0	0	113	203	109	0	1631
PEAK HR FACTOR :	0.883	0.941	0.000	0.250	0.000	0.920	0.883	0.000	0.000	0.000	0.000	0.000	0.706	0.906	0.908	0.000	0.985
	0.962				0.924								0.908				

	N Beverly Dr				N Beverly Dr				Brighton Way				Brighton Way				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	0	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	27	116	0	0	0	130	19	0	0	0	0	0	27	44	22	0	385
4:15 PM	27	85	0	0	0	133	19	0	0	0	0	0	20	46	27	0	357
4:30 PM	29	97	0	0	0	118	19	0	0	0	0	0	30	39	20	0	352
4:45 PM	26	92	0	0	0	132	15	0	0	0	0	0	30	32	17	0	344
5:00 PM	30	93	0	0	0	126	24	0	0	0	0	0	41	33	16	0	363
5:15 PM	25	111	0	0	0	123	12	0	0	0	0	0	23	38	11	0	343
5:30 PM	29	119	0	0	0	120	21	0	0	0	0	0	24	42	13	0	368
5:45 PM	31	117	0	0	0	133	28	0	0	0	0	0	18	37	21	0	385
6:00 PM	40	99	0	0	0	128	18	0	0	0	0	0	27	30	14	0	356
6:15 PM	30	93	0	0	0	121	20	0	0	0	0	0	27	49	15	0	355
6:30 PM	38	121	0	0	0	115	22	0	0	0	0	0	15	25	17	0	353
6:45 PM	37	113	0	0	0	117	18	0	0	0	0	0	18	34	20	0	357
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	369	1256	0	0	0	1496	235	0	0	0	0	0	300	449	213	0	4318
APPROACH %'s :	22.71%	77.29%	0.00%	0.00%	0.00%	86.42%	13.58%	0.00%					31.19%	46.67%	22.14%	0.00%	
PEAK HR :	05:30 PM - 06:30 PM																TOTAL
PEAK HR VOL :	130	428	0	0	0	502	87	0	0	0	0	0	96	158	63	0	1464
PEAK HR FACTOR :	0.813	0.899	0.000	0.000	0.000	0.944	0.777	0.000	0.000	0.000	0.000	0.000	0.889	0.806	0.750	0.000	0.951
	0.943				0.915								0.871				

Prepared by National Data & Surveying Services

N Beverly Dr & Brighton Way

Peak Hour Turning Movement Count

ID: 17-5612-008
City: Beverly Hills

Day: Tuesday
Date: 09/19/2017

PEAK HOURS	
AM	08:30 AM - 09:30 AM
NOON	01:00 PM - 02:00 PM
PM	05:30 PM - 06:30 PM

COUNT PERIODS	
AM	07:00 AM - 10:00 AM
NOON	11:00 AM - 02:00 PM
PM	04:00 PM - 07:00 PM

N Beverly Dr — SOUTHBOUND

	Right	Thru	Left	U-Turn	Departing
AM	135	554	0	0	550
NOON	113	493	0	0	602
PM	87	502	0	0	491
	0	2	0	0	

Brighton Way — EASTBOUND

	AM	NOON	PM	
Departing	557	422	375	
U-Turn	0	0	0	0
Left	0	0	0	0
Thru	0	0	0	0
Right	0	0	0	0

Brighton Way — WESTBOUND

		PM	NOON	AM
Right	0	63	109	61
Thru	2	158	203	330
Left	0	96	113	60
U-Turn	0	0	0	0
Departing		0	0	0

CONTROL

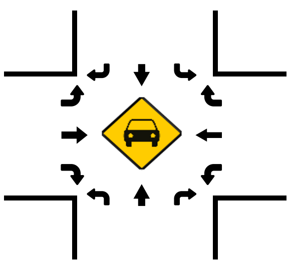
Signalized

	AM	NOON	PM
TEV	1721	1631	1464
PHF	0.93	0.98	0.95

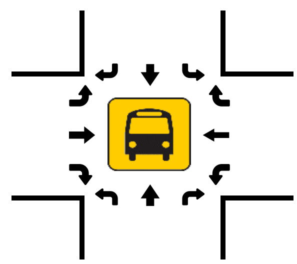
N Beverly Dr — NORTHBOUND

	Departing	U-Turn	Left	Thru	Right
		0	1	2	0
PM	598	0	130	428	0
NOON	607	1	106	493	0
AM	614	0	92	489	0

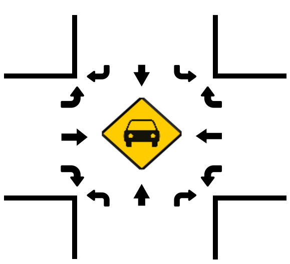
Total Vehicles (AM)



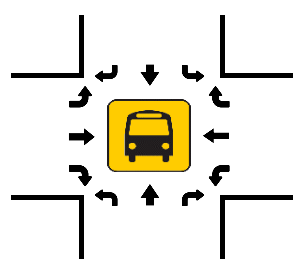
Total Vehicles (AM)



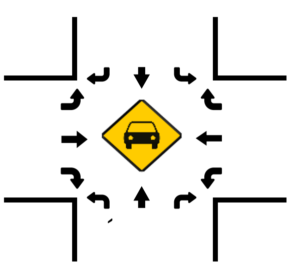
Total Vehicles (NOON)



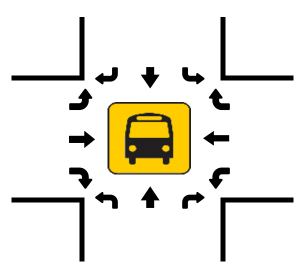
Total Vehicles (NOON)



Total Vehicles (PM)



Total Vehicles (PM)



Pedestrians (Crosswalks)

Crosswalk	AM	NOON	PM
North (west half)	0	0	0
North (east half)	0	0	0
West (north half)	0	0	0
West (south half)	0	0	0
East (north half)	0	0	0
East (south half)	0	0	0
South (west half)	0	0	0
South (east half)	0	0	0
NW diagonal	0	0	0
NE diagonal	0	0	0
SW diagonal	0	0	0
SE diagonal	0	0	0

National Data & Surveying Services

Intersection Turning Movement Count

Location: Rodeo Dr & Brighton Way
City: Beverly Hills
Control: Signalized

Project ID: 18-05534-010
Date: 8/15/2018

Total

NS/EW Streets:	Rodeo Dr				Rodeo Dr				Brighton Way				Brighton Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	0	0	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	6	0	0	0	20	21	0	0	0	0	0	0	22	9	0	78
7:15 AM	1	13	0	0	0	31	17	0	0	0	0	0	5	41	2	0	110
7:30 AM	1	13	0	0	0	36	36	0	0	0	0	0	0	35	4	0	125
7:45 AM	4	9	0	0	0	49	50	0	0	0	0	0	4	66	4	0	186
8:00 AM	3	16	0	0	0	46	27	1	0	0	0	0	7	46	7	0	153
8:15 AM	3	11	0	0	0	56	54	0	0	0	0	0	9	72	11	0	216
8:30 AM	3	19	0	0	0	59	42	1	0	0	0	0	13	75	4	0	216
8:45 AM	13	22	0	0	0	73	50	1	0	0	0	0	13	134	16	0	322
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	28	109	0	0	0	370	297	3	0	0	0	0	51	491	57	0	1406
APPROACH %'s :	20.44%	79.56%	0.00%	0.00%	0.00%	55.22%	44.33%	0.45%					8.51%	81.97%	9.52%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	22	68	0	0	0	234	173	3	0	0	0	0	42	327	38	0	907
PEAK HR FACTOR :	0.423	0.773	0.000	0.000	0.000	0.801	0.801	0.750	0.000	0.000	0.000	0.000	0.808	0.610	0.594	0.000	0.704
	0.643				0.827								0.624				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	1	2	0	0	0	2	0	0	0	0	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	16	67	0	0	0	87	31	0	0	0	0	0	13	66	28	0	308
4:15 PM	18	56	0	0	0	100	35	0	0	0	0	0	19	61	21	0	310
4:30 PM	13	69	0	1	0	79	34	1	0	0	0	0	14	45	30	0	286
4:45 PM	15	75	0	0	0	75	30	1	0	0	0	0	12	44	26	0	278
5:00 PM	13	67	0	0	0	90	34	0	0	0	0	0	17	52	31	0	304
5:15 PM	11	59	0	0	0	105	38	0	0	0	0	0	17	50	41	0	321
5:30 PM	13	92	0	0	0	78	28	0	0	0	0	0	25	46	31	0	313
5:45 PM	17	63	0	0	0	93	17	0	0	0	0	0	16	43	31	0	280
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	116	548	0	1	0	707	247	2	0	0	0	0	133	407	239	0	2400
APPROACH %'s :	17.44%	82.41%	0.00%	0.15%	0.00%	73.95%	25.84%	0.21%					17.07%	52.25%	30.68%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	54	281	0	0	0	366	117	0	0	0	0	0	75	191	134	0	1218
PEAK HR FACTOR :	0.794	0.764	0.000	0.000	0.000	0.871	0.770	0.000	0.000	0.000	0.000	0.000	0.750	0.918	0.817	0.000	0.949
	0.798				0.844								0.926				

Prepared by National Data & Surveying Services

Rodeo Dr & Brighton Way

Peak Hour Turning Movement Count

ID: 18-05534-010
City: Beverly Hills

Day: Wednesday
Date: 08/15/2018

PEAK HOURS		COUNT PERIODS
AM	08:00 AM - 09:00 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	05:00 PM - 06:00 PM	04:00 PM - 06:00 PM

Rodeo Dr — SOUTHBOUND

	Right	Thru	Left	U-Turn	Departing
AM	173	234	0	3	109
NOON	0	0	0	0	0
PM	117	366	0	0	415
	0	2	0	0	

Brighton Way — EASTBOUND

	AM	NOON	PM	
Departing	522	0	362	
U-Turn	0	0	0	0
Left	0	0	0	0
Thru	0	0	0	0
Right	0	0	0	0

Brighton Way — WESTBOUND

		PM	NOON	AM
Right	0	134	0	38
Thru	2	191	0	327
Left	0	75	0	42
U-Turn	0	0	0	0
Departing		0	0	0

CONTROL

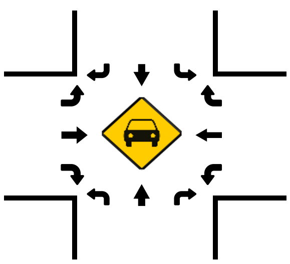
Signalized

	AM	NOON	PM
TEV	907	0	1218
PHF	0.70		0.95

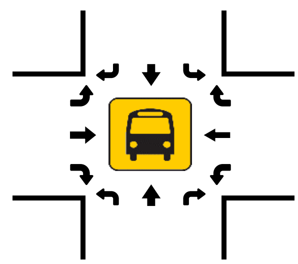
Rodeo Dr — NORTHBOUND

	Departing	U-Turn	Left	Thru	Right
		0	1	2	0
PM	441	0	54	281	0
NOON	0	0	0	0	0
AM	276	0	22	68	0

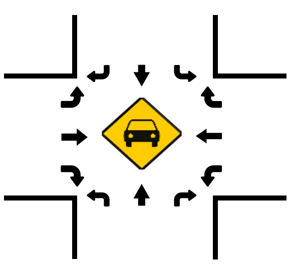
Total Vehicles (AM)



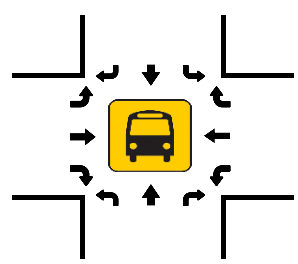
Total Vehicles (AM)



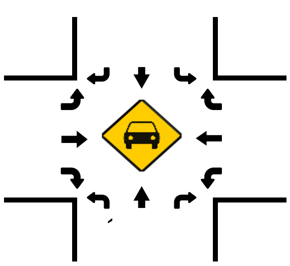
Total Vehicles (NOON)



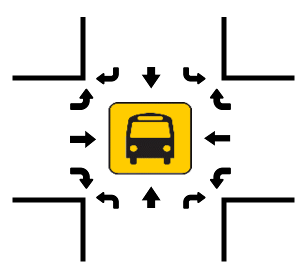
Total Vehicles (NOON)



Total Vehicles (PM)



Total Vehicles (PM)

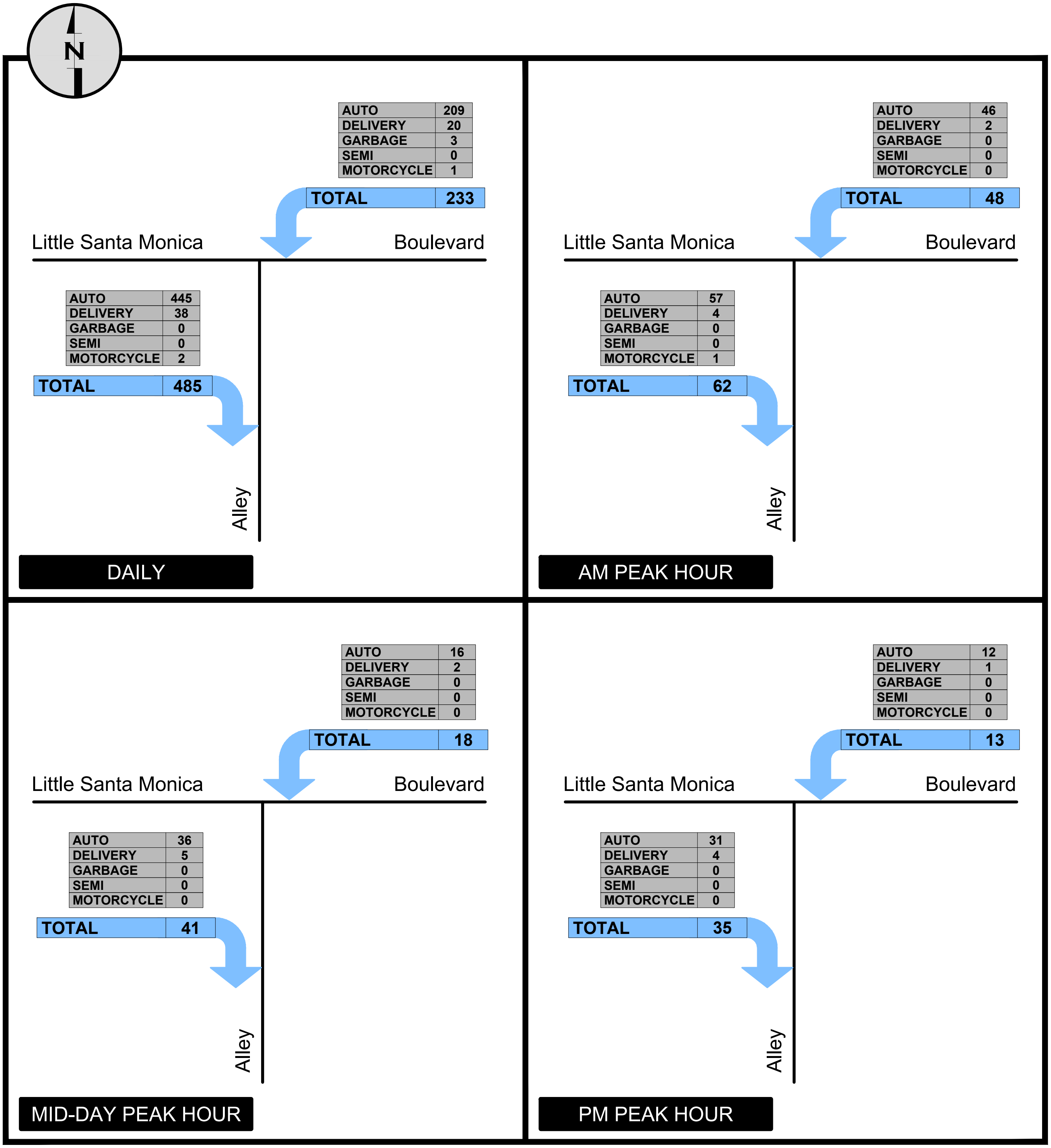


Pedestrians (Crosswalks)

Crosswalk	AM	NOON	PM
North leg	0	0	0
North leg	0	0	0
West leg	0	0	0
West leg	0	0	0
East leg	0	0	0
East leg	0	0	0
South leg	0	0	0
South leg	0	0	0
Diagonal NW	0	0	0
Diagonal NE	0	0	0
Diagonal SW	0	0	0
Diagonal SE	0	0	0

CHEVAL BLANC HOTEL PROJECT
SUMMARY OF CURRENT WEEKDAY ALLEY TRAFFIC ACTIVITY
ONE-WAY SOUTHBOUND ALLEY BETWEEN SANTA MONICA BOULEVARD (S) AND BRIGHTON WAY

DAY/DATE	EASTBOUND RIGHT-TURN ENTRY						WESTBOUND LEFT-TURN ENTRY						TOTAL ALLEY VOLUMES					
	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
Tuesday, April 23, 2019																		
Daily	483	30	1	0	2	516	208	13	3	0	2	226	691	43	4	0	4	742
AM Peak Hour (8:45 - 9:45 AM)	61	1	0	0	0	62	45	2	2	0	0	49	106	3	2	0	0	111
Mid-Day Peak Hour (12:00 N - 1:00 PM)	37	4	0	0	0	41	17	0	0	0	0	17	54	4	0	0	0	58
PM Peak Hour (3:30 - 4:30 PM)	36	8	0	0	1	45	10	1	0	0	0	11	46	9	0	0	1	56
Monday, May 13, 2019																		
Daily	369	39	0	0	1	409	164	23	3	0	0	190	533	62	3	0	1	599
AM Peak Hour (8:45 - 9:45 AM)	57	3	0	0	1	61	41	4	0	0	0	45	98	7	0	0	1	106
Mid-Day Peak Hour (12:00 N - 1:00 PM)	25	8	0	0	0	33	9	3	0	0	0	12	34	11	0	0	0	45
PM Peak Hour (3:30 - 4:30 PM)	24	4	0	0	0	28	8	1	0	0	0	9	32	5	0	0	0	37
Tuesday, May 14, 2019																		
Daily	440	44	0	0	4	488	226	19	2	0	1	248	666	63	2	0	5	736
AM Peak Hour (8:45 - 9:45 AM)	65	5	0	0	2	72	50	0	0	0	1	51	115	5	0	0	3	123
Mid-Day Peak Hour (1:00 - 2:00 PM)	35	7	0	0	0	42	17	1	0	0	0	18	52	8	0	0	0	60
PM Peak Hour (4:00 - 5:00 PM)	30	0	0	0	0	30	16	0	0	0	0	16	46	0	0	0	0	46
Monday, May 20, 2019																		
Daily	380	35	0	0	2	417	187	16	3	0	2	208	567	51	3	0	4	625
AM Peak Hour (8:45 - 9:45 AM)	53	7	0	0	1	61	36	1	0	0	0	37	89	8	0	0	1	98
Mid-Day Peak Hour (12:00 N - 1:00 PM)	29	5	0	0	0	34	14	3	0	0	0	17	43	8	0	0	0	51
PM Peak Hour (4:15 - 5:15 PM)	28	1	0	0	0	29	8	1	0	0	0	9	36	2	0	0	0	38
Tuesday, May 21, 2019																		
Daily	505	40	1	0	0	546	225	27	3	0	0	255	730	67	4	0	0	801
AM Peak Hour (8:45 - 9:45 AM)	51	4	1	0	0	56	53	3	0	0	0	56	104	7	1	0	0	112
Mid-Day Peak Hour (12:45 - 1:45 PM)	27	5	0	0	0	32	18	3	0	0	0	21	45	8	0	0	0	53
PM Peak Hour (3:00 - 4:00 PM)	30	4	0	0	0	34	12	2	0	0	0	14	42	6	0	0	0	48
Wednesday, May 22, 2019																		
Daily	435	49	1	1	1	487	211	23	2	0	0	236	646	72	3	1	1	723
AM Peak Hour (8:45 - 9:45 AM)	53	5	0	0	0	58	50	1	0	0	0	51	103	6	0	0	0	109
Mid-Day Peak Hour (1:00 - 2:00 PM)	36	2	0	0	1	39	18	2	0	0	0	20	54	4	0	0	1	59
PM Peak Hour (3:15 - 4:15 PM)	23	5	0	0	0	28	9	1	0	0	0	10	32	6	0	0	0	38
Thursday, May 23, 2019																		
Daily	485	38	0	0	0	523	230	24	2	0	0	256	715	62	2	0	0	779
AM Peak Hour (8:30 - 9:30 AM)	61	3	0	0	0	64	39	1	0	0	0	40	100	4	0	0	0	104
Mid-Day Peak Hour (12:45 - 1:45 PM)	46	3	0	0	0	49	20	1	0	0	0	21	66	4	0	0	0	70
PM Peak Hour (3:00 - 4:00 PM)	35	3	0	0	0	38	11	3	0	0	0	14	46	6	0	0	0	52
Friday, May 24, 2019																		
Daily	462	30	0	0	2	494	219	15	2	0	3	239	681	45	2	0	5	733
AM Peak Hour (8:45 - 9:45 AM)	56	4	0	0	1	61	50	1	0	0	1	52	106	5	0	0	2	113
Mid-Day Peak Hour (12:15 - 1:15 PM)	53	4	0	0	0	57	18	0	0	0	0	18	71	4	0	0	0	75
PM Peak Hour (3:00 - 4:00 PM)	39	3	0	0	0	42	20	1	0	0	0	21	59	4	0	0	0	63
Weekday Average (8 Days)																		
Daily	445	38	0	0	2	485	209	20	3	0	1	233	654	58	3	0	3	718
AM Peak Hour	57	4	0	0	1	62	46	2	0	0	0	48	103	6	0	0	1	110
Mid-Day Peak Hour	36	5	0	0	0	41	16	2	0	0	0	18	52	7	0	0	0	59
PM Peak Hour	31	4	0	0	0	35	12	1	0	0	0	13	43	5	0	0	0	48
Maximums (by category)																		
Daily	505	49	1	1	4		230	27	3	0	3		730	72	4	1	5	
AM Peak Hour	65	7	1	0	2		53	4	2	0	1		115	8	2	0	3	
Mid-Day Peak Hour	53	8	0	0	1		20	3	0	0	0		71	11	0	0	1	
PM Peak Hour	39	8	0	0	1		20	3	0	0	0		59	9	0	0	1	



4/24/2020

FIGURE 3(a)

EXISTING ALLEY TRAFFIC VOLUMES
WEEKDAY (8-DAY AVERAGE)

HIRSCH GREEN
Hirsch/Green Transportation Consulting, Inc.

Appendix B:
LOS Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	1317	26	80	1484	29	0	75	28	28	300	45
Future Volume (veh/h)	23	1317	26	80	1484	29	0	75	28	28	300	45
Initial Q (Qb), veh	0	10	0	0	15	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	0	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	26	1463	28	89	1649	31	0	83	8	31	333	26
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, %	3	3	3	3	3	3	0	3	3	3	3	3
Cap, veh/h	117	1916	35	72	1921	32	0	483	46	253	525	230
Arrive On Green	0.73	0.73	0.73	0.73	0.73	0.73	0.00	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	240	2606	50	288	2608	49	0	2987	276	1282	3154	1379
Grp Volume(v), veh/h	26	728	763	89	820	860	0	44	47	31	333	26
Grp Sat Flow(s),veh/h/ln	240	1299	1356	288	1299	1358	0	1577	1602	1282	1577	1379
Q Serve(g_s), s	8.8	33.9	34.1	27.1	45.4	45.9	0.0	2.4	2.5	2.1	9.8	1.6
Cycle Q Clear(g_c), s	54.7	33.9	34.1	61.1	45.4	45.9	0.0	2.4	2.5	4.6	9.8	1.6
Prop In Lane	1.00		0.04	1.00		0.04	0.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	117	954	997	72	954	998	0	263	267	253	525	230
V/C Ratio(X)	0.22	0.76	0.76	1.24	0.86	0.86	0.00	0.17	0.17	0.12	0.63	0.11
Avail Cap(c_a), veh/h	138	954	996	186	954	997	0	420	426	381	839	367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.41	0.41	0.41	0.00	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	8.5	8.5	50.0	10.4	10.4	0.0	35.7	35.8	37.8	38.8	35.4
Incr Delay (d2), s/veh	4.3	5.8	5.6	145.4	4.4	4.3	0.0	0.3	0.3	0.2	1.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.8	0.8	0.0	3.2	2.9	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	9.6	9.9	4.7	12.8	13.3	0.0	1.0	1.0	0.7	3.9	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.4	15.1	14.8	195.4	18.0	17.6	0.0	36.0	36.1	38.0	40.1	35.6
LnGrp LOS	D	B	B	F	B	B	A	D	D	D	D	D
Approach Vol, veh/h		1517			1769			91			390	
Approach Delay, s/veh		15.4			26.7			36.1			39.6	
Approach LOS		B			C			D			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		78.9		21.1		78.9		21.1				
Change Period (Y+Rc), s		5.4		4.5		5.4		4.5				
Max Green Setting (Gmax), s		63.5		26.6		63.5		26.6				
Max Q Clear Time (g_c+I1), s		56.7		11.8		63.1		4.5				
Green Ext Time (p_c), s		6.1		2.1		0.4		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			23.7									
HCM 6th LOS			C									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	1491	25	91	1270	36	18	339	143	21	472	57
Future Volume (veh/h)	37	1491	25	91	1270	36	18	339	143	21	472	57
Initial Q (Qb), veh	0	10	0	0	15	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	0.99		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	41	1657	27	101	1411	38	20	377	139	23	524	53
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	109	1734	20	72	1708	41	123	523	190	154	673	68
Arrive On Green	0.66	0.66	0.66	0.66	0.66	0.66	0.47	0.47	0.47	0.23	0.23	0.23
Sat Flow, veh/h	300	2615	43	239	2582	69	825	2244	814	872	2887	291
Grp Volume(v), veh/h	41	822	862	101	709	740	20	263	253	23	286	291
Grp Sat Flow(s),veh/h/ln	300	1299	1359	239	1299	1352	825	1577	1481	872	1577	1601
Q Serve(g_s), s	11.9	58.7	59.3	6.6	41.0	41.2	2.2	13.4	13.9	2.5	17.0	17.1
Cycle Q Clear(g_c), s	53.1	58.7	59.3	65.9	41.0	41.2	19.3	13.4	13.9	16.3	17.0	17.1
Prop In Lane	1.00		0.03	1.00		0.05	1.00		0.55	1.00		0.18
Lane Grp Cap(c), veh/h	109	856	897	72	856	892	123	368	345	154	368	373
V/C Ratio(X)	0.38	0.96	0.96	1.40	0.83	0.83	0.16	0.72	0.73	0.15	0.78	0.78
Avail Cap(c_a), veh/h	146	856	895	88	856	891	151	420	394	183	420	426
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.34	0.34	0.34	1.00	1.00	1.00	0.83	0.83	0.83	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	16.5	16.5	50.0	13.7	13.6	33.5	24.0	24.2	42.1	35.9	36.0
Incr Delay (d2), s/veh	3.4	10.7	10.6	245.5	9.1	8.8	0.5	4.1	5.0	0.4	7.9	8.1
Initial Q Delay(d3),s/veh	0.0	6.1	5.8	0.0	3.2	3.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	19.3	20.1	6.7	14.1	14.6	0.4	4.3	4.2	0.5	7.3	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.9	33.4	32.9	295.5	26.0	25.4	34.0	28.2	29.2	42.5	43.8	44.0
LnGrp LOS	D	C	C	F	C	C	C	C	C	D	D	D
Approach Vol, veh/h		1725			1550			536			600	
Approach Delay, s/veh		33.4			43.3			28.9			43.9	
Approach LOS		C			D			C			D	

Timer - Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		71.3		28.7		71.3		28.7
Change Period (Y+Rc), s		5.4		5.4		5.4		5.4
Max Green Setting (Gmax), s		62.6		26.6		62.6		26.6
Max Q Clear Time (g_c+I1), s		61.3		19.1		67.9		21.3
Green Ext Time (p_c), s		1.3		2.3		0.0		1.6

Intersection Summary	
HCM 6th Ctrl Delay	37.8
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	637	41	127	1347	21	10	82	29	30	327	49
Future Volume (vph)	0	637	41	127	1347	21	10	82	29	30	327	49
Ideal Flow (vphpl)	1700	1700	1700	1400	1400	1400	1700	1700	1700	1700	1700	1700
Total Lost time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	0.99		1.00	0.99	
Flpb, ped/bikes		1.00			1.00		0.98	1.00		0.96	1.00	
Frt		0.99			1.00		1.00	0.96		1.00	0.98	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3098			2559		1543	2760		1511	3057	
Flt Permitted		1.00			0.74		0.39	1.00		0.68	1.00	
Satd. Flow (perm)		3098			1903		640	2760		1078	3057	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	671	43	134	1418	22	11	86	31	32	344	52
RTOR Reduction (vph)	0	4	0	0	1	0	0	24	0	0	12	0
Lane Group Flow (vph)	0	710	0	0	1573	0	11	93	0	32	384	0
Confl. Peds. (#/hr)	100		29	29		100	24		33	33		24
Confl. Bikes (#/hr)			3			2			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)								8	8			
Turn Type		NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases				6			8			4		
Actuated Green, G (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Effective Green, g (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Actuated g/C Ratio		0.60			0.67		0.23	0.23		0.23	0.23	
Clearance Time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		5.0			5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1843			1308		148	640		250	709	
v/s Ratio Prot		0.23			c0.05			0.03			c0.13	
v/s Ratio Perm					c0.75		0.02			0.03		
v/c Ratio		0.38			1.20		0.07	0.15		0.13	0.54	
Uniform Delay, d1		10.6			16.4		30.0	30.5		30.4	33.7	
Progression Factor		1.00			0.52		1.00	1.00		0.43	0.39	
Incremental Delay, d2		0.6			95.5		0.2	0.1		0.2	0.7	
Delay (s)		11.2			104.0		30.2	30.6		13.2	13.9	
Level of Service		B			F		C	C		B	B	
Approach Delay (s)		11.2			104.0			30.6			13.9	
Approach LOS		B			F			C			B	

Intersection Summary			
HCM 2000 Control Delay	63.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	109.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	549	73	129	1371	21	48	379	70	0	524	75
Future Volume (veh/h)	74	549	73	129	1371	21	48	379	70	0	524	75
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	0.99		0.96	0.98		0.91	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1660	1660	1660	1367	1367	1367	1660	1660	1660	0	1660	1660
Adj Flow Rate, veh/h	78	578	66	136	1443	21	51	399	18	0	552	68
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, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	72	2203	246	72	2030	28	131	817	333	0	724	89
Arrive On Green	0.77	0.77	0.77	1.00	1.00	1.00	0.26	0.26	0.26	0.00	0.26	0.26
Sat Flow, veh/h	358	2838	323	636	2619	38	785	3154	1285	0	2878	343
Grp Volume(v), veh/h	78	320	324	136	715	749	51	399	18	0	310	310
Grp Sat Flow(s),veh/h/ln	358	1577	1584	636	1299	1358	785	1577	1285	0	1577	1560
Q Serve(g_s), s	6.4	5.8	5.8	2.4	0.0	0.0	6.4	10.7	1.1	0.0	18.2	18.3
Cycle Q Clear(g_c), s	6.8	5.8	5.8	8.8	0.0	0.0	24.8	10.7	1.1	0.0	18.2	18.3
Prop In Lane	1.00		0.20	1.00		0.03	1.00		1.00	0.00		0.22
Lane Grp Cap(c), veh/h	72	1221	1228	72	1006	1052	131	817	333	0	408	404
V/C Ratio(X)	1.08	0.26	0.26	1.89	0.71	0.71	0.39	0.49	0.05	0.00	0.76	0.77
Avail Cap(c_a), veh/h	348	1221	1227	524	1006	1052	131	817	333	0	408	404
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.51	0.51	0.51	0.92	0.92	0.92	0.00	0.35	0.35
Uniform Delay (d), s/veh	50.0	3.4	3.4	38.7	0.0	0.0	45.7	31.4	27.8	0.0	34.2	34.2
Incr Delay (d2), s/veh	129.8	0.5	0.5	423.9	2.2	2.1	1.7	0.4	0.1	0.0	3.0	3.1
Initial Q Delay(d3),s/veh	0.0	0.2	0.2	0.0	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	2.1	2.1	10.2	0.8	0.8	1.3	4.1	0.3	0.0	7.3	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	179.8	4.1	4.1	462.6	2.8	2.7	47.4	31.8	27.9	0.0	37.1	37.4
LnGrp LOS	F	A	A	F	A	A	D	C	C	A	D	D
Approach Vol, veh/h		722			1600			468			620	
Approach Delay, s/veh		23.0			41.8			33.4			37.3	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	82.9	31.0	82.9	31.0
Change Period (Y+Rc), s	5.1	* 5.1	5.1	5.1
Max Green Setting (Gmax), s	64.3	* 26	64.3	25.5
Max Q Clear Time (g_c+I1), s	8.8	26.8	10.8	20.3
Green Ext Time (p_c), s	13.9	0.0	37.0	1.8

Intersection Summary	
HCM 6th Ctrl Delay	35.9
HCM 6th LOS	D

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	481	60	76	1350	113	22	69	33	212	273	85
Future Volume (veh/h)	0	481	60	76	1350	113	22	69	33	212	273	85
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	0.99		0.97	0.95		0.92	0.94		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1660	1660	1367	1367	1367	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	0	486	53	77	1364	89	22	70	33	214	276	67
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	0	1662	175	72	1505	649	291	468	200	415	1018	428
Arrive On Green	0.00	0.77	0.77	0.58	0.58	0.58	0.22	0.22	0.22	0.07	0.32	0.32
Sat Flow, veh/h	0	2943	310	703	2598	1120	977	2089	894	1581	3154	1327
Grp Volume(v), veh/h	0	267	272	77	1364	89	22	51	52	214	276	67
Grp Sat Flow(s),veh/h/ln	0	1577	1593	703	1299	1120	977	1577	1405	1581	1577	1327
Q Serve(g_s), s	0.0	5.0	5.1	5.8	46.5	3.6	1.8	2.6	3.0	6.9	6.5	3.6
Cycle Q Clear(g_c), s	0.0	5.0	5.1	10.9	46.5	3.6	1.8	2.6	3.0	6.9	6.5	3.6
Prop In Lane	0.00		0.19	1.00		1.00	1.00		0.64	1.00		1.00
Lane Grp Cap(c), veh/h	0	913	924	72	1505	649	291	353	315	415	1018	428
V/C Ratio(X)	0.00	0.29	0.29	1.07	0.91	0.14	0.08	0.14	0.16	0.52	0.27	0.16
Avail Cap(c_a), veh/h	0	913	923	444	1505	649	346	442	394	415	1196	503
HCM Platoon Ratio	1.00	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.96	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	5.6	5.6	50.0	19.3	9.6	30.8	31.1	31.3	29.1	25.1	24.1
Incr Delay (d2), s/veh	0.0	0.8	0.8	126.4	9.5	0.4	0.1	0.2	0.2	0.5	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.3	0.3	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.0	2.1	4.3	16.6	0.9	0.4	1.0	1.0	1.5	2.5	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.7	6.7	176.4	32.2	10.1	30.9	31.3	31.5	29.6	25.3	24.3
LnGrp LOS	A	A	A	F	C	B	C	C	C	C	C	C
Approach Vol, veh/h		539			1530			125			557	
Approach Delay, s/veh		6.7			38.2			31.3			26.8	
Approach LOS		A			D			C			C	

Timer - Assigned Phs		2		4		6	7	8
Phs Duration (G+Y+Rc), s		63.0		37.0		63.0	9.9	27.1
Change Period (Y+Rc), s		5.1		* 4.7		5.1	3.0	* 4.7
Max Green Setting (Gmax), s		52.3		* 38		52.3	6.9	* 28
Max Q Clear Time (g_c+I1), s		7.1		8.5		48.5	8.9	5.0
Green Ext Time (p_c), s		7.9		2.2		3.5	0.0	0.6

Intersection Summary			
HCM 6th Ctrl Delay			29.4
HCM 6th LOS			C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	61	333	62	93	494	0	0	560	136
Future Volume (veh/h)	0	0	0	61	333	62	93	494	0	0	560	136
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.91	0.99		1.00	1.00		0.96
Parking Bus, Adj				0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	0.81
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1660	1660	1660	1660	1660	0	0	1660	1660
Adj Flow Rate, veh/h				66	358	45	100	531	0	0	602	113
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				114	646	85	409	1739	0	0	1311	245
Arrive On Green				0.31	0.31	0.31	0.55	0.55	0.00	0.00	0.55	0.55
Sat Flow, veh/h				366	2070	271	726	3237	0	0	2460	445
Grp Volume(v), veh/h				249	0	220	100	531	0	0	399	316
Grp Sat Flow(s),veh/h/ln				1385	0	1324	726	1577	0	0	1577	1245
Q Serve(g_s), s				9.1	0.0	8.2	5.8	5.4	0.0	0.0	9.1	9.2
Cycle Q Clear(g_c), s				9.1	0.0	8.2	14.9	5.4	0.0	0.0	9.1	9.2
Prop In Lane				0.26		0.20	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				432	0	413	409	1739	0	0	870	686
V/C Ratio(X)				0.58	0.00	0.53	0.24	0.31	0.00	0.00	0.46	0.46
Avail Cap(c_a), veh/h				595	0	569	409	1739	0	0	870	686
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.55	0.55
Uniform Delay (d), s/veh				17.3	0.0	17.0	12.6	7.3	0.0	0.0	8.1	8.1
Incr Delay (d2), s/veh				1.2	0.0	1.1	1.4	0.5	0.0	0.0	1.0	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.8	0.0	2.4	1.0	1.7	0.0	0.0	2.8	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				18.6	0.0	18.1	14.0	7.7	0.0	0.0	9.0	9.3
LnGrp LOS				B	A	B	B	A	A	A	A	A
Approach Vol, veh/h					469			631			715	
Approach Delay, s/veh					18.3			8.7			9.2	
Approach LOS					B			A			A	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		37.3				37.3		22.7				
Change Period (Y+Rc), s		* 4.2				* 4.2		4.0				
Max Green Setting (Gmax), s		* 26				* 26		25.8				
Max Q Clear Time (g_c+I1), s		16.9				11.2		11.1				
Green Ext Time (p_c), s		4.4				6.9		2.6				

Intersection Summary		
HCM 6th Ctrl Delay		11.4
HCM 6th LOS		B

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	42	329	38	22	68	0	0	235	174
Future Volume (vph)	0	0	0	42	329	38	22	68	0	0	235	174
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)					3.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			0.99	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.99		1.00	1.00			0.94	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					2873		1568	2885			2693	
Flt Permitted					0.99		0.25	1.00			1.00	
Satd. Flow (perm)					2873		413	2885			2693	
Peak-hour factor, PHF	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Adj. Flow (vph)	0	0	0	60	470	54	31	97	0	0	336	249
RTOR Reduction (vph)	0	0	0	0	11	0	0	0	0	0	191	0
Lane Group Flow (vph)	0	0	0	0	573	0	31	97	0	0	394	0
Confl. Bikes (#/hr)			1			1			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)				6	6	4		12			11	11
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					6			8			4	
Permitted Phases				6			8					
Actuated Green, G (s)					23.0		16.0	16.0			16.0	
Effective Green, g (s)					23.0		16.0	16.0			16.0	
Actuated g/C Ratio					0.33		0.23	0.23			0.23	
Clearance Time (s)					3.0		4.0	4.0			4.0	
Vehicle Extension (s)					2.0		2.0	2.0			2.0	
Lane Grp Cap (vph)					943		94	659			615	
v/s Ratio Prot								0.03			c0.15	
v/s Ratio Perm					0.20		0.08					
v/c Ratio					0.61		0.33	0.15			0.64	
Uniform Delay, d1					19.7		22.5	21.6			24.4	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					2.9		9.1	0.5			5.0	
Delay (s)					22.6		31.7	22.0			29.4	
Level of Service					C		C	C			C	
Approach Delay (s)		0.0			22.6			24.4			29.4	
Approach LOS		A			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	25.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	40.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	299	0	0	0	0	0	0	110
Future Vol, veh/h	0	0	0	0	299	0	0	0	0	0	0	110
Conflicting Peds, #/hr	0	0	0	79	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	365	0	0	0	0	0	0	134

Major/Minor	Major2			Minor2		
Conflicting Flow All	79	0	0	-	444	183
Stage 1	-	-	-	-	365	-
Stage 2	-	-	-	-	79	-
Critical Hdwy	4.16	-	-	-	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.23	-	-	-	4.03	3.33
Pot Cap-1 Maneuver	1510	-	0	0	505	825
Stage 1	-	-	0	0	619	-
Stage 2	-	-	0	0	-	-
Platoon blocked, %		-				
Mov Cap-1 Maneuver	1510	-	-	-	0	825
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

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

Minor Lane/Major Mvmt	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	1510	-	-	825
HCM Lane V/C Ratio	-	-	-	0.163
HCM Control Delay (s)	0	-	0	10.2
HCM Lane LOS	A	-	A	B
HCM 95th %tile Q(veh)	0	-	-	0.6

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	610	62	48	1499	0	0
Future Vol, veh/h	610	62	48	1499	0	0
Conflicting Peds, #/hr	0	31	31	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	649	66	51	1595	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	746	0	-	389
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.16	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.23	-	-	3.33
Pot Cap-1 Maneuver	-	-	851	-	0	607
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	826	-	-	589
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	826	-
HCM Lane V/C Ratio	-	-	-	0.062	-
HCM Control Delay (s)	0	-	-	9.6	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0.2	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	1467	42	73	1350	48	0	228	54	30	161	42
Future Volume (veh/h)	35	1467	42	73	1350	48	0	228	54	30	161	42
Initial Q (Qb), veh	0	15	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.97	0.98		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	0	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	39	1630	45	81	1500	50	0	253	39	33	179	17
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, %	3	3	3	3	3	3	0	3	3	3	3	3
Cap, veh/h	102	1754	35	72	1732	52	0	623	95	229	719	286
Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.67	0.00	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	272	2580	71	241	2563	85	0	2817	415	1062	3154	1254
Grp Volume(v), veh/h	39	818	857	81	759	791	0	144	148	33	179	17
Grp Sat Flow(s),veh/h/ln	272	1299	1352	241	1299	1349	0	1577	1572	1062	1577	1254
Q Serve(g_s), s	13.2	55.6	56.5	10.8	45.9	46.4	0.0	7.8	8.0	2.7	4.6	1.1
Cycle Q Clear(g_c), s	59.6	55.6	56.5	67.3	45.9	46.4	0.0	7.8	8.0	10.7	4.6	1.1
Prop In Lane	1.00		0.05	1.00		0.06	0.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	102	874	913	72	874	909	0	359	358	229	719	286
V/C Ratio(X)	0.38	0.94	0.94	1.12	0.87	0.87	0.00	0.40	0.41	0.14	0.25	0.06
Avail Cap(c_a), veh/h	129	874	910	98	874	908	0	420	418	269	839	334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.32	0.32	0.32	0.00	0.84	0.84	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.9	15.5	15.5	50.0	13.4	13.5	0.0	32.8	32.9	37.5	31.6	30.2
Incr Delay (d2), s/veh	10.6	18.4	18.1	97.7	4.0	4.0	0.0	0.6	0.6	0.3	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	8.3	7.9	0.0	1.8	1.7	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	21.1	22.0	3.7	13.2	13.7	0.0	3.0	3.1	0.7	1.8	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.5	42.1	41.5	147.7	19.3	19.1	0.0	33.4	33.5	37.8	31.8	30.3
LnGrp LOS	D	D	D	F	B	B	A	C	C	D	C	C
Approach Vol, veh/h		1714			1631			292			229	
Approach Delay, s/veh		42.0			25.6			33.5			32.5	
Approach LOS		D			C			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		72.7		27.3		72.7		27.3				
Change Period (Y+Rc), s		5.4		4.5		5.4		4.5				
Max Green Setting (Gmax), s		63.5		26.6		63.5		26.6				
Max Q Clear Time (g_c+I1), s		61.6		12.7		69.3		10.0				
Green Ext Time (p_c), s		1.8		1.1		0.0		1.6				

Intersection Summary			
HCM 6th Ctrl Delay			33.9
HCM 6th LOS			C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	1315	38	78	1327	32	67	422	159	36	351	63
Future Volume (veh/h)	45	1315	38	78	1327	32	67	422	159	36	351	63
Initial Q (Qb), veh	0	15	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	0.99		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	50	1461	40	87	1474	34	74	469	145	40	390	54
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	103	1674	38	72	1679	34	185	582	178	133	684	94
Arrive On Green	0.65	0.65	0.65	0.65	0.65	0.65	0.49	0.49	0.49	0.25	0.25	0.25
Sat Flow, veh/h	284	2580	71	286	2594	60	927	2358	723	795	2774	381
Grp Volume(v), veh/h	50	734	767	87	737	771	74	312	302	40	220	224
Grp Sat Flow(s),veh/h/ln	284	1299	1352	286	1299	1355	927	1577	1503	795	1577	1578
Q Serve(g_s), s	17.6	46.1	46.5	18.1	46.5	46.8	7.2	16.6	17.0	4.9	12.2	12.4
Cycle Q Clear(g_c), s	64.4	46.1	46.5	64.5	46.5	46.8	19.6	16.6	17.0	21.9	12.2	12.4
Prop In Lane	1.00		0.05	1.00		0.04	1.00		0.48	1.00		0.24
Lane Grp Cap(c), veh/h	103	838	874	72	838	875	185	389	371	133	389	389
V/C Ratio(X)	0.49	0.88	0.88	1.21	0.88	0.88	0.40	0.80	0.81	0.30	0.57	0.57
Avail Cap(c_a), veh/h	122	838	872	124	838	874	203	420	400	149	420	420
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.66	0.66	0.66	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	15.4	15.4	50.0	15.2	15.2	29.6	23.3	23.4	44.9	33.0	33.1
Incr Delay (d2), s/veh	1.5	1.3	1.3	172.5	12.7	12.4	0.9	6.9	7.8	1.2	1.5	1.7
Initial Q Delay(d3),s/veh	0.0	4.7	4.3	0.0	2.1	2.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	14.1	14.6	5.2	15.8	16.4	1.4	5.3	5.2	1.0	4.8	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.0	21.4	21.0	222.5	30.0	29.5	30.6	30.2	31.2	46.1	34.5	34.7
LnGrp LOS	D	C	C	F	C	C	C	C	C	D	C	C
Approach Vol, veh/h		1551			1595			688			484	
Approach Delay, s/veh		22.0			40.3			30.7			35.6	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	69.9	30.1	69.9	30.1
Change Period (Y+Rc), s	5.4	5.4	5.4	5.4
Max Green Setting (Gmax), s	62.6	26.6	62.6	26.6
Max Q Clear Time (g_c+I1), s	66.4	23.9	66.5	21.6
Green Ext Time (p_c), s	0.0	0.8	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	31.6
HCM 6th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1317	90	91	724	48	40	234	80	36	191	50
Future Volume (vph)	0	1317	90	91	724	48	40	234	80	36	191	50
Ideal Flow (vphpl)	1400	1400	1400	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		0.98			0.98		1.00	0.93		1.00	0.93	
Flpb, ped/bikes		1.00			1.00		0.79	1.00		0.84	1.00	
Frt		0.99			0.99		1.00	0.96		1.00	0.97	
Flt Protected		1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		2516			3030		1235	2600		1312	2835	
Flt Permitted		1.00			0.58		0.55	1.00		0.46	1.00	
Satd. Flow (perm)		2516			1754		717	2600		640	2835	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1386	95	96	762	51	42	246	84	38	201	53
RTOR Reduction (vph)	0	4	0	0	4	0	0	34	0	0	24	0
Lane Group Flow (vph)	0	1477	0	0	905	0	42	296	0	38	230	0
Confl. Peds. (#/hr)	423		174	174		423	282		215	215		282
Confl. Bikes (#/hr)			6			1			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)								8	8			
Turn Type		NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases				6			8			4		
Actuated Green, G (s)		59.7			67.4		23.0	23.0		23.0	23.0	
Effective Green, g (s)		59.7			67.4		23.0	23.0		23.0	23.0	
Actuated g/C Ratio		0.60			0.67		0.23	0.23		0.23	0.23	
Clearance Time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		5.0			5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1502			1239		164	598		147	652	
v/s Ratio Prot		c0.59			c0.03			c0.11			0.08	
v/s Ratio Perm					0.46		0.06			0.06		
v/c Ratio		0.98			0.73		0.26	0.50		0.26	0.35	
Uniform Delay, d1		19.7			10.5		31.5	33.5		31.5	32.3	
Progression Factor		1.00			0.83		1.00	1.00		0.56	0.51	
Incremental Delay, d2		19.5			1.8		0.8	0.6		0.8	0.3	
Delay (s)		39.2			10.5		32.3	34.1		18.5	16.8	
Level of Service		D			B		C	C		B	B	
Approach Delay (s)		39.2			10.5			33.9			17.0	
Approach LOS		D			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	27.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	120.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	1184	128	92	729	48	71	509	157	0	428	63
Future Volume (veh/h)	121	1184	128	92	729	48	71	509	157	0	428	63
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.89	1.00		0.89	0.95		0.82	1.00		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1660	1660	1660	1660	1660	1660	0	1660	1660
Adj Flow Rate, veh/h	127	1246	128	97	767	46	75	536	138	0	451	54
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, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	73	1625	156	72	2062	121	164	809	296	0	710	84
Arrive On Green	0.69	0.69	0.69	1.00	1.00	1.00	0.26	0.26	0.26	0.00	0.26	0.26
Sat Flow, veh/h	532	2349	240	392	3000	180	842	3154	1154	0	2853	328
Grp Volume(v), veh/h	127	686	688	97	403	410	75	536	138	0	255	250
Grp Sat Flow(s),veh/h/ln	532	1299	1290	392	1577	1602	842	1577	1154	0	1577	1521
Q Serve(g_s), s	9.9	35.1	35.9	20.5	0.0	0.0	8.7	15.2	10.1	0.0	14.3	14.7
Cycle Q Clear(g_c), s	10.0	35.1	35.9	56.8	0.0	0.0	23.4	15.2	10.1	0.0	14.3	14.7
Prop In Lane	1.00		0.19	1.00		0.11	1.00		1.00	0.00		0.22
Lane Grp Cap(c), veh/h	73	891	888	72	1082	1100	164	809	296	0	404	390
V/C Ratio(X)	1.73	0.77	0.77	1.35	0.37	0.37	0.46	0.66	0.47	0.00	0.63	0.64
Avail Cap(c_a), veh/h	436	891	885	198	1082	1100	167	817	299	0	404	390
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.90	0.95	0.95	0.95	0.00	0.72	0.72
Uniform Delay (d), s/veh	50.0	11.0	11.0	34.3	0.0	0.0	43.5	33.3	31.4	0.0	33.0	33.1
Incr Delay (d2), s/veh	381.0	6.4	6.6	218.2	0.9	0.9	1.9	1.9	1.1	0.0	2.3	2.6
Initial Q Delay(d3),s/veh	0.0	1.0	1.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	11.4	11.6	6.1	0.3	0.3	1.9	6.0	2.9	0.0	5.7	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	431.0	18.3	18.6	252.5	1.1	1.1	45.4	35.2	32.5	0.0	35.2	35.7
LnGrp LOS	F	B	B	F	A	A	D	D	C	A	D	D
Approach Vol, veh/h		1501			910			749			505	
Approach Delay, s/veh		53.3			27.9			35.7			35.4	
Approach LOS		D			C			D			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		73.9		30.7		73.9		30.7				
Change Period (Y+Rc), s		5.1		* 5.1		5.1		5.1				
Max Green Setting (Gmax), s		64.3		* 26		64.3		25.5				
Max Q Clear Time (g_c+I1), s		37.9		25.4		58.8		16.7				
Green Ext Time (p_c), s		20.8		0.3		3.9		2.1				
Intersection Summary												
HCM 6th Ctrl Delay			41.0									
HCM 6th LOS			D									
Notes												

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1112	105	71	832	270	48	232	86	190	193	33
Future Volume (veh/h)	0	1112	105	71	832	270	48	232	86	190	193	33
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	0.99		0.95	0.92		0.89	0.95		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1367	1367	1660	1660	1660	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	0	1146	102	73	858	172	49	239	89	196	199	10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	0	1345	104	72	1741	739	340	553	196	335	1105	453
Arrive On Green	0.00	1.00	1.00	0.55	0.55	0.55	0.25	0.25	0.25	0.07	0.35	0.35
Sat Flow, veh/h	0	2469	213	439	3154	1339	1067	2202	780	1581	3154	1295
Grp Volume(v), veh/h	0	619	629	73	858	172	49	168	160	196	199	10
Grp Sat Flow(s),veh/h/ln	0	1299	1315	439	1577	1339	1067	1577	1405	1581	1577	1295
Q Serve(g_s), s	0.0	0.0	0.0	8.9	16.7	6.6	3.6	8.9	9.6	6.9	4.4	0.5
Cycle Q Clear(g_c), s	0.0	0.0	0.0	8.9	16.7	6.6	3.6	8.9	9.6	6.9	4.4	0.5
Prop In Lane	0.00		0.16	1.00		1.00	1.00		0.56	1.00		1.00
Lane Grp Cap(c), veh/h	0	717	729	72	1741	739	340	396	353	335	1105	453
V/C Ratio(X)	0.00	0.86	0.86	1.01	0.49	0.23	0.14	0.42	0.45	0.59	0.18	0.02
Avail Cap(c_a), veh/h	0	717	726	314	1741	739	371	442	393	335	1196	491
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.50	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	50.0	14.2	11.5	29.4	31.4	31.6	28.3	22.5	21.3
Incr Delay (d2), s/veh	0.0	7.1	7.0	110.0	1.0	0.7	0.2	0.7	0.9	1.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	2.6	2.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.9	1.9	4.0	6.7	2.1	0.9	3.5	3.4	1.5	1.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	9.7	9.4	160.0	15.7	12.3	29.6	32.1	32.6	30.1	22.6	21.3
LnGrp LOS	A	A	A	F	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1248			1103			377			405	
Approach Delay, s/veh		9.6			24.7			32.0			26.2	
Approach LOS		A			C			C			C	
Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		60.3		39.7		60.3	9.9	29.8				
Change Period (Y+Rc), s		5.1		* 4.7		5.1	3.0	* 4.7				
Max Green Setting (Gmax), s		52.3		* 38		52.3	6.9	* 28				
Max Q Clear Time (g_c+I1), s		2.0		6.4		18.7	8.9	11.6				
Green Ext Time (p_c), s		26.0		1.4		17.6	0.0	2.1				
Intersection Summary												
HCM 6th Ctrl Delay			19.7									
HCM 6th LOS			B									

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	97	160	64	131	432	0	0	507	88
Future Volume (veh/h)	0	0	0	97	160	64	131	432	0	0	507	88
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.79	0.94		1.00	1.00		0.77
Parking Bus, Adj				0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	0.81
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1660	1660	1660	1660	1660	0	0	1660	1660
Adj Flow Rate, veh/h				102	168	46	138	455	0	0	534	70
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				303	513	143	383	1549	0	0	1198	155
Arrive On Green				0.37	0.37	0.37	0.49	0.49	0.00	0.00	0.49	0.49
Sat Flow, veh/h				814	1377	384	758	3237	0	0	2522	316
Grp Volume(v), veh/h				171	0	145	138	455	0	0	343	261
Grp Sat Flow(s),veh/h/ln				1362	0	1213	758	1577	0	0	1577	1177
Q Serve(g_s), s				5.4	0.0	5.1	8.7	5.1	0.0	0.0	8.5	8.7
Cycle Q Clear(g_c), s				5.4	0.0	5.1	17.4	5.1	0.0	0.0	8.5	8.7
Prop In Lane				0.60		0.32	1.00		0.00	0.00		0.27
Lane Grp Cap(c), veh/h				507	0	452	383	1549	0	0	775	578
V/C Ratio(X)				0.34	0.00	0.32	0.36	0.29	0.00	0.00	0.44	0.45
Avail Cap(c_a), veh/h				586	0	522	383	1549	0	0	775	578
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.61	0.61
Uniform Delay (d), s/veh				13.5	0.0	13.4	15.7	9.1	0.0	0.0	9.9	10.0
Incr Delay (d2), s/veh				0.4	0.0	0.4	2.6	0.5	0.0	0.0	1.1	1.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.6	0.0	1.3	1.7	1.7	0.0	0.0	2.8	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				13.9	0.0	13.8	18.3	9.6	0.0	0.0	11.1	11.5
LnGrp LOS				B	A	B	B	A	A	A	B	B
Approach Vol, veh/h					316			593			604	
Approach Delay, s/veh					13.9			11.6			11.3	
Approach LOS					B			B			B	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		33.7				33.7		26.3				
Change Period (Y+Rc), s		* 4.2				* 4.2		4.0				
Max Green Setting (Gmax), s		* 26				* 26		25.8				
Max Q Clear Time (g_c+I1), s		19.4				10.7		7.4				
Green Ext Time (p_c), s		3.2				6.0		1.9				

Intersection Summary		
HCM 6th Ctrl Delay		11.9
HCM 6th LOS		B

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	75	192	135	54	282	0	0	368	118
Future Volume (vph)	0	0	0	75	192	135	54	282	0	0	368	118
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)					3.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			1.00	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.95		1.00	1.00			0.96	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					2747		1568	2885			2779	
Flt Permitted					0.99		0.30	1.00			1.00	
Satd. Flow (perm)					2747		503	2885			2779	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	79	202	142	57	297	0	0	387	124
RTOR Reduction (vph)	0	0	0	0	87	0	0	0	0	0	44	0
Lane Group Flow (vph)	0	0	0	0	336	0	57	297	0	0	467	0
Confl. Bikes (#/hr)			1			1			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)				6	6	4		12			11	11
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					6			8			4	
Permitted Phases				6			8					
Actuated Green, G (s)					23.0		16.0	16.0			16.0	
Effective Green, g (s)					23.0		16.0	16.0			16.0	
Actuated g/C Ratio					0.33		0.23	0.23			0.23	
Clearance Time (s)					3.0		4.0	4.0			4.0	
Vehicle Extension (s)					2.0		2.0	2.0			2.0	
Lane Grp Cap (vph)					902		114	659			635	
v/s Ratio Prot								0.10			c0.17	
v/s Ratio Perm					0.12		0.11					
v/c Ratio					0.37		0.50	0.45			0.74	
Uniform Delay, d1					18.0		23.5	23.2			25.0	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					1.2		14.8	2.2			7.4	
Delay (s)					19.2		38.3	25.4			32.5	
Level of Service					B		D	C			C	
Approach Delay (s)		0.0			19.2			27.5			32.5	
Approach LOS		A			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	26.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	47.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	354	0	0	0	0	0	0	48
Future Vol, veh/h	0	0	0	0	354	0	0	0	0	0	0	48
Conflicting Peds, #/hr	0	0	0	251	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	373	0	0	0	0	0	0	51

Major/Minor	Major2			Minor2		
Conflicting Flow All	251	0	0	-	624	187
Stage 1	-	-	-	-	373	-
Stage 2	-	-	-	-	251	-
Critical Hdwy	4.16	-	-	-	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.23	-	-	-	4.03	3.33
Pot Cap-1 Maneuver	1304	-	0	0	398	820
Stage 1	-	-	0	0	614	-
Stage 2	-	-	0	0	-	-
Platoon blocked, %		-				
Mov Cap-1 Maneuver	1304	-	-	-	0	820
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

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

Minor Lane/Major Mvmt	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	1304	-	-	820
HCM Lane V/C Ratio	-	-	-	0.062
HCM Control Delay (s)	0	-	0	9.7
HCM Lane LOS	A	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.2

Intersection						
Int Delay, s/veh	0.1					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1321	35	13	856	0	0
Future Vol, veh/h	1321	35	13	856	0	0
Conflicting Peds, #/hr	0	100	100	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1376	36	14	892	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1512	0	-	806
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.16	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.23	-	-	3.33
Pot Cap-1 Maneuver	-	-	433	-	0	323
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	392	-	-	292
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	392	-
HCM Lane V/C Ratio	-	-	-	0.035	-
HCM Control Delay (s)	0	-	-	14.5	-
HCM Lane LOS	A	-	-	B	-
HCM 95th %tile Q(veh)	-	-	-	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	1318	30	80	1493	30	0	75	29	28	301	45
Future Volume (veh/h)	23	1318	30	80	1493	30	0	75	29	28	301	45
Initial Q (Qb), veh	0	10	0	0	15	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	0	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	26	1464	32	89	1659	32	0	83	8	31	334	27
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, %	3	3	3	3	3	3	0	3	3	3	3	3
Cap, veh/h	115	1910	40	72	1919	32	0	484	46	254	526	230
Arrive On Green	0.73	0.73	0.73	0.73	0.73	0.73	0.00	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	238	2597	57	287	2606	50	0	2987	276	1282	3154	1379
Grp Volume(v), veh/h	26	731	765	89	825	866	0	44	47	31	334	27
Grp Sat Flow(s),veh/h/ln	238	1299	1355	287	1299	1357	0	1577	1602	1282	1577	1379
Q Serve(g_s), s	9.0	34.2	34.4	27.4	46.3	46.8	0.0	2.4	2.5	2.1	9.9	1.7
Cycle Q Clear(g_c), s	55.8	34.2	34.4	61.9	46.3	46.8	0.0	2.4	2.5	4.6	9.9	1.7
Prop In Lane	1.00		0.04	1.00		0.04	0.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	115	954	995	72	954	998	0	263	267	254	526	230
V/C Ratio(X)	0.23	0.77	0.77	1.24	0.87	0.87	0.00	0.17	0.17	0.12	0.64	0.12
Avail Cap(c_a), veh/h	135	954	995	184	954	997	0	420	426	381	839	367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.41	0.41	0.41	0.00	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.7	8.5	8.5	50.0	10.5	10.5	0.0	35.7	35.8	37.7	38.8	35.4
Incr Delay (d2), s/veh	4.5	5.9	5.7	145.4	4.6	4.5	0.0	0.3	0.3	0.2	1.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.8	0.8	0.0	3.3	3.1	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	9.7	10.0	4.7	13.1	13.6	0.0	1.0	1.0	0.7	3.9	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.2	15.3	15.0	195.4	18.4	18.1	0.0	36.0	36.1	37.9	40.1	35.6
LnGrp LOS	D	B	B	F	B	B	A	D	D	D	D	D
Approach Vol, veh/h		1522			1780			91			392	
Approach Delay, s/veh		15.6			27.1			36.0			39.6	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	78.8	21.2	78.8	21.2
Change Period (Y+Rc), s	5.4	4.5	5.4	4.5
Max Green Setting (Gmax), s	63.5	26.6	63.5	26.6
Max Q Clear Time (g_c+I1), s	57.8	11.9	63.9	4.5
Green Ext Time (p_c), s	5.2	2.1	0.0	0.4

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	1491	26	96	1270	36	28	342	147	21	476	57
Future Volume (veh/h)	37	1491	26	96	1270	36	28	342	147	21	476	57
Initial Q (Qb), veh	0	10	0	0	15	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	0.99		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	41	1657	28	107	1411	38	31	380	143	23	529	54
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	100	1719	17	72	1691	40	128	535	198	160	692	70
Arrive On Green	0.65	0.65	0.65	0.65	0.65	0.65	0.48	0.48	0.48	0.24	0.24	0.24
Sat Flow, veh/h	300	2613	44	239	2582	69	820	2231	826	866	2884	293
Grp Volume(v), veh/h	41	822	863	107	709	740	31	267	256	23	289	294
Grp Sat Flow(s),veh/h/ln	300	1299	1358	239	1299	1352	820	1577	1479	866	1577	1600
Q Serve(g_s), s	12.2	60.0	60.6	4.7	41.8	42.0	3.5	13.3	13.8	2.4	17.0	17.1
Cycle Q Clear(g_c), s	54.2	60.0	60.6	65.2	41.8	42.0	20.7	13.3	13.8	16.2	17.0	17.1
Prop In Lane	1.00		0.03	1.00		0.05	1.00		0.56	1.00		0.18
Lane Grp Cap(c), veh/h	100	847	888	72	847	883	128	378	355	160	378	384
V/C Ratio(X)	0.41	0.97	0.97	1.49	0.84	0.84	0.24	0.71	0.72	0.14	0.76	0.77
Avail Cap(c_a), veh/h	142	847	886	83	847	882	150	420	393	183	420	426
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.33	0.33	0.33	1.00	1.00	1.00	0.82	0.82	0.82	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.6	17.2	17.2	50.0	14.2	14.2	33.2	23.2	23.4	41.4	35.4	35.4
Incr Delay (d2), s/veh	4.1	12.1	11.8	278.7	9.6	9.3	0.8	3.9	4.7	0.4	7.3	7.5
Initial Q Delay(d3),s/veh	0.0	8.5	8.0	0.0	3.5	3.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	20.6	21.3	7.3	14.5	15.0	0.7	4.2	4.1	0.5	7.3	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.7	37.8	37.0	328.7	27.3	26.7	34.0	27.1	28.1	41.8	42.7	42.9
LnGrp LOS	D	D	D	F	C	C	C	C	C	D	D	D
Approach Vol, veh/h		1726			1556			554			606	
Approach Delay, s/veh		37.6			47.8			28.0			42.7	
Approach LOS		D			D			C			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		70.6		29.4		70.6		29.4				
Change Period (Y+Rc), s		5.4		5.4		5.4		5.4				
Max Green Setting (Gmax), s		62.6		26.6		62.6		26.6				
Max Q Clear Time (g_c+I1), s		62.6		19.1		67.2		22.7				
Green Ext Time (p_c), s		0.0		2.3		0.0		1.3				
Intersection Summary												
HCM 6th Ctrl Delay			40.7									
HCM 6th LOS			D									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	647	41	127	1347	21	11	83	37	35	327	49
Future Volume (vph)	0	647	41	127	1347	21	11	83	37	35	327	49
Ideal Flow (vphpl)	1700	1700	1700	1400	1400	1400	1700	1700	1700	1700	1700	1700
Total Lost time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	0.98		1.00	0.99	
Flpb, ped/bikes		1.00			1.00		0.98	1.00		0.96	1.00	
Frt		0.99			1.00		1.00	0.95		1.00	0.98	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3098			2559		1543	2734		1511	3057	
Flt Permitted		1.00			0.74		0.39	1.00		0.67	1.00	
Satd. Flow (perm)		3098			1895		640	2734		1069	3057	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	681	43	134	1418	22	12	87	39	37	344	52
RTOR Reduction (vph)	0	4	0	0	1	0	0	30	0	0	12	0
Lane Group Flow (vph)	0	720	0	0	1573	0	12	96	0	37	384	0
Confl. Peds. (#/hr)	100		29	29		100	24		33	33		24
Confl. Bikes (#/hr)			3			2			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)								8	8			
Turn Type		NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases				6			8			4		
Actuated Green, G (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Effective Green, g (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Actuated g/C Ratio		0.60			0.67		0.23	0.23		0.23	0.23	
Clearance Time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		5.0			5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1843			1303		148	634		248	709	
v/s Ratio Prot		0.23			c0.05			0.04			c0.13	
v/s Ratio Perm					c0.76		0.02			0.03		
v/c Ratio		0.39			1.21		0.08	0.15		0.15	0.54	
Uniform Delay, d1		10.7			16.4		30.1	30.6		30.5	33.7	
Progression Factor		1.00			0.53		1.00	1.00		0.43	0.40	
Incremental Delay, d2		0.6			97.8		0.2	0.1		0.2	0.7	
Delay (s)		11.3			106.5		30.3	30.7		13.3	14.1	
Level of Service		B			F		C	C		B	B	
Approach Delay (s)		11.3			106.5			30.6			14.0	
Approach LOS		B			F			C			B	

Intersection Summary			
HCM 2000 Control Delay	64.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	109.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↑↱		↰	↑↑↱		↰	↑↑	↱		↑↑↱	
Traffic Volume (veh/h)	90	557	184	165	1345	21	42	379	70	0	527	82
Future Volume (veh/h)	90	557	184	165	1345	21	42	379	70	0	527	82
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	0.99		0.95	0.98		0.91	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1660	1660	1660	1367	1367	1367	1660	1660	1660	0	1660	1660
Adj Flow Rate, veh/h	95	586	183	174	1416	21	44	399	18	0	555	73
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, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	73	1813	550	72	2017	29	128	817	333	0	717	94
Arrive On Green	0.77	0.77	0.77	1.00	1.00	1.00	0.26	0.26	0.26	0.00	0.26	0.26
Sat Flow, veh/h	367	2338	728	568	2618	39	779	3154	1285	0	2852	363
Grp Volume(v), veh/h	95	395	374	174	702	735	44	399	18	0	315	313
Grp Sat Flow(s),veh/h/ln	367	1577	1488	568	1299	1358	779	1577	1285	0	1577	1554
Q Serve(g_s), s	8.2	7.7	7.7	5.6	0.0	0.0	5.6	10.7	1.1	0.0	18.5	18.7
Cycle Q Clear(g_c), s	8.6	7.7	7.7	14.0	0.0	0.0	24.2	10.7	1.1	0.0	18.5	18.7
Prop In Lane	1.00		0.49	1.00		0.03	1.00		1.00	0.00		0.23
Lane Grp Cap(c), veh/h	73	1214	1148	72	1000	1046	128	817	333	0	408	403
V/C Ratio(X)	1.31	0.33	0.33	2.41	0.70	0.70	0.34	0.49	0.05	0.00	0.77	0.78
Avail Cap(c_a), veh/h	353	1214	1146	461	1000	1046	128	817	333	0	408	403
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.51	0.51	0.51	1.00	1.00	1.00	0.00	0.30	0.30
Uniform Delay (d), s/veh	50.0	3.7	3.7	38.5	0.0	0.0	45.6	31.4	27.8	0.0	34.3	34.4
Incr Delay (d2), s/veh	208.6	0.7	0.8	656.8	2.1	2.0	1.6	0.5	0.1	0.0	2.8	3.0
Initial Q Delay(d3),s/veh	0.0	0.2	0.2	0.0	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	2.7	2.6	14.9	0.8	0.8	1.1	4.1	0.3	0.0	7.4	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	258.6	4.6	4.7	695.3	2.7	2.6	47.2	31.9	27.9	0.0	37.1	37.3
LnGrp LOS	F	A	A	F	A	A	D	C	C	A	D	D
Approach Vol, veh/h		864			1611			461			628	
Approach Delay, s/veh		32.6			77.5			33.2			37.2	
Approach LOS		C			E			C			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	82.5	31.0	82.5	31.0
Change Period (Y+Rc), s	5.1	* 5.1	5.1	5.1
Max Green Setting (Gmax), s	64.3	* 26	64.3	25.5
Max Q Clear Time (g_c+I1), s	10.6	26.2	16.0	20.7
Green Ext Time (p_c), s	17.9	0.0	35.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	53.8
HCM 6th LOS	D

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	487	62	76	1358	113	25	69	33	212	273	85
Future Volume (veh/h)	0	487	62	76	1358	113	25	69	33	212	273	85
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	0.99		0.97	0.95		0.92	0.94		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1660	1660	1367	1367	1367	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	0	492	55	77	1372	89	25	70	33	214	276	68
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	0	1657	179	72	1505	649	291	468	200	415	1018	428
Arrive On Green	0.00	0.77	0.77	0.58	0.58	0.58	0.22	0.22	0.22	0.07	0.32	0.32
Sat Flow, veh/h	0	2934	317	698	2598	1120	976	2089	894	1581	3154	1327
Grp Volume(v), veh/h	0	271	276	77	1372	89	25	51	52	214	276	68
Grp Sat Flow(s),veh/h/ln	0	1577	1591	698	1299	1120	976	1577	1405	1581	1577	1327
Q Serve(g_s), s	0.0	5.1	5.2	5.9	47.1	3.6	2.0	2.6	3.0	6.9	6.5	3.7
Cycle Q Clear(g_c), s	0.0	5.1	5.2	11.0	47.1	3.6	2.0	2.6	3.0	6.9	6.5	3.7
Prop In Lane	0.00		0.20	1.00		1.00	1.00		0.64	1.00		1.00
Lane Grp Cap(c), veh/h	0	913	923	72	1505	649	291	353	315	415	1018	428
V/C Ratio(X)	0.00	0.30	0.30	1.07	0.91	0.14	0.09	0.14	0.16	0.52	0.27	0.16
Avail Cap(c_a), veh/h	0	913	922	440	1505	649	345	442	394	415	1196	503
HCM Platoon Ratio	1.00	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.93	0.93	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	5.6	5.6	50.0	19.5	9.6	30.9	31.1	31.3	29.1	25.1	24.2
Incr Delay (d2), s/veh	0.0	0.8	0.8	126.4	9.9	0.4	0.1	0.2	0.2	0.5	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.3	0.3	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.1	2.1	4.3	16.8	0.9	0.5	1.0	1.0	1.5	2.5	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.7	6.7	176.4	33.0	10.1	31.0	31.3	31.5	29.6	25.3	24.3
LnGrp LOS	A	A	A	F	C	B	C	C	C	C	C	C
Approach Vol, veh/h		547			1538			128			558	
Approach Delay, s/veh		6.7			38.8			31.3			26.8	
Approach LOS		A			D			C			C	

Timer - Assigned Phs		2		4		6	7	8
Phs Duration (G+Y+Rc), s		63.0		37.0		63.0	9.9	27.1
Change Period (Y+Rc), s		5.1		* 4.7		5.1	3.0	* 4.7
Max Green Setting (Gmax), s		52.3		* 38		52.3	6.9	* 28
Max Q Clear Time (g_c+I1), s		7.2		8.5		49.1	8.9	5.0
Green Ext Time (p_c), s		8.1		2.2		3.0	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	29.7
HCM 6th LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	61	335	63	93	502	0	0	567	141
Future Volume (veh/h)	0	0	0	61	335	63	93	502	0	0	567	141
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.92	0.99		1.00	1.00		0.96
Parking Bus, Adj				0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	0.83
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1367	1367	1367	1660	1660	0	0	1660	1660
Adj Flow Rate, veh/h				66	360	46	100	540	0	0	610	117
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				99	562	75	388	1683	0	0	1277	244
Arrive On Green				0.33	0.33	0.33	0.53	0.53	0.00	0.00	0.53	0.53
Sat Flow, veh/h				300	1704	227	718	3237	0	0	2477	458
Grp Volume(v), veh/h				251	0	221	100	540	0	0	401	326
Grp Sat Flow(s),veh/h/ln				1140	0	1090	718	1577	0	0	1577	1274
Q Serve(g_s), s				11.4	0.0	10.2	6.1	5.8	0.0	0.0	9.5	9.6
Cycle Q Clear(g_c), s				11.4	0.0	10.2	15.7	5.8	0.0	0.0	9.5	9.6
Prop In Lane				0.26		0.21	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				376	0	359	388	1683	0	0	842	680
V/C Ratio(X)				0.67	0.00	0.61	0.26	0.32	0.00	0.00	0.48	0.48
Avail Cap(c_a), veh/h				490	0	469	388	1683	0	0	842	680
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				17.3	0.0	16.9	13.7	7.9	0.0	0.0	8.8	8.8
Incr Delay (d2), s/veh				2.2	0.0	1.7	1.6	0.5	0.0	0.0	1.9	2.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.0	0.0	2.5	1.1	1.8	0.0	0.0	3.2	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				19.5	0.0	18.6	15.3	8.4	0.0	0.0	10.7	11.2
LnGrp LOS				B	A	B	B	A	A	A	B	B
Approach Vol, veh/h					472			640			727	
Approach Delay, s/veh					19.1			9.5			10.9	
Approach LOS					B			A			B	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		36.2				36.2		23.8				
Change Period (Y+Rc), s		* 4.2				* 4.2		4.0				
Max Green Setting (Gmax), s		* 26				* 26		25.8				
Max Q Clear Time (g_c+I1), s		17.7				11.6		13.4				
Green Ext Time (p_c), s		4.2				6.8		2.4				

Intersection Summary		
HCM 6th Ctrl Delay		12.5
HCM 6th LOS		B

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	47	331	43	22	73	0	0	235	174
Future Volume (vph)	0	0	0	47	331	43	22	73	0	0	235	174
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)					3.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			0.99	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.98		1.00	1.00			0.94	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					2868		1568	2885			2693	
Flt Permitted					0.99		0.25	1.00			1.00	
Satd. Flow (perm)					2868		413	2885			2693	
Peak-hour factor, PHF	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Adj. Flow (vph)	0	0	0	67	473	61	31	104	0	0	336	249
RTOR Reduction (vph)	0	0	0	0	12	0	0	0	0	0	191	0
Lane Group Flow (vph)	0	0	0	0	589	0	31	104	0	0	394	0
Confl. Bikes (#/hr)			1			1			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)				6	6	4		12			11	11
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					6			8			4	
Permitted Phases				6			8					
Actuated Green, G (s)					23.0		16.0	16.0			16.0	
Effective Green, g (s)					23.0		16.0	16.0			16.0	
Actuated g/C Ratio					0.33		0.23	0.23			0.23	
Clearance Time (s)					3.0		4.0	4.0			4.0	
Vehicle Extension (s)					2.0		2.0	2.0			2.0	
Lane Grp Cap (vph)					942		94	659			615	
v/s Ratio Prot								0.04			c0.15	
v/s Ratio Perm					0.21		0.08					
v/c Ratio					0.63		0.33	0.16			0.64	
Uniform Delay, d1					19.9		22.5	21.6			24.4	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					3.1		9.1	0.5			5.0	
Delay (s)					23.0		31.7	22.1			29.4	
Level of Service					C		C	C			C	
Approach Delay (s)		0.0			23.0			24.3			29.4	
Approach LOS		A			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	26.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	40.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	14	491	632	137
Future Vol, veh/h	0	0	14	491	632	137
Conflicting Peds, #/hr	0	0	46	0	0	46
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	25	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	15	522	672	146

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	455	864	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	4.16	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	2.23	-	-	-
Pot Cap-1 Maneuver	0	550	768	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	526	734	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	734	-	-	-	-
HCM Lane V/C Ratio	0.02	-	-	-	-
HCM Control Delay (s)	10	-	0	-	-
HCM Lane LOS	B	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	307	0	0	0	0	0	0	114
Future Vol, veh/h	0	0	0	0	307	0	0	0	0	0	0	114
Conflicting Peds, #/hr	0	0	0	79	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	374	0	0	0	0	0	0	139

Major/Minor	Major2			Minor2		
Conflicting Flow All	79	0	0	-	453	187
Stage 1	-	-	-	-	374	-
Stage 2	-	-	-	-	79	-
Critical Hdwy	4.16	-	-	-	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.23	-	-	-	4.03	3.33
Pot Cap-1 Maneuver	1510	-	0	0	499	820
Stage 1	-	-	0	0	614	-
Stage 2	-	-	0	0	-	-
Platoon blocked, %		-				
Mov Cap-1 Maneuver	1510	-	-	-	0	820
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

Approach	WB	SB
HCM Control Delay, s	0	10.3
HCM LOS		B

Minor Lane/Major Mvmt	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	1510	-	-	820
HCM Lane V/C Ratio	-	-	-	0.17
HCM Control Delay (s)	0	-	0	10.3
HCM Lane LOS	A	-	A	B
HCM 95th %tile Q(veh)	0	-	-	0.6

Intersection	
Int Delay, s/veh	1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	667	29	31	1499	0	79
Future Vol, veh/h	667	29	31	1499	0	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	725	32	34	1629	0	86

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	757	0	-	379
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	850	-	0	619
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	850	-	-	619
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	11.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	619	-	-	850	-
HCM Lane V/C Ratio	0.139	-	-	0.04	-
HCM Control Delay (s)	11.8	-	-	9.4	1.9
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	1470	54	73	1374	51	0	228	55	31	164	42
Future Volume (veh/h)	35	1470	54	73	1374	51	0	228	55	31	164	42
Initial Q (Qb), veh	0	15	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.97	0.98		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	0	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	39	1633	57	81	1527	54	0	253	40	34	182	18
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, %	3	3	3	3	3	3	0	3	3	3	3	3
Cap, veh/h	95	1746	41	72	1728	54	0	621	97	229	720	286
Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.67	0.00	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	264	2558	89	238	2557	90	0	2806	424	1061	3154	1254
Grp Volume(v), veh/h	39	826	864	81	774	807	0	145	148	34	182	18
Grp Sat Flow(s),veh/h/ln	264	1299	1348	238	1299	1348	0	1577	1570	1061	1577	1254
Q Serve(g_s), s	14.1	57.2	58.4	8.9	48.2	48.9	0.0	7.8	8.0	2.8	4.7	1.1
Cycle Q Clear(g_c), s	63.0	57.2	58.4	67.3	48.2	48.9	0.0	7.8	8.0	10.9	4.7	1.1
Prop In Lane	1.00		0.07	1.00		0.07	0.00		0.27	1.00		1.00
Lane Grp Cap(c), veh/h	95	874	911	72	874	908	0	360	358	229	720	286
V/C Ratio(X)	0.41	0.95	0.95	1.12	0.89	0.89	0.00	0.40	0.41	0.15	0.25	0.06
Avail Cap(c_a), veh/h	121	874	907	93	874	907	0	420	418	269	839	334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.30	0.30	0.30	0.00	0.81	0.81	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.8	15.7	15.8	50.0	13.9	13.9	0.0	32.8	32.9	37.5	31.6	30.2
Incr Delay (d2), s/veh	12.5	19.7	19.6	95.9	4.4	4.4	0.0	0.6	0.6	0.3	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	9.7	9.4	0.0	2.1	2.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	22.3	23.2	3.7	13.9	14.5	0.0	3.1	3.1	0.8	1.8	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.3	45.2	44.8	145.9	20.3	20.2	0.0	33.4	33.5	37.8	31.8	30.3
LnGrp LOS	E	D	D	F	C	C	A	C	C	D	C	C
Approach Vol, veh/h		1729			1662			293			234	
Approach Delay, s/veh		45.3			26.4			33.4			32.6	
Approach LOS		D			C			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		72.7		27.3		72.7		27.3				
Change Period (Y+Rc), s		5.4		4.5		5.4		4.5				
Max Green Setting (Gmax), s		63.5		26.6		63.5		26.6				
Max Q Clear Time (g_c+I1), s		65.0		12.9		69.3		10.0				
Green Ext Time (p_c), s		0.0		1.1		0.0		1.6				

Intersection Summary			
HCM 6th Ctrl Delay			35.6
HCM 6th LOS			D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	1316	42	93	1327	32	93	429	168	36	361	63
Future Volume (veh/h)	45	1316	42	93	1327	32	93	429	168	36	361	63
Initial Q (Qb), veh	0	15	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	0.99		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	50	1462	45	103	1474	34	103	477	156	40	401	56
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	96	1639	40	72	1648	33	194	602	195	142	718	100
Arrive On Green	0.63	0.63	0.63	0.63	0.63	0.63	0.52	0.52	0.52	0.26	0.26	0.26
Sat Flow, veh/h	284	2570	79	284	2594	60	917	2322	753	783	2771	384
Grp Volume(v), veh/h	50	737	770	103	737	771	103	323	310	40	227	230
Grp Sat Flow(s),veh/h/ln	284	1299	1350	284	1299	1355	917	1577	1498	783	1577	1578
Q Serve(g_s), s	14.8	48.2	48.7	14.6	48.2	48.5	10.6	16.7	17.0	4.9	12.4	12.7
Cycle Q Clear(g_c), s	63.3	48.2	48.7	63.3	48.2	48.5	23.3	16.7	17.0	21.9	12.4	12.7
Prop In Lane	1.00		0.06	1.00		0.04	1.00		0.50	1.00		0.24
Lane Grp Cap(c), veh/h	96	822	856	72	822	858	194	409	388	142	409	409
V/C Ratio(X)	0.52	0.90	0.90	1.43	0.90	0.90	0.53	0.79	0.80	0.28	0.55	0.56
Avail Cap(c_a), veh/h	114	822	854	113	822	858	200	420	399	147	420	420
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.64	0.64	0.64	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.4	16.6	16.6	50.0	16.2	16.2	29.4	21.8	21.9	43.7	32.0	32.1
Incr Delay (d2), s/veh	1.8	1.7	1.6	256.5	14.5	14.1	1.6	6.3	7.1	1.1	1.5	1.6
Initial Q Delay(d3),s/veh	0.0	5.8	5.4	0.0	2.6	2.4	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	15.2	15.7	6.9	16.9	17.5	2.1	5.1	5.0	1.0	4.9	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.3	24.1	23.6	306.5	33.3	32.8	31.0	28.2	29.1	44.8	33.6	33.8
LnGrp LOS	D	C	C	F	C	C	C	C	C	D	C	C
Approach Vol, veh/h		1557			1611			736			497	
Approach Delay, s/veh		24.6			50.5			28.9			34.6	
Approach LOS		C			D			C			C	

Timer - Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		68.7		31.3		68.7		31.3
Change Period (Y+Rc), s		5.4		5.4		5.4		5.4
Max Green Setting (Gmax), s		62.6		26.6		62.6		26.6
Max Q Clear Time (g_c+I1), s		65.3		23.9		65.3		25.3
Green Ext Time (p_c), s		0.0		0.8		0.0		0.6

Intersection Summary	
HCM 6th Ctrl Delay	36.0
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1346	90	91	724	48	42	235	101	51	191	50
Future Volume (vph)	0	1346	90	91	724	48	42	235	101	51	191	50
Ideal Flow (vphpl)	1400	1400	1400	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		0.98			0.98		1.00	0.91		1.00	0.93	
Flpb, ped/bikes		1.00			1.00		0.79	1.00		0.84	1.00	
Frt		0.99			0.99		1.00	0.95		1.00	0.97	
Flt Protected		1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		2517			3030		1235	2545		1324	2835	
Flt Permitted		1.00			0.57		0.55	1.00		0.44	1.00	
Satd. Flow (perm)		2517			1736		717	2545		612	2835	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1417	95	96	762	51	44	247	106	54	201	53
RTOR Reduction (vph)	0	4	0	0	4	0	0	48	0	0	24	0
Lane Group Flow (vph)	0	1508	0	0	905	0	44	305	0	54	230	0
Confl. Peds. (#/hr)	423		174	174		423	282		215	215		282
Confl. Bikes (#/hr)			6			1			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)								8	8			
Turn Type		NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases				6			8			4		
Actuated Green, G (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Effective Green, g (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Actuated g/C Ratio		0.60			0.67		0.23	0.23		0.23	0.23	
Clearance Time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		5.0			5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1497			1224		166	590		141	657	
v/s Ratio Prot		c0.60			c0.03			c0.12			0.08	
v/s Ratio Perm					0.46		0.06			0.09		
v/c Ratio		1.01			0.74		0.27	0.52		0.38	0.35	
Uniform Delay, d1		20.2			10.7		31.4	33.5		32.4	32.1	
Progression Factor		1.00			0.76		1.00	1.00		0.59	0.53	
Incremental Delay, d2		25.0			1.9		0.9	0.8		1.4	0.3	
Delay (s)		45.2			10.0		32.3	34.3		20.5	17.4	
Level of Service		D			A		C	C		C	B	
Approach Delay (s)		45.2			10.0			34.0			17.9	
Approach LOS		D			A			C			B	

Intersection Summary			
HCM 2000 Control Delay	30.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	121.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	1204	294	102	748	48	85	509	157	0	437	83
Future Volume (veh/h)	163	1204	294	102	748	48	85	509	157	0	437	83
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.90	1.00		0.90	0.95		0.82	1.00		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1660	1660	1660	1660	1660	1660	0	1660	1660
Adj Flow Rate, veh/h	172	1267	302	107	787	47	89	536	140	0	460	71
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, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	72	1611	350	72	2331	136	156	817	299	0	689	105
Arrive On Green	0.77	0.77	0.77	1.00	1.00	1.00	0.26	0.26	0.26	0.00	0.26	0.26
Sat Flow, veh/h	524	2045	475	325	3003	179	826	3154	1156	0	2744	405
Grp Volume(v), veh/h	172	793	776	107	413	421	89	536	140	0	270	261
Grp Sat Flow(s),veh/h/ln	524	1299	1221	325	1577	1605	826	1577	1156	0	1577	1489
Q Serve(g_s), s	11.2	35.2	39.3	30.4	0.0	0.0	10.2	15.2	10.2	0.0	15.3	15.7
Cycle Q Clear(g_c), s	11.6	35.2	39.3	71.5	0.0	0.0	25.9	15.2	10.2	0.0	15.3	15.7
Prop In Lane	1.00		0.39	1.00		0.11	1.00		1.00	0.00		0.27
Lane Grp Cap(c), veh/h	72	1007	952	72	1222	1245	156	817	299	0	408	386
V/C Ratio(X)	2.38	0.79	0.82	1.48	0.34	0.34	0.57	0.66	0.47	0.00	0.66	0.68
Avail Cap(c_a), veh/h	476	1007	947	190	1222	1244	156	817	299	0	408	386
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00	0.00	0.66	0.66
Uniform Delay (d), s/veh	50.0	6.9	7.3	38.7	0.0	0.0	45.2	33.1	31.2	0.0	33.1	33.3
Incr Delay (d2), s/veh	661.8	6.2	7.6	272.1	0.7	0.7	4.9	1.9	1.1	0.0	2.6	3.1
Initial Q Delay(d3),s/veh	0.0	0.8	1.1	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.1	10.1	10.7	7.2	0.3	0.3	2.4	6.0	2.9	0.0	6.1	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	711.8	14.0	16.0	310.8	0.8	0.8	50.1	35.0	32.4	0.0	35.8	36.4
LnGrp LOS	F	B	B	F	A	A	D	C	C	A	D	D
Approach Vol, veh/h		1741			941			765			531	
Approach Delay, s/veh		83.8			36.1			36.3			36.1	
Approach LOS		F			D			D			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	83.0	31.0	83.0	31.0
Change Period (Y+Rc), s	5.1	* 5.1	5.1	5.1
Max Green Setting (Gmax), s	64.3	* 26	64.3	25.5
Max Q Clear Time (g_c+I1), s	41.3	27.9	73.5	17.7
Green Ext Time (p_c), s	20.4	0.0	0.0	2.1

Intersection Summary	
HCM 6th Ctrl Delay	57.0
HCM 6th LOS	E

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1127	110	71	854	270	55	232	86	190	193	33
Future Volume (veh/h)	0	1127	110	71	854	270	55	232	86	190	193	33
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	0.99		0.95	0.92		0.89	0.95		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1367	1367	1660	1660	1660	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	0	1162	107	73	880	175	57	239	89	196	199	10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	0	1343	106	73	1741	739	340	553	196	335	1105	453
Arrive On Green	0.00	1.00	1.00	0.55	0.55	0.55	0.25	0.25	0.25	0.07	0.35	0.35
Sat Flow, veh/h	0	2461	220	430	3154	1339	1067	2202	780	1581	3154	1295
Grp Volume(v), veh/h	0	630	639	73	880	175	57	168	160	196	199	10
Grp Sat Flow(s),veh/h/ln	0	1299	1314	430	1577	1339	1067	1577	1405	1581	1577	1295
Q Serve(g_s), s	0.0	0.0	0.0	9.2	17.3	6.7	4.2	8.9	9.6	6.9	4.4	0.5
Cycle Q Clear(g_c), s	0.0	0.0	0.0	9.2	17.3	6.7	4.2	8.9	9.6	6.9	4.4	0.5
Prop In Lane	0.00		0.17	1.00		1.00	1.00		0.56	1.00		1.00
Lane Grp Cap(c), veh/h	0	717	729	73	1741	739	340	396	353	335	1105	453
V/C Ratio(X)	0.00	0.88	0.88	1.00	0.51	0.24	0.17	0.42	0.45	0.59	0.18	0.02
Avail Cap(c_a), veh/h	0	717	725	309	1741	739	371	442	393	335	1196	491
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.20	0.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	50.0	14.3	11.6	29.6	31.4	31.6	28.3	22.5	21.3
Incr Delay (d2), s/veh	0.0	3.4	3.3	105.3	1.1	0.8	0.2	0.7	0.9	1.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	2.9	2.8	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.3	1.2	4.0	7.0	2.1	1.1	3.5	3.4	1.5	1.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	6.3	6.1	155.3	15.9	12.3	29.8	32.1	32.6	30.1	22.6	21.3
LnGrp LOS	A	A	A	F	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1269			1128			385			405	
Approach Delay, s/veh		6.2			24.3			32.0			26.2	
Approach LOS		A			C			C			C	

Timer - Assigned Phs		2		4		6	7	8
Phs Duration (G+Y+Rc), s		60.3		39.7		60.3	9.9	29.8
Change Period (Y+Rc), s		5.1		* 4.7		5.1	3.0	* 4.7
Max Green Setting (Gmax), s		52.3		* 38		52.3	6.9	* 28
Max Q Clear Time (g_c+I1), s		2.0		6.4		19.3	8.9	11.6
Green Ext Time (p_c), s		26.7		1.4		17.9	0.0	2.1

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

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	97	166	66	131	454	0	0	526	102
Future Volume (veh/h)	0	0	0	97	166	66	131	454	0	0	526	102
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.79	0.94		1.00	1.00		0.77
Parking Bus, Adj				0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	0.83
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1660	1660	1660	1660	1660	0	0	1660	1660
Adj Flow Rate, veh/h				102	175	49	138	478	0	0	554	82
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				293	516	147	370	1549	0	0	1186	174
Arrive On Green				0.37	0.37	0.37	0.49	0.49	0.00	0.00	0.49	0.49
Sat Flow, veh/h				788	1387	395	740	3237	0	0	2497	354
Grp Volume(v), veh/h				176	0	150	138	478	0	0	360	276
Grp Sat Flow(s),veh/h/ln				1363	0	1207	740	1577	0	0	1577	1191
Q Serve(g_s), s				5.6	0.0	5.3	9.1	5.5	0.0	0.0	9.0	9.2
Cycle Q Clear(g_c), s				5.6	0.0	5.3	18.3	5.5	0.0	0.0	9.0	9.2
Prop In Lane				0.58		0.33	1.00		0.00	0.00		0.30
Lane Grp Cap(c), veh/h				508	0	449	370	1549	0	0	774	585
V/C Ratio(X)				0.35	0.00	0.33	0.37	0.31	0.00	0.00	0.46	0.47
Avail Cap(c_a), veh/h				586	0	519	370	1549	0	0	774	585
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				13.6	0.0	13.5	16.2	9.2	0.0	0.0	10.1	10.1
Incr Delay (d2), s/veh				0.4	0.0	0.4	2.9	0.5	0.0	0.0	2.0	2.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.6	0.0	1.4	1.7	1.8	0.0	0.0	3.1	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				14.0	0.0	13.9	19.1	9.7	0.0	0.0	12.1	12.8
LnGrp LOS				B	A	B	B	A	A	A	B	B
Approach Vol, veh/h					326			616			636	
Approach Delay, s/veh					14.0			11.8			12.4	
Approach LOS					B			B			B	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		33.7				33.7		26.3				
Change Period (Y+Rc), s		* 4.2				* 4.2		4.0				
Max Green Setting (Gmax), s		* 26				* 26		25.8				
Max Q Clear Time (g_c+I1), s		20.3				11.2		7.6				
Green Ext Time (p_c), s		3.0				6.2		1.9				

Intersection Summary			
HCM 6th Ctrl Delay			12.5
HCM 6th LOS			B

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	86	197	145	54	297	0	0	368	118
Future Volume (vph)	0	0	0	86	197	145	54	297	0	0	368	118
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)					3.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			1.00	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.95		1.00	1.00			0.96	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					2743		1568	2885			2779	
Flt Permitted					0.99		0.30	1.00			1.00	
Satd. Flow (perm)					2743		503	2885			2779	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	91	207	153	57	313	0	0	387	124
RTOR Reduction (vph)	0	0	0	0	90	0	0	0	0	0	44	0
Lane Group Flow (vph)	0	0	0	0	361	0	57	313	0	0	467	0
Confl. Bikes (#/hr)			1			1			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)				6	6	4		12			11	11
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					6			8			4	
Permitted Phases				6			8					
Actuated Green, G (s)					23.0		16.0	16.0			16.0	
Effective Green, g (s)					23.0		16.0	16.0			16.0	
Actuated g/C Ratio					0.33		0.23	0.23			0.23	
Clearance Time (s)					3.0		4.0	4.0			4.0	
Vehicle Extension (s)					2.0		2.0	2.0			2.0	
Lane Grp Cap (vph)					901		114	659			635	
v/s Ratio Prot								0.11			c0.17	
v/s Ratio Perm					0.13		0.11					
v/c Ratio					0.40		0.50	0.47			0.74	
Uniform Delay, d1					18.2		23.5	23.4			25.0	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					1.3		14.8	2.4			7.4	
Delay (s)					19.5		38.3	25.8			32.5	
Level of Service					B		D	C			C	
Approach Delay (s)		0.0			19.5			27.7			32.5	
Approach LOS		A			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	26.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	48.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection						
Int Delay, s/veh	0.1					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	9	751	630	152
Future Vol, veh/h	0	0	9	751	630	152
Conflicting Peds, #/hr	0	0	406	0	0	406
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	25	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	9	791	663	160

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	818	1229	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	4.16	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	2.23	-	-	-
Pot Cap-1 Maneuver	0	317	557	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	194	342	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	342	-	-	-	-
HCM Lane V/C Ratio	0.028	-	-	-	-
HCM Control Delay (s)	15.8	-	0	-	-
HCM Lane LOS	C	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	374	0	0	0	0	0	0	54
Future Vol, veh/h	0	0	0	0	374	0	0	0	0	0	0	54
Conflicting Peds, #/hr	0	0	0	251	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	394	0	0	0	0	0	0	57

Major/Minor	Major2			Minor2		
Conflicting Flow All	251	0	0	-	645	197
Stage 1	-	-	-	-	394	-
Stage 2	-	-	-	-	251	-
Critical Hdwy	4.16	-	-	-	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.23	-	-	-	4.03	3.33
Pot Cap-1 Maneuver	1304	-	0	0	387	808
Stage 1	-	-	0	0	601	-
Stage 2	-	-	0	0	-	-
Platoon blocked, %		-				
Mov Cap-1 Maneuver	1304	-	-	-	0	808
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

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

Minor Lane/Major Mvmt	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	1304	-	-	808
HCM Lane V/C Ratio	-	-	-	0.07
HCM Control Delay (s)	0	-	0	9.8
HCM Lane LOS	A	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.2

Intersection	
Int Delay, s/veh	8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↱			↰↑		↱
Traffic Vol, veh/h	1340	82	88	856	0	235
Future Vol, veh/h	1340	82	88	856	0	235
Conflicting Peds, #/hr	0	100	100	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1396	85	92	892	0	245

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1581	0	-	841
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.16	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.23	-	-	3.33
Pot Cap-1 Maneuver	-	-	407	-	0	306
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	368	-	-	277
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	5	68.3
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	277	-	-	368	-
HCM Lane V/C Ratio	0.884	-	-	0.249	-
HCM Control Delay (s)	68.3	-	-	18	3.7
HCM Lane LOS	F	-	-	C	A
HCM 95th %tile Q(veh)	7.8	-	-	1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1590	30	90	1750	30	0	80	30	30	320	50
Future Volume (veh/h)	30	1590	30	90	1750	30	0	80	30	30	320	50
Initial Q (Qb), veh	0	10	0	0	15	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	0	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	33	1767	32	100	1944	32	0	89	17	33	356	37
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, %	3	3	3	3	3	3	0	3	3	3	3	3
Cap, veh/h	72	1906	29	72	1921	17	0	457	85	253	545	239
Arrive On Green	0.73	0.73	0.73	0.73	0.73	0.73	0.00	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	180	2609	47	214	2615	43	0	2727	490	1265	3154	1380
Grp Volume(v), veh/h	33	877	922	100	963	1013	0	52	54	33	356	37
Grp Sat Flow(s),veh/h/ln	180	1299	1357	214	1299	1359	0	1577	1557	1265	1577	1380
Q Serve(g_s), s	0.0	56.6	57.6	15.3	72.8	72.8	0.0	2.8	3.0	2.3	10.5	2.3
Cycle Q Clear(g_c), s	72.8	56.6	57.6	72.8	72.8	72.8	0.0	2.8	3.0	5.3	10.5	2.3
Prop In Lane	1.00		0.03	1.00		0.03	0.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	72	946	989	72	946	992	0	273	269	253	545	239
V/C Ratio(X)	0.46	0.93	0.93	1.39	1.02	1.02	0.00	0.19	0.20	0.13	0.65	0.16
Avail Cap(c_a), veh/h	72	946	988	105	946	989	0	420	414	371	839	367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	0.00	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	12.0	12.1	50.0	13.6	13.6	0.0	35.4	35.4	37.7	38.6	35.1
Incr Delay (d2), s/veh	19.6	16.3	16.2	182.7	13.8	14.7	0.0	0.3	0.4	0.2	1.3	0.3
Initial Q Delay(d3),s/veh	0.0	2.8	2.7	0.0	28.6	27.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	18.0	18.9	5.4	26.6	27.8	0.0	1.1	1.2	0.7	4.2	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.6	31.1	31.1	232.7	55.9	55.5	0.0	35.7	35.8	37.9	39.9	35.4
LnGrp LOS	E	C	C	F	F	F	A	D	D	D	D	D
Approach Vol, veh/h		1832			2076			106			426	
Approach Delay, s/veh		31.8			64.2			35.7			39.3	
Approach LOS		C			E			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		78.2		21.8		78.2		21.8				
Change Period (Y+Rc), s		5.4		4.5		5.4		4.5				
Max Green Setting (Gmax), s		63.5		26.6		63.5		26.6				
Max Q Clear Time (g_c+I1), s		74.8		12.5		74.8		5.0				
Green Ext Time (p_c), s		0.0		2.2		0.0		0.5				

Intersection Summary			
HCM 6th Ctrl Delay			47.8
HCM 6th LOS			D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1770	30	100	1530	40	20	360	150	40	500	60
Future Volume (veh/h)	40	1770	30	100	1530	40	20	360	150	40	500	60
Initial Q (Qb), veh	0	10	0	0	15	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	0.99		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	44	1967	32	111	1700	42	22	400	157	44	556	57
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	72	1717	15	72	1711	20	119	530	205	147	695	71
Arrive On Green	0.65	0.65	0.65	0.65	0.65	0.65	0.48	0.48	0.48	0.24	0.24	0.24
Sat Flow, veh/h	226	2615	42	176	2589	64	798	2200	851	840	2883	295
Grp Volume(v), veh/h	44	974	1025	111	850	892	22	285	272	44	304	309
Grp Sat Flow(s),veh/h/ln	226	1299	1359	176	1299	1353	798	1577	1473	840	1577	1600
Q Serve(g_s), s	0.0	65.1	65.1	0.0	65.1	65.1	2.6	14.7	15.1	5.0	18.1	18.2
Cycle Q Clear(g_c), s	65.1	65.1	65.1	65.1	65.1	65.1	20.8	14.7	15.1	20.2	18.1	18.2
Prop In Lane	1.00		0.03	1.00		0.05	1.00		0.58	1.00		0.18
Lane Grp Cap(c), veh/h	72	845	887	72	845	886	119	380	355	147	380	386
V/C Ratio(X)	0.61	1.15	1.16	1.54	1.01	1.01	0.18	0.75	0.77	0.30	0.80	0.80
Avail Cap(c_a), veh/h	72	845	884	72	845	881	139	420	392	168	420	426
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.79	0.79	0.79	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	17.5	17.5	50.0	17.5	17.5	33.5	23.4	23.6	43.7	35.7	35.7
Incr Delay (d2), s/veh	3.5	69.8	71.5	301.3	32.4	31.9	0.6	5.3	6.4	1.1	9.6	9.8
Initial Q Delay(d3),s/veh	0.0	21.3	20.3	0.0	31.9	30.5	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	37.4	39.4	7.8	31.1	32.1	0.5	4.6	4.5	1.1	7.9	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.5	108.5	109.2	351.3	81.8	79.9	34.1	28.8	30.0	44.8	45.2	45.5
LnGrp LOS	D	F	F	F	F	F	C	C	C	D	D	D
Approach Vol, veh/h		2043			1853			579			657	
Approach Delay, s/veh		107.7			97.0			29.5			45.3	
Approach LOS		F			F			C			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		70.5		29.5		70.5		29.5				
Change Period (Y+Rc), s		5.4		5.4		5.4		5.4				
Max Green Setting (Gmax), s		62.6		26.6		62.6		26.6				
Max Q Clear Time (g_c+I1), s		67.1		22.2		67.1		22.8				
Green Ext Time (p_c), s		0.0		1.7		0.0		1.3				

Intersection Summary			
HCM 6th Ctrl Delay			87.0
HCM 6th LOS			F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	720	50	140	1420	30	20	100	40	40	360	60
Future Volume (vph)	0	720	50	140	1420	30	20	100	40	40	360	60
Ideal Flow (vphpl)	1700	1700	1700	1400	1400	1400	1700	1700	1700	1700	1700	1700
Total Lost time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	0.98		1.00	0.99	
Flpb, ped/bikes		1.00			1.00		0.99	1.00		0.96	1.00	
Frt		0.99			1.00		1.00	0.96		1.00	0.98	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3094			2555		1545	2747		1513	3050	
Flt Permitted		1.00			0.69		0.35	1.00		0.66	1.00	
Satd. Flow (perm)		3094			1783		567	2747		1049	3050	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	758	53	147	1495	32	21	105	42	42	379	63
RTOR Reduction (vph)	0	5	0	0	1	0	0	32	0	0	14	0
Lane Group Flow (vph)	0	806	0	0	1673	0	21	115	0	42	428	0
Confl. Peds. (#/hr)	100		29	29		100	24		33	33		24
Confl. Bikes (#/hr)			3			2			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)								8	8			
Turn Type		NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases				6			8			4		
Actuated Green, G (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Effective Green, g (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Actuated g/C Ratio		0.60			0.67		0.23	0.23		0.23	0.23	
Clearance Time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		5.0			5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1840			1232		131	637		243	707	
v/s Ratio Prot		0.26			c0.06			0.04			c0.14	
v/s Ratio Perm					c0.85		0.04			0.04		
v/c Ratio		0.44			1.36		0.16	0.18		0.17	0.61	
Uniform Delay, d1		11.1			16.4		30.6	30.8		30.7	34.3	
Progression Factor		1.00			0.49		1.00	1.00		0.43	0.39	
Incremental Delay, d2		0.8			163.4		0.6	0.1		0.2	0.9	
Delay (s)		11.9			171.4		31.2	30.9		13.4	14.1	
Level of Service		B			F		C	C		B	B	
Approach Delay (s)		11.9			171.4			31.0			14.1	
Approach LOS		B			F			C			B	

Intersection Summary			
HCM 2000 Control Delay	98.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	123.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	640	80	140	1450	30	50	400	80	0	550	80
Future Volume (veh/h)	80	640	80	140	1450	30	50	400	80	0	550	80
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	0.99		0.96	0.99		0.91	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1660	1660	1660	1367	1367	1367	1660	1660	1660	0	1660	1660
Adj Flow Rate, veh/h	84	674	75	147	1526	31	53	421	21	0	579	73
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, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	72	2212	241	72	2018	39	121	817	333	0	721	91
Arrive On Green	0.77	0.77	0.77	1.00	1.00	1.00	0.26	0.26	0.26	0.00	0.26	0.26
Sat Flow, veh/h	327	2847	316	578	2601	53	763	3154	1285	0	2868	350
Grp Volume(v), veh/h	84	373	376	147	761	796	53	421	21	0	327	325
Grp Sat Flow(s),veh/h/ln	327	1577	1586	578	1299	1355	763	1577	1285	0	1577	1558
Q Serve(g_s), s	7.9	7.0	7.0	3.7	0.0	0.0	6.4	11.4	1.2	0.0	19.4	19.5
Cycle Q Clear(g_c), s	8.3	7.0	7.0	11.4	0.0	0.0	25.9	11.4	1.2	0.0	19.4	19.5
Prop In Lane	1.00		0.20	1.00		0.04	1.00		1.00	0.00		0.22
Lane Grp Cap(c), veh/h	72	1222	1230	72	1007	1050	121	817	333	0	408	404
V/C Ratio(X)	1.16	0.31	0.31	2.04	0.76	0.76	0.44	0.52	0.06	0.00	0.80	0.81
Avail Cap(c_a), veh/h	324	1222	1229	476	1007	1050	121	817	333	0	408	404
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.40	0.40	0.40	0.91	0.91	0.91	0.00	0.09	0.09
Uniform Delay (d), s/veh	50.0	3.5	3.5	38.7	0.0	0.0	47.1	31.7	27.9	0.0	34.6	34.7
Incr Delay (d2), s/veh	157.0	0.6	0.6	485.9	2.2	2.1	2.3	0.5	0.1	0.0	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.2	0.2	0.0	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	2.5	2.5	11.5	0.8	0.8	1.4	4.4	0.4	0.0	7.5	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	207.0	4.3	4.3	524.7	2.9	2.8	49.4	32.2	28.0	0.0	35.7	35.8
LnGrp LOS	F	A	A	F	A	A	D	C	C	A	D	D
Approach Vol, veh/h		833			1704			495			652	
Approach Delay, s/veh		24.8			47.9			33.9			35.8	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	83.0	31.0	83.0	31.0
Change Period (Y+Rc), s	5.1	* 5.1	5.1	5.1
Max Green Setting (Gmax), s	64.3	* 26	64.3	25.5
Max Q Clear Time (g_c+I1), s	10.3	27.9	13.4	21.5
Green Ext Time (p_c), s	17.1	0.0	38.7	1.5

Intersection Summary	
HCM 6th Ctrl Delay	38.6
HCM 6th LOS	D

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	560	80	80	1430	120	30	80	40	220	290	90
Future Volume (veh/h)	0	560	80	80	1430	120	30	80	40	220	290	90
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	0.99		0.97	0.95		0.92	0.94		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1660	1660	1367	1367	1367	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	0	566	72	81	1444	95	30	81	40	222	293	75
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	0	1628	200	72	1501	647	287	463	207	407	1022	430
Arrive On Green	0.00	1.00	1.00	0.58	0.58	0.58	0.23	0.23	0.23	0.07	0.32	0.32
Sat Flow, veh/h	0	2888	356	641	2598	1120	957	2055	921	1581	3154	1328
Grp Volume(v), veh/h	0	318	320	81	1444	95	30	60	61	222	293	75
Grp Sat Flow(s),veh/h/ln	0	1577	1583	641	1299	1120	957	1577	1398	1581	1577	1328
Q Serve(g_s), s	0.0	0.0	0.0	6.1	52.8	3.9	2.5	3.1	3.5	6.9	6.9	4.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	6.1	52.8	3.9	2.5	3.1	3.5	6.9	6.9	4.0
Prop In Lane	0.00		0.22	1.00		1.00	1.00		0.66	1.00		1.00
Lane Grp Cap(c), veh/h	0	912	916	72	1501	647	287	355	315	407	1022	430
V/C Ratio(X)	0.00	0.35	0.35	1.12	0.96	0.15	0.10	0.17	0.19	0.55	0.29	0.17
Avail Cap(c_a), veh/h	0	912	915	442	1501	647	340	442	392	407	1196	503
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	50.0	20.8	9.7	31.0	31.2	31.4	29.6	25.2	24.2
Incr Delay (d2), s/veh	0.0	1.0	1.0	144.1	15.8	0.5	0.2	0.2	0.3	0.9	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.3	0.3	0.0	8.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.3	4.7	20.8	1.0	0.6	1.2	1.2	1.8	2.6	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	1.3	1.3	194.1	44.9	10.2	31.2	31.4	31.7	30.4	25.3	24.4
LnGrp LOS	A	A	A	F	D	B	C	C	C	C	C	C
Approach Vol, veh/h		638			1620			151			590	
Approach Delay, s/veh		1.3			50.3			31.5			27.1	
Approach LOS		A			D			C			C	

Timer - Assigned Phs		2		4		6	7	8
Phs Duration (G+Y+Rc), s		62.9		37.1		62.9	9.9	27.2
Change Period (Y+Rc), s		5.1		* 4.7		5.1	3.0	* 4.7
Max Green Setting (Gmax), s		52.3		* 38		52.3	6.9	* 28
Max Q Clear Time (g_c+I1), s		2.0		8.9		54.8	8.9	5.5
Green Ext Time (p_c), s		10.0		2.4		0.0	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	34.4
HCM 6th LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	70	350	70	100	520	0	0	590	150
Future Volume (veh/h)	0	0	0	70	350	70	100	520	0	0	590	150
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.91	0.99		1.00	1.00		0.96
Parking Bus, Adj				0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	0.81
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1660	1660	1660	1660	1660	0	0	1660	1660
Adj Flow Rate, veh/h				75	376	52	108	559	0	0	634	126
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				124	646	93	381	1715	0	0	1278	253
Arrive On Green				0.32	0.32	0.32	0.54	0.54	0.00	0.00	0.54	0.54
Sat Flow, veh/h				387	2023	292	696	3237	0	0	2434	466
Grp Volume(v), veh/h				268	0	235	108	559	0	0	425	335
Grp Sat Flow(s),veh/h/ln				1384	0	1318	696	1577	0	0	1577	1240
Q Serve(g_s), s				9.8	0.0	8.9	6.9	5.9	0.0	0.0	10.1	10.1
Cycle Q Clear(g_c), s				9.8	0.0	8.9	17.0	5.9	0.0	0.0	10.1	10.1
Prop In Lane				0.28		0.22	1.00		0.00	0.00		0.38
Lane Grp Cap(c), veh/h				442	0	421	381	1715	0	0	858	674
V/C Ratio(X)				0.61	0.00	0.56	0.28	0.33	0.00	0.00	0.50	0.50
Avail Cap(c_a), veh/h				595	0	567	381	1715	0	0	858	674
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.49	0.49
Uniform Delay (d), s/veh				17.2	0.0	16.9	13.9	7.6	0.0	0.0	8.5	8.6
Incr Delay (d2), s/veh				1.3	0.0	1.2	1.9	0.5	0.0	0.0	1.0	1.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.1	0.0	2.6	1.2	1.8	0.0	0.0	3.1	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				18.6	0.0	18.1	15.7	8.1	0.0	0.0	9.5	9.8
LnGrp LOS				B	A	B	B	A	A	A	A	A
Approach Vol, veh/h					503			667			760	
Approach Delay, s/veh					18.3			9.3			9.7	
Approach LOS					B			A			A	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		36.8				36.8		23.2				
Change Period (Y+Rc), s		* 4.2				* 4.2		4.0				
Max Green Setting (Gmax), s		* 26				* 26		25.8				
Max Q Clear Time (g_c+I1), s		19.0				12.1		11.8				
Green Ext Time (p_c), s		3.8				7.0		2.7				

Intersection Summary	
HCM 6th Ctrl Delay	11.8
HCM 6th LOS	B

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	50	350	40	30	90	0	10	250	190
Future Volume (vph)	0	0	0	50	350	40	30	90	0	10	250	190
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)					3.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			0.99	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.99		1.00	1.00			0.94	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					2873		1568	2885			2692	
Flt Permitted					0.99		0.25	1.00			0.95	
Satd. Flow (perm)					2873		413	2885			2556	
Peak-hour factor, PHF	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Adj. Flow (vph)	0	0	0	71	500	57	43	129	0	14	357	271
RTOR Reduction (vph)	0	0	0	0	10	0	0	0	0	0	188	0
Lane Group Flow (vph)	0	0	0	0	618	0	43	129	0	0	454	0
Confl. Bikes (#/hr)			1			1			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)				6	6	4		12			11	11
Turn Type				Perm	NA		Perm	NA		Perm	NA	
Protected Phases					6			8			4	
Permitted Phases				6			8			4		
Actuated Green, G (s)					23.0		16.0	16.0			16.0	
Effective Green, g (s)					23.0		16.0	16.0			16.0	
Actuated g/C Ratio					0.33		0.23	0.23			0.23	
Clearance Time (s)					3.0		4.0	4.0			4.0	
Vehicle Extension (s)					2.0		2.0	2.0			2.0	
Lane Grp Cap (vph)					943		94	659			584	
v/s Ratio Prot								0.04				
v/s Ratio Perm					0.22		0.10				c0.18	
v/c Ratio					0.66		0.46	0.20			0.78	
Uniform Delay, d1					20.1		23.3	21.8			25.3	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					3.5		15.2	0.7			9.8	
Delay (s)					23.7		38.5	22.5			35.1	
Level of Service					C		D	C			D	
Approach Delay (s)		0.0			23.7			26.5			35.1	
Approach LOS		A			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	29.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	47.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	330	0	0	0	0	0	0	110
Future Vol, veh/h	0	0	0	0	330	0	0	0	0	0	0	110
Conflicting Peds, #/hr	0	0	0	79	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	402	0	0	0	0	0	0	134

Major/Minor	Major2			Minor2		
Conflicting Flow All	79	0	0	-	481	201
Stage 1	-	-	-	-	402	-
Stage 2	-	-	-	-	79	-
Critical Hdwy	4.16	-	-	-	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.23	-	-	-	4.03	3.33
Pot Cap-1 Maneuver	1510	-	0	0	481	803
Stage 1	-	-	0	0	596	-
Stage 2	-	-	0	0	-	-
Platoon blocked, %		-				
Mov Cap-1 Maneuver	1510	-	-	-	0	803
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

Approach	WB	SB
HCM Control Delay, s	0	10.4
HCM LOS		B

Minor Lane/Major Mvmt	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	1510	-	-	803
HCM Lane V/C Ratio	-	-	-	0.167
HCM Control Delay (s)	0	-	0	10.4
HCM Lane LOS	A	-	A	B
HCM 95th %tile Q(veh)	0	-	-	0.6

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	710	62	48	1580	0	0
Future Vol, veh/h	710	62	48	1580	0	0
Conflicting Peds, #/hr	0	31	31	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	755	66	51	1681	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	852	0	-	442
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.16	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.23	-	-	3.33
Pot Cap-1 Maneuver	-	-	776	-	0	560
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	753	-	-	543
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	753	-
HCM Lane V/C Ratio	-	-	-	0.068	-
HCM Control Delay (s)	0	-	-	10.1	-
HCM Lane LOS	A	-	-	B	-
HCM 95th %tile Q(veh)	-	-	-	0.2	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1840	50	80	1690	60	0	240	60	40	170	50
Future Volume (veh/h)	40	1840	50	80	1690	60	0	240	60	40	170	50
Initial Q (Qb), veh	0	15	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.97	0.99		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	0	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	44	2044	54	89	1878	64	0	267	58	44	189	37
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, %	3	3	3	3	3	3	0	3	3	3	3	3
Cap, veh/h	72	1747	26	72	1742	31	0	601	128	220	737	294
Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.67	0.00	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	186	2584	68	160	2561	87	0	2656	548	1032	3154	1257
Grp Volume(v), veh/h	44	1022	1076	89	946	996	0	162	163	44	189	37
Grp Sat Flow(s),veh/h/ln	186	1299	1353	160	1299	1349	0	1577	1544	1032	1577	1257
Q Serve(g_s), s	0.0	66.7	66.7	0.0	66.7	66.7	0.0	8.8	9.1	3.8	4.9	2.3
Cycle Q Clear(g_c), s	66.7	66.7	66.7	66.7	66.7	66.7	0.0	8.8	9.1	12.9	4.9	2.3
Prop In Lane	1.00		0.05	1.00		0.06	0.00		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	72	867	907	72	867	906	0	369	361	220	737	294
V/C Ratio(X)	0.61	1.18	1.19	1.24	1.09	1.10	0.00	0.44	0.45	0.20	0.26	0.13
Avail Cap(c_a), veh/h	72	867	903	72	867	900	0	420	411	253	839	334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	0.00	0.80	0.80	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	16.6	16.6	50.0	16.6	16.6	0.0	32.7	32.8	38.4	31.2	30.3
Incr Delay (d2), s/veh	33.0	92.6	95.1	117.0	43.3	46.6	0.0	0.7	0.7	0.4	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	31.2	29.8	0.0	20.8	19.9	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	45.8	48.2	4.1	31.4	33.4	0.0	3.4	3.5	1.0	1.9	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.0	140.4	141.5	167.0	80.8	83.2	0.0	33.4	33.5	38.8	31.4	30.4
LnGrp LOS	F	F	F	F	F	F	A	C	C	D	C	C
Approach Vol, veh/h		2142			2031			325			270	
Approach Delay, s/veh		139.7			85.7			33.5			32.5	
Approach LOS		F			F			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		72.1		27.9		72.1		27.9				
Change Period (Y+Rc), s		5.4		4.5		5.4		4.5				
Max Green Setting (Gmax), s		63.5		26.6		63.5		26.6				
Max Q Clear Time (g_c+I1), s		68.7		14.9		68.7		11.1				
Green Ext Time (p_c), s		0.0		1.2		0.0		1.7				

Intersection Summary			
HCM 6th Ctrl Delay			103.4
HCM 6th LOS			F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	1680	40	90	1660	50	70	440	170	40	370	70
Future Volume (veh/h)	50	1680	40	90	1660	50	70	440	170	40	370	70
Initial Q (Qb), veh	0	15	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	0.99		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	56	1867	43	100	1844	54	78	489	176	44	411	65
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	72	1654	20	72	1649	25	189	593	212	132	714	112
Arrive On Green	0.63	0.63	0.63	0.63	0.63	0.63	0.52	0.52	0.52	0.26	0.26	0.26
Sat Flow, veh/h	194	2594	59	192	2576	75	902	2258	807	761	2719	426
Grp Volume(v), veh/h	56	931	979	100	925	973	78	341	324	44	237	239
Grp Sat Flow(s),veh/h/ln	194	1299	1354	192	1299	1352	902	1577	1487	761	1577	1569
Q Serve(g_s), s	0.0	63.0	63.0	0.0	63.0	63.0	7.7	18.1	18.4	5.7	13.0	13.3
Cycle Q Clear(g_c), s	63.0	63.0	63.0	63.0	63.0	63.0	21.0	18.1	18.4	24.0	13.0	13.3
Prop In Lane	1.00		0.04	1.00		0.06	1.00		0.54	1.00		0.27
Lane Grp Cap(c), veh/h	72	818	856	72	818	856	189	414	390	132	414	412
V/C Ratio(X)	0.78	1.14	1.14	1.39	1.13	1.14	0.41	0.82	0.83	0.33	0.57	0.58
Avail Cap(c_a), veh/h	72	818	853	72	818	851	192	420	396	134	420	417
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.62	0.62	0.62	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	18.5	18.5	50.0	18.5	18.5	28.4	21.8	21.9	45.1	32.0	32.1
Incr Delay (d2), s/veh	7.3	63.9	65.9	240.1	74.2	75.8	0.9	8.0	9.0	1.5	1.8	2.0
Initial Q Delay(d3),s/veh	0.0	33.0	31.5	0.0	22.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	37.9	39.8	6.6	37.7	39.6	1.5	5.6	5.5	1.1	5.2	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.3	115.4	116.0	290.1	114.8	115.3	29.3	29.8	30.9	46.5	33.8	34.1
LnGrp LOS	E	F	F	F	F	F	C	C	C	D	C	C
Approach Vol, veh/h		1966			1998			743			520	
Approach Delay, s/veh		114.0			123.8			30.3			35.0	
Approach LOS		F			F			C			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		68.4		31.6		68.4		31.6				
Change Period (Y+Rc), s		5.4		5.4		5.4		5.4				
Max Green Setting (Gmax), s		62.6		26.6		62.6		26.6				
Max Q Clear Time (g_c+I1), s		65.0		26.0		65.0		23.0				
Green Ext Time (p_c), s		0.0		0.2		0.0		1.6				
Intersection Summary												
HCM 6th Ctrl Delay			98.0									
HCM 6th LOS			F									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1420	100	100	830	50	50	250	90	50	200	60
Future Volume (vph)	0	1420	100	100	830	50	50	250	90	50	200	60
Ideal Flow (vphpl)	1400	1400	1400	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		0.98			0.98		1.00	0.92		1.00	0.93	
Flpb, ped/bikes		1.00			1.00		0.80	1.00		0.85	1.00	
Frt		0.99			0.99		1.00	0.96		1.00	0.97	
Flt Protected		1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		2514			3038		1248	2587		1327	2805	
Flt Permitted		1.00			0.55		0.53	1.00		0.43	1.00	
Satd. Flow (perm)		2514			1664		694	2587		606	2805	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1495	105	105	874	53	53	263	95	53	211	63
RTOR Reduction (vph)	0	5	0	0	4	0	0	37	0	0	26	0
Lane Group Flow (vph)	0	1595	0	0	1028	0	53	321	0	53	248	0
Confl. Peds. (#/hr)	423		174	174		423	282		215	215		282
Confl. Bikes (#/hr)			6			1			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)								8	8			
Turn Type		NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases				6			8			4		
Actuated Green, G (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Effective Green, g (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Actuated g/C Ratio		0.60			0.67		0.23	0.23		0.23	0.23	
Clearance Time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		5.0			5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1495			1180		161	600		140	650	
v/s Ratio Prot		c0.63			c0.04			c0.12			0.09	
v/s Ratio Perm					0.55		0.08			0.09		
v/c Ratio		1.07			0.87		0.33	0.54		0.38	0.38	
Uniform Delay, d1		20.2			13.0		31.9	33.7		32.3	32.4	
Progression Factor		1.00			0.96		1.00	1.00		0.58	0.52	
Incremental Delay, d2		43.4			6.3		1.2	0.9		1.0	0.2	
Delay (s)		63.7			18.8		33.1	34.6		19.9	16.9	
Level of Service		E			B		C	C		B	B	
Approach Delay (s)		63.7			18.8			34.4			17.4	
Approach LOS		E			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	41.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	128.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	1290	140	100	830	50	80	530	170	0	450	70
Future Volume (veh/h)	130	1290	140	100	830	50	80	530	170	0	450	70
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.90	1.00		0.90	0.95		0.82	1.00		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1660	1660	1660	1660	1660	1660	0	1660	1660
Adj Flow Rate, veh/h	137	1358	140	105	874	49	84	558	158	0	474	61
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, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	73	1834	178	72	2341	129	156	817	299	0	710	90
Arrive On Green	0.77	0.77	0.77	1.00	1.00	1.00	0.26	0.26	0.26	0.00	0.26	0.26
Sat Flow, veh/h	483	2352	240	348	3017	169	824	3154	1156	0	2824	349
Grp Volume(v), veh/h	137	745	753	105	457	466	84	558	158	0	271	264
Grp Sat Flow(s),veh/h/ln	483	1299	1293	348	1577	1609	824	1577	1156	0	1577	1513
Q Serve(g_s), s	9.1	30.2	31.4	21.0	0.0	0.0	10.2	15.9	11.7	0.0	15.3	15.7
Cycle Q Clear(g_c), s	9.5	30.2	31.4	53.9	0.0	0.0	25.9	15.9	11.7	0.0	15.3	15.7
Prop In Lane	1.00		0.19	1.00		0.11	1.00		1.00	0.00		0.23
Lane Grp Cap(c), veh/h	73	1007	1005	72	1222	1247	156	817	299	0	408	392
V/C Ratio(X)	1.89	0.74	0.75	1.46	0.37	0.37	0.54	0.68	0.53	0.00	0.66	0.67
Avail Cap(c_a), veh/h	445	1007	1002	227	1222	1247	156	817	299	0	408	392
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.86	0.86	0.86	0.94	0.94	0.94	0.00	0.46	0.46
Uniform Delay (d), s/veh	50.0	6.3	6.4	38.7	0.0	0.0	44.9	33.4	31.8	0.0	33.1	33.3
Incr Delay (d2), s/veh	445.8	4.9	5.1	259.1	0.8	0.7	3.4	2.2	1.6	0.0	1.9	2.1
Initial Q Delay(d3),s/veh	0.0	0.7	0.7	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	8.6	8.9	6.9	0.3	0.3	2.2	6.3	3.4	0.0	6.1	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	495.8	11.9	12.3	297.9	0.9	0.9	48.3	35.6	33.4	0.0	35.0	35.4
LnGrp LOS	F	B	B	F	A	A	D	D	C	A	C	D
Approach Vol, veh/h		1635			1028			800			535	
Approach Delay, s/veh		52.6			31.3			36.5			35.2	
Approach LOS		D			C			D			D	

Timer - Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		83.0		31.0		83.0		31.0
Change Period (Y+Rc), s		5.1		* 5.1		5.1		5.1
Max Green Setting (Gmax), s		64.3		* 26		64.3		25.5
Max Q Clear Time (g_c+I1), s		33.4		27.9		55.9		17.7
Green Ext Time (p_c), s		25.4		0.0		6.3		2.1

Intersection Summary	
HCM 6th Ctrl Delay	41.6
HCM 6th LOS	D

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1210	120	80	940	280	50	250	90	200	200	40
Future Volume (veh/h)	0	1210	120	80	940	280	50	250	90	200	200	40
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	0.99		0.95	0.92		0.89	0.95		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1367	1367	1660	1660	1660	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	0	1247	117	82	969	191	52	258	93	206	206	13
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	0	1365	95	72	1739	738	339	559	193	326	1107	454
Arrive On Green	0.00	1.00	1.00	0.55	0.55	0.55	0.25	0.25	0.25	0.07	0.35	0.35
Sat Flow, veh/h	0	2457	223	393	3154	1339	1059	2221	766	1581	3154	1295
Grp Volume(v), veh/h	0	676	688	82	969	191	52	180	171	206	206	13
Grp Sat Flow(s),veh/h/ln	0	1299	1313	393	1577	1339	1059	1577	1410	1581	1577	1295
Q Serve(g_s), s	0.0	0.0	0.0	11.8	19.9	7.5	3.9	9.6	10.3	6.9	4.5	0.7
Cycle Q Clear(g_c), s	0.0	0.0	0.0	11.8	19.9	7.5	3.9	9.6	10.3	6.9	4.5	0.7
Prop In Lane	0.00		0.17	1.00		1.00	1.00		0.54	1.00		1.00
Lane Grp Cap(c), veh/h	0	716	731	72	1739	738	339	397	355	326	1107	454
V/C Ratio(X)	0.00	0.94	0.94	1.14	0.56	0.26	0.15	0.45	0.48	0.63	0.19	0.03
Avail Cap(c_a), veh/h	0	716	724	289	1739	738	368	442	395	326	1196	491
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.36	0.36	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	50.0	14.9	11.7	29.4	31.6	31.9	29.3	22.5	21.3
Incr Delay (d2), s/veh	0.0	10.7	10.3	148.7	1.3	0.8	0.2	0.8	1.0	3.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	6.3	5.8	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.4	3.3	4.8	7.9	2.4	1.0	3.8	3.6	1.9	1.7	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.1	16.0	198.7	16.8	12.6	29.6	32.4	32.9	32.3	22.6	21.3
LnGrp LOS	A	B	B	F	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1364			1242			403			425	
Approach Delay, s/veh		16.5			28.1			32.2			27.3	
Approach LOS		B			C			C			C	

Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		60.2		39.8		60.2	9.9	29.9				
Change Period (Y+Rc), s		5.1		* 4.7		5.1	3.0	* 4.7				
Max Green Setting (Gmax), s		52.3		* 38		52.3	6.9	* 28				
Max Q Clear Time (g_c+I1), s		2.0		6.5		21.9	8.9	12.3				
Green Ext Time (p_c), s		29.6		1.5		19.0	0.0	2.2				

Intersection Summary			
HCM 6th Ctrl Delay			23.9
HCM 6th LOS			C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	110	170	70	140	450	0	0	530	100
Future Volume (veh/h)	0	0	0	110	170	70	140	450	0	0	530	100
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.79	0.94		1.00	1.00		0.77
Parking Bus, Adj				0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	0.81
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1660	1660	1660	1660	1660	0	0	1660	1660
Adj Flow Rate, veh/h				116	179	54	147	474	0	0	558	80
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				311	493	151	367	1548	0	0	1178	167
Arrive On Green				0.37	0.37	0.37	0.49	0.49	0.00	0.00	0.49	0.49
Sat Flow, veh/h				834	1323	406	739	3237	0	0	2484	341
Grp Volume(v), veh/h				189	0	160	147	474	0	0	365	273
Grp Sat Flow(s),veh/h/ln				1361	0	1202	739	1577	0	0	1577	1164
Q Serve(g_s), s				6.1	0.0	5.8	9.9	5.4	0.0	0.0	9.2	9.4
Cycle Q Clear(g_c), s				6.1	0.0	5.8	19.3	5.4	0.0	0.0	9.2	9.4
Prop In Lane				0.61		0.34	1.00		0.00	0.00		0.29
Lane Grp Cap(c), veh/h				507	0	448	367	1548	0	0	774	571
V/C Ratio(X)				0.37	0.00	0.36	0.40	0.31	0.00	0.00	0.47	0.48
Avail Cap(c_a), veh/h				585	0	517	367	1548	0	0	774	571
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.53	0.53
Uniform Delay (d), s/veh				13.7	0.0	13.6	16.6	9.2	0.0	0.0	10.1	10.2
Incr Delay (d2), s/veh				0.5	0.0	0.5	3.2	0.5	0.0	0.0	1.1	1.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.8	0.0	1.5	1.9	1.7	0.0	0.0	3.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				14.2	0.0	14.1	19.8	9.7	0.0	0.0	11.2	11.7
LnGrp LOS				B	A	B	B	A	A	A	B	B
Approach Vol, veh/h					349			621			638	
Approach Delay, s/veh					14.1			12.1			11.4	
Approach LOS					B			B			B	

Timer - Assigned Phs	2	6	8
Phs Duration (G+Y+Rc), s	33.6	33.6	26.4
Change Period (Y+Rc), s	* 4.2	* 4.2	4.0
Max Green Setting (Gmax), s	* 26	* 26	25.8
Max Q Clear Time (g_c+I1), s	21.3	11.4	8.1
Green Ext Time (p_c), s	2.5	6.1	2.1

Intersection Summary	
HCM 6th Ctrl Delay	12.3
HCM 6th LOS	B

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	80	200	140	70	310	0	0	390	130
Future Volume (vph)	0	0	0	80	200	140	70	310	0	0	390	130
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)					3.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			1.00	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.95		1.00	1.00			0.96	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					2748		1568	2885			2775	
Flt Permitted					0.99		0.27	1.00			1.00	
Satd. Flow (perm)					2748		447	2885			2775	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	84	211	147	74	326	0	0	411	137
RTOR Reduction (vph)	0	0	0	0	85	0	0	0	0	0	46	0
Lane Group Flow (vph)	0	0	0	0	357	0	74	326	0	0	502	0
Confl. Bikes (#/hr)			1			1			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)				6	6	4		12			11	11
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					6			8			4	
Permitted Phases				6			8					
Actuated Green, G (s)					23.0		16.0	16.0			16.0	
Effective Green, g (s)					23.0		16.0	16.0			16.0	
Actuated g/C Ratio					0.33		0.23	0.23			0.23	
Clearance Time (s)					3.0		4.0	4.0			4.0	
Vehicle Extension (s)					2.0		2.0	2.0			2.0	
Lane Grp Cap (vph)					902		102	659			634	
v/s Ratio Prot								0.11			c0.18	
v/s Ratio Perm					0.13		0.17					
v/c Ratio					0.40		0.73	0.49			0.79	
Uniform Delay, d1					18.1		25.0	23.5			25.4	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					1.3		36.1	2.6			9.8	
Delay (s)					19.4		61.1	26.1			35.2	
Level of Service					B		E	C			D	
Approach Delay (s)		0.0			19.4			32.6			35.2	
Approach LOS		A			B			C			D	

Intersection Summary			
HCM 2000 Control Delay	29.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	48.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	380	0	0	0	0	0	0	48
Future Vol, veh/h	0	0	0	0	380	0	0	0	0	0	0	48
Conflicting Peds, #/hr	0	0	0	251	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	400	0	0	0	0	0	0	51

Major/Minor	Major2			Minor2		
Conflicting Flow All	251	0	0	-	651	200
Stage 1	-	-	-	-	400	-
Stage 2	-	-	-	-	251	-
Critical Hdwy	4.16	-	-	-	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.23	-	-	-	4.03	3.33
Pot Cap-1 Maneuver	1304	-	0	0	384	804
Stage 1	-	-	0	0	597	-
Stage 2	-	-	0	0	-	-
Platoon blocked, %		-				
Mov Cap-1 Maneuver	1304	-	-	-	0	804
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

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

Minor Lane/Major Mvmt	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	1304	-	-	804
HCM Lane V/C Ratio	-	-	-	0.063
HCM Control Delay (s)	0	-	0	9.8
HCM Lane LOS	A	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.2

Intersection						
Int Delay, s/veh	0.1					

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1430	35	13	970	0	0
Future Vol, veh/h	1430	35	13	970	0	0
Conflicting Peds, #/hr	0	100	100	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1490	36	14	1010	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1626	0	-	863
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.16	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.23	-	-	3.33
Pot Cap-1 Maneuver	-	-	391	-	0	296
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	354	-	-	268
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	354	-
HCM Lane V/C Ratio	-	-	-	0.038	-
HCM Control Delay (s)	0	-	-	15.6	-
HCM Lane LOS	A	-	-	C	-
HCM 95th %tile Q(veh)	-	-	-	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1591	34	90	1759	31	0	80	31	30	321	50
Future Volume (veh/h)	30	1591	34	90	1759	31	0	80	31	30	321	50
Initial Q (Qb), veh	0	10	0	0	15	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	0	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	33	1768	37	100	1954	33	0	89	18	33	357	37
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, %	3	3	3	3	3	3	0	3	3	3	3	3
Cap, veh/h	72	1900	33	72	1919	18	0	453	89	253	546	239
Arrive On Green	0.73	0.73	0.73	0.73	0.73	0.73	0.00	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	178	2600	54	213	2614	44	0	2700	513	1264	3154	1380
Grp Volume(v), veh/h	33	880	925	100	968	1019	0	53	54	33	357	37
Grp Sat Flow(s),veh/h/ln	178	1299	1356	213	1299	1359	0	1577	1552	1264	1577	1380
Q Serve(g_s), s	0.0	57.3	58.4	14.4	72.8	72.8	0.0	2.8	3.0	2.3	10.6	2.3
Cycle Q Clear(g_c), s	72.8	57.3	58.4	72.8	72.8	72.8	0.0	2.8	3.0	5.3	10.6	2.3
Prop In Lane	1.00		0.04	1.00		0.03	0.00		0.33	1.00		1.00
Lane Grp Cap(c), veh/h	72	945	988	72	945	992	0	273	269	253	546	239
V/C Ratio(X)	0.46	0.93	0.94	1.39	1.02	1.03	0.00	0.19	0.20	0.13	0.65	0.15
Avail Cap(c_a), veh/h	72	945	987	103	945	989	0	420	413	370	839	367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	0.00	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	12.1	12.2	50.0	13.6	13.6	0.0	35.4	35.4	37.7	38.5	35.1
Incr Delay (d2), s/veh	19.6	16.7	16.8	182.7	15.8	16.9	0.0	0.3	0.4	0.2	1.3	0.3
Initial Q Delay(d3),s/veh	0.0	2.9	2.9	0.0	28.6	27.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	18.4	19.4	5.4	27.2	28.4	0.0	1.1	1.2	0.7	4.2	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.6	31.8	31.9	232.7	58.0	57.7	0.0	35.7	35.8	37.9	39.9	35.4
LnGrp LOS	E	C	C	F	F	F	A	D	D	D	D	D
Approach Vol, veh/h		1838			2087			107			427	
Approach Delay, s/veh		32.6			66.2			35.7			39.3	
Approach LOS		C			E			D			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		78.2		21.8		78.2		21.8				
Change Period (Y+Rc), s		5.4		4.5		5.4		4.5				
Max Green Setting (Gmax), s		63.5		26.6		63.5		26.6				
Max Q Clear Time (g_c+I1), s		74.8		12.6		74.8		5.0				
Green Ext Time (p_c), s		0.0		2.2		0.0		0.5				
Intersection Summary												
HCM 6th Ctrl Delay			49.0									
HCM 6th LOS			D									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1770	31	105	1530	40	30	363	154	40	504	60
Future Volume (veh/h)	40	1770	31	105	1530	40	30	363	154	40	504	60
Initial Q (Qb), veh	0	10	0	0	15	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	44	1967	33	117	1700	42	33	403	161	44	560	58
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	72	1692	15	72	1687	20	127	548	216	157	721	74
Arrive On Green	0.64	0.64	0.64	0.64	0.64	0.64	0.50	0.50	0.50	0.25	0.25	0.25
Sat Flow, veh/h	226	2614	44	176	2589	64	795	2188	861	835	2880	297
Grp Volume(v), veh/h	44	974	1026	117	850	892	33	289	275	44	306	312
Grp Sat Flow(s),veh/h/ln	226	1299	1358	176	1299	1353	795	1577	1472	835	1577	1600
Q Serve(g_s), s	0.0	64.2	64.2	0.0	64.2	64.2	3.9	14.4	14.9	5.0	18.0	18.2
Cycle Q Clear(g_c), s	64.2	64.2	64.2	64.2	64.2	64.2	22.1	14.4	14.9	19.9	18.0	18.2
Prop In Lane	1.00		0.03	1.00		0.05	1.00		0.59	1.00		0.19
Lane Grp Cap(c), veh/h	72	833	874	72	833	873	127	395	368	157	395	400
V/C Ratio(X)	0.61	1.17	1.17	1.62	1.02	1.02	0.26	0.73	0.75	0.28	0.78	0.78
Avail Cap(c_a), veh/h	72	833	872	72	833	868	139	420	392	170	420	426
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.77	0.77	0.77	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	17.9	17.9	50.0	17.9	17.9	32.8	22.3	22.4	42.6	34.9	34.9
Incr Delay (d2), s/veh	3.5	77.4	79.2	335.7	36.4	35.9	0.8	4.7	5.6	1.0	8.4	8.5
Initial Q Delay(d3),s/veh	0.0	21.6	20.6	0.0	32.4	30.9	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	38.9	41.0	8.5	31.9	32.9	0.7	4.5	4.4	1.1	7.8	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.5	116.9	117.7	385.7	86.7	84.8	33.6	27.0	28.1	43.6	43.2	43.4
LnGrp LOS	D	F	F	F	F	F	C	C	C	D	D	D
Approach Vol, veh/h		2044			1859			597			662	
Approach Delay, s/veh		115.9			104.6			27.9			43.3	
Approach LOS		F			F			C			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		69.6		30.4		69.6		30.4				
Change Period (Y+Rc), s		5.4		5.4		5.4		5.4				
Max Green Setting (Gmax), s		62.6		26.6		62.6		26.6				
Max Q Clear Time (g_c+I1), s		66.2		21.9		66.2		24.1				
Green Ext Time (p_c), s		0.0		1.8		0.0		1.0				

Intersection Summary			
HCM 6th Ctrl Delay			92.4
HCM 6th LOS			F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	730	50	140	1420	30	21	101	48	45	360	60
Future Volume (vph)	0	730	50	140	1420	30	21	101	48	45	360	60
Ideal Flow (vphpl)	1700	1700	1700	1400	1400	1400	1700	1700	1700	1700	1700	1700
Total Lost time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	0.98		1.00	0.99	
Flpb, ped/bikes		1.00			1.00		0.99	1.00		0.97	1.00	
Frt		0.99			1.00		1.00	0.95		1.00	0.98	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3095			2555		1545	2725		1514	3050	
Flt Permitted		1.00			0.69		0.35	1.00		0.65	1.00	
Satd. Flow (perm)		3095			1775		567	2725		1040	3050	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	768	53	147	1495	32	22	106	51	47	379	63
RTOR Reduction (vph)	0	4	0	0	1	0	0	39	0	0	14	0
Lane Group Flow (vph)	0	817	0	0	1673	0	22	118	0	47	428	0
Confl. Peds. (#/hr)	100		29	29		100	24		33	33		24
Confl. Bikes (#/hr)			3			2			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)								8	8			
Turn Type		NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases				6			8			4		
Actuated Green, G (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Effective Green, g (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Actuated g/C Ratio		0.60			0.67		0.23	0.23		0.23	0.23	
Clearance Time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		5.0			5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1841			1227		131	632		241	707	
v/s Ratio Prot		0.26			c0.06			0.04			c0.14	
v/s Ratio Perm					c0.85		0.04			0.05		
v/c Ratio		0.44			1.36		0.17	0.19		0.20	0.61	
Uniform Delay, d1		11.1			16.4		30.7	30.8		30.9	34.3	
Progression Factor		1.00			0.50		1.00	1.00		0.43	0.39	
Incremental Delay, d2		0.8			166.2		0.6	0.1		0.2	0.9	
Delay (s)		11.9			174.4		31.3	31.0		13.5	14.3	
Level of Service		B			F		C	C		B	B	
Approach Delay (s)		11.9			174.4			31.0			14.3	
Approach LOS		B			F			C			B	

Intersection Summary			
HCM 2000 Control Delay	99.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	124.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	648	191	176	1424	30	44	400	80	0	553	87
Future Volume (veh/h)	96	648	191	176	1424	30	44	400	80	0	553	87
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	0.99		0.96	0.99		0.91	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1660	1660	1660	1367	1367	1367	1660	1660	1660	0	1660	1660
Adj Flow Rate, veh/h	101	682	192	185	1499	31	46	421	21	0	582	79
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, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	72	1875	514	72	2017	40	117	817	333	0	714	97
Arrive On Green	0.77	0.77	0.77	1.00	1.00	1.00	0.26	0.26	0.26	0.00	0.26	0.26
Sat Flow, veh/h	336	2402	676	515	2600	54	758	3154	1285	0	2839	373
Grp Volume(v), veh/h	101	448	426	185	748	782	46	421	21	0	332	329
Grp Sat Flow(s),veh/h/ln	336	1577	1501	515	1299	1355	758	1577	1285	0	1577	1551
Q Serve(g_s), s	9.8	8.9	8.9	8.3	0.0	0.0	6.0	11.4	1.2	0.0	19.8	19.9
Cycle Q Clear(g_c), s	10.2	8.9	8.9	18.0	0.0	0.0	25.9	11.4	1.2	0.0	19.8	19.9
Prop In Lane	1.00		0.45	1.00		0.04	1.00		1.00	0.00		0.24
Lane Grp Cap(c), veh/h	72	1222	1165	72	1007	1050	117	817	333	0	408	402
V/C Ratio(X)	1.40	0.37	0.37	2.57	0.74	0.74	0.39	0.52	0.06	0.00	0.81	0.82
Avail Cap(c_a), veh/h	331	1222	1163	422	1007	1050	117	817	333	0	408	402
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.40	0.40	0.40	1.00	1.00	1.00	0.00	0.09	0.09
Uniform Delay (d), s/veh	50.0	3.7	3.7	38.7	0.0	0.0	47.1	31.7	27.9	0.0	34.8	34.8
Incr Delay (d2), s/veh	244.1	0.8	0.9	720.4	2.0	2.0	2.1	0.6	0.1	0.0	1.2	1.3
Initial Q Delay(d3),s/veh	0.0	0.2	0.2	0.0	0.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	3.1	2.9	16.2	0.8	0.8	1.2	4.4	0.4	0.0	7.7	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	294.1	4.8	4.8	759.2	2.7	2.6	49.2	32.2	28.0	0.0	36.0	36.1
LnGrp LOS	F	A	A	F	A	A	D	C	C	A	D	D
Approach Vol, veh/h		975			1715			488			661	
Approach Delay, s/veh		34.8			84.3			33.7			36.0	
Approach LOS		C			F			C			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	83.0	31.0	83.0	31.0
Change Period (Y+Rc), s	5.1	* 5.1	5.1	5.1
Max Green Setting (Gmax), s	64.3	* 26	64.3	25.5
Max Q Clear Time (g_c+I1), s	12.2	27.9	20.0	21.9
Green Ext Time (p_c), s	21.2	0.0	35.2	1.4

Intersection Summary	
HCM 6th Ctrl Delay	57.0
HCM 6th LOS	E

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	566	82	80	1438	120	33	80	40	220	290	90
Future Volume (veh/h)	0	566	82	80	1438	120	33	80	40	220	290	90
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	0.99		0.97	0.95		0.92	0.94		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1660	1660	1367	1367	1367	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	0	572	74	81	1453	95	33	81	40	222	293	75
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	0	1624	203	72	1501	647	287	463	207	407	1022	430
Arrive On Green	0.00	1.00	1.00	0.58	0.58	0.58	0.23	0.23	0.23	0.07	0.32	0.32
Sat Flow, veh/h	0	2881	361	636	2598	1120	957	2055	921	1581	3154	1328
Grp Volume(v), veh/h	0	322	324	81	1453	95	33	60	61	222	293	75
Grp Sat Flow(s),veh/h/ln	0	1577	1582	636	1299	1120	957	1577	1398	1581	1577	1328
Q Serve(g_s), s	0.0	0.0	0.0	6.2	53.6	3.9	2.8	3.1	3.5	6.9	6.9	4.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	6.2	53.6	3.9	2.8	3.1	3.5	6.9	6.9	4.0
Prop In Lane	0.00		0.23	1.00		1.00	1.00		0.66	1.00		1.00
Lane Grp Cap(c), veh/h	0	911	915	72	1501	647	287	355	315	407	1022	430
V/C Ratio(X)	0.00	0.35	0.35	1.12	0.97	0.15	0.11	0.17	0.19	0.55	0.29	0.17
Avail Cap(c_a), veh/h	0	911	914	440	1501	647	340	442	392	407	1196	503
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.90	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	50.0	21.0	9.7	31.1	31.2	31.4	29.6	25.2	24.2
Incr Delay (d2), s/veh	0.0	1.0	1.0	144.1	16.7	0.5	0.2	0.2	0.3	0.9	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.3	0.3	0.0	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	0.3	4.7	21.5	1.0	0.7	1.2	1.2	1.8	2.6	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	1.3	1.3	194.1	47.6	10.2	31.3	31.4	31.7	30.4	25.3	24.4
LnGrp LOS	A	A	A	F	D	B	C	C	C	C	C	C
Approach Vol, veh/h		646			1629			154			590	
Approach Delay, s/veh		1.3			52.7			31.5			27.1	
Approach LOS		A			D			C			C	
Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		62.9		37.1		62.9	9.9	27.2				
Change Period (Y+Rc), s		5.1		* 4.7		5.1	3.0	* 4.7				
Max Green Setting (Gmax), s		52.3		* 38		52.3	6.9	* 28				
Max Q Clear Time (g_c+I1), s		2.0		8.9		55.6	8.9	5.5				
Green Ext Time (p_c), s		10.2		2.4		0.0	0.0	0.8				
Intersection Summary												
HCM 6th Ctrl Delay			35.6									
HCM 6th LOS			D									
Notes												

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	70	352	71	100	528	0	0	597	155
Future Volume (veh/h)	0	0	0	70	352	71	100	528	0	0	597	155
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.92	0.99		1.00	1.00		0.96
Parking Bus, Adj				0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	0.83
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1367	1367	1367	1660	1660	0	0	1660	1660
Adj Flow Rate, veh/h				75	378	52	108	568	0	0	642	130
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				107	565	81	360	1656	0	0	1243	251
Arrive On Green				0.34	0.34	0.34	0.53	0.53	0.00	0.00	0.53	0.53
Sat Flow, veh/h				318	1669	240	689	3237	0	0	2451	478
Grp Volume(v), veh/h				269	0	236	108	568	0	0	427	345
Grp Sat Flow(s),veh/h/ln				1139	0	1087	689	1577	0	0	1577	1269
Q Serve(g_s), s				12.3	0.0	11.0	7.3	6.3	0.0	0.0	10.6	10.6
Cycle Q Clear(g_c), s				12.3	0.0	11.0	17.9	6.3	0.0	0.0	10.6	10.6
Prop In Lane				0.28		0.22	1.00		0.00	0.00		0.38
Lane Grp Cap(c), veh/h				385	0	368	360	1656	0	0	828	666
V/C Ratio(X)				0.70	0.00	0.64	0.30	0.34	0.00	0.00	0.52	0.52
Avail Cap(c_a), veh/h				490	0	468	360	1656	0	0	828	666
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				17.2	0.0	16.8	15.1	8.3	0.0	0.0	9.3	9.3
Incr Delay (d2), s/veh				3.1	0.0	1.9	2.1	0.6	0.0	0.0	2.3	2.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.3	0.0	2.7	1.3	1.9	0.0	0.0	3.6	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				20.3	0.0	18.7	17.3	8.8	0.0	0.0	11.6	12.2
LnGrp LOS				C	A	B	B	A	A	A	B	B
Approach Vol, veh/h					505			676			772	
Approach Delay, s/veh					19.5			10.2			11.8	
Approach LOS					B			B			B	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		35.7				35.7		24.3				
Change Period (Y+Rc), s		* 4.2				* 4.2		4.0				
Max Green Setting (Gmax), s		* 26				* 26		25.8				
Max Q Clear Time (g_c+I1), s		19.9				12.6		14.3				
Green Ext Time (p_c), s		3.4				6.9		2.5				
Intersection Summary												
HCM 6th Ctrl Delay			13.3									
HCM 6th LOS			B									
Notes												

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	55	352	45	30	95	0	10	250	190
Future Volume (vph)	0	0	0	55	352	45	30	95	0	10	250	190
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)					3.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			0.99	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.99		1.00	1.00			0.94	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					2867		1568	2885			2692	
Flt Permitted					0.99		0.25	1.00			0.95	
Satd. Flow (perm)					2867		413	2885			2555	
Peak-hour factor, PHF	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Adj. Flow (vph)	0	0	0	79	503	64	43	136	0	14	357	271
RTOR Reduction (vph)	0	0	0	0	11	0	0	0	0	0	188	0
Lane Group Flow (vph)	0	0	0	0	635	0	43	136	0	0	454	0
Confl. Bikes (#/hr)			1			1			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)				6	6	4		12			11	11
Turn Type				Perm	NA		Perm	NA		Perm	NA	
Protected Phases					6			8			4	
Permitted Phases				6			8			4		
Actuated Green, G (s)					23.0		16.0	16.0			16.0	
Effective Green, g (s)					23.0		16.0	16.0			16.0	
Actuated g/C Ratio					0.33		0.23	0.23			0.23	
Clearance Time (s)					3.0		4.0	4.0			4.0	
Vehicle Extension (s)					2.0		2.0	2.0			2.0	
Lane Grp Cap (vph)					942		94	659			584	
v/s Ratio Prot								0.05				
v/s Ratio Perm					0.22		0.10				c0.18	
v/c Ratio					0.67		0.46	0.21			0.78	
Uniform Delay, d1					20.3		23.3	21.9			25.3	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					3.8		15.2	0.7			9.8	
Delay (s)					24.1		38.5	22.6			35.1	
Level of Service					C		D	C			D	
Approach Delay (s)		0.0			24.1			26.4			35.1	
Approach LOS		A			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	29.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection						
Int Delay, s/veh	0.1					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	14	524	673	137
Future Vol, veh/h	0	0	14	524	673	137
Conflicting Peds, #/hr	0	0	46	0	0	46
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	25	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	15	557	716	146

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	477	908	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	4.16	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	2.23	-	-	-
Pot Cap-1 Maneuver	0	532	739	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	509	707	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	707	-	-	-	-
HCM Lane V/C Ratio	0.021	-	-	-	-
HCM Control Delay (s)	10.2	-	0	-	-
HCM Lane LOS	B	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	338	0	0	0	0	0	0	114
Future Vol, veh/h	0	0	0	0	338	0	0	0	0	0	0	114
Conflicting Peds, #/hr	0	0	0	79	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	412	0	0	0	0	0	0	139

Major/Minor	Major2			Minor2		
Conflicting Flow All	79	0	0	-	491	206
Stage 1	-	-	-	-	412	-
Stage 2	-	-	-	-	79	-
Critical Hdwy	4.16	-	-	-	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.23	-	-	-	4.03	3.33
Pot Cap-1 Maneuver	1510	-	0	0	475	797
Stage 1	-	-	0	0	590	-
Stage 2	-	-	0	0	-	-
Platoon blocked, %		-				
Mov Cap-1 Maneuver	1510	-	-	-	0	797
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

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

Minor Lane/Major Mvmt	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	1510	-	-	797
HCM Lane V/C Ratio	-	-	-	0.174
HCM Control Delay (s)	0	-	0	10.5
HCM Lane LOS	A	-	A	B
HCM 95th %tile Q(veh)	0	-	-	0.6

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	767	29	31	1580	0	79
Future Vol, veh/h	767	29	31	1580	0	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	834	32	34	1717	0	86

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	866	0	-	433
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	773	-	0	571
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	773	-	-	571
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	4.6	12.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	571	-	-	773	-
HCM Lane V/C Ratio	0.15	-	-	0.044	-
HCM Control Delay (s)	12.4	-	-	9.9	4.5
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1843	62	80	1714	63	0	240	61	41	173	50
Future Volume (veh/h)	40	1843	62	80	1714	63	0	240	61	41	173	50
Initial Q (Qb), veh	0	15	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.97	0.99		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	0	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	44	2048	66	89	1904	67	0	267	60	46	192	37
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, %	3	3	3	3	3	3	0	3	3	3	3	3
Cap, veh/h	72	1739	32	72	1738	32	0	599	132	219	739	295
Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.67	0.00	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	181	2566	82	157	2558	89	0	2638	563	1030	3154	1258
Grp Volume(v), veh/h	44	1030	1084	89	960	1011	0	163	164	46	192	37
Grp Sat Flow(s),veh/h/ln	181	1299	1350	157	1299	1348	0	1577	1541	1030	1577	1258
Q Serve(g_s), s	0.0	66.7	66.7	0.0	66.7	66.7	0.0	8.8	9.1	4.0	5.0	2.3
Cycle Q Clear(g_c), s	66.7	66.7	66.7	66.7	66.7	66.7	0.0	8.8	9.1	13.1	5.0	2.3
Prop In Lane	1.00		0.06	1.00		0.07	0.00		0.37	1.00		1.00
Lane Grp Cap(c), veh/h	72	866	905	72	866	905	0	370	361	219	739	295
V/C Ratio(X)	0.61	1.19	1.20	1.24	1.11	1.12	0.00	0.44	0.45	0.21	0.26	0.13
Avail Cap(c_a), veh/h	72	866	900	72	866	899	0	420	410	252	839	335
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	0.00	0.77	0.77	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	16.7	16.7	50.0	16.7	16.7	0.0	32.7	32.8	38.4	31.2	30.2
Incr Delay (d2), s/veh	33.0	96.8	100.0	117.0	50.9	54.5	0.0	0.6	0.7	0.5	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	31.2	29.8	0.0	20.8	19.9	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	46.8	49.3	4.1	33.2	35.4	0.0	3.4	3.5	1.0	1.9	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.0	144.6	146.5	167.0	88.4	91.1	0.0	33.3	33.5	38.9	31.4	30.4
LnGrp LOS	F	F	F	F	F	F	A	C	C	D	C	C
Approach Vol, veh/h		2158			2060			327			275	
Approach Delay, s/veh		144.3			93.1			33.4			32.5	
Approach LOS		F			F			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		72.1		27.9		72.1		27.9				
Change Period (Y+Rc), s		5.4		4.5		5.4		4.5				
Max Green Setting (Gmax), s		63.5		26.6		63.5		26.6				
Max Q Clear Time (g_c+I1), s		68.7		15.1		68.7		11.1				
Green Ext Time (p_c), s		0.0		1.2		0.0		1.7				
Intersection Summary												
HCM 6th Ctrl Delay			108.5									
HCM 6th LOS			F									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑↱		↰	↑↱		↰	↑↱		↰	↑↱	
Traffic Volume (veh/h)	50	1681	44	105	1660	50	96	447	179	40	380	70
Future Volume (veh/h)	50	1681	44	105	1660	50	96	447	179	40	380	70
Initial Q (Qb), veh	0	15	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	0.99		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	56	1868	47	117	1844	54	107	497	186	44	422	65
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	72	1643	21	72	1640	25	189	593	221	129	726	111
Arrive On Green	0.63	0.63	0.63	0.63	0.63	0.63	0.53	0.53	0.53	0.27	0.27	0.27
Sat Flow, veh/h	194	2587	65	191	2576	75	893	2231	829	748	2731	417
Grp Volume(v), veh/h	56	933	982	117	925	973	107	350	333	44	242	245
Grp Sat Flow(s),veh/h/ln	194	1299	1353	191	1299	1352	893	1577	1483	748	1577	1571
Q Serve(g_s), s	0.0	62.6	62.6	0.0	62.6	62.6	11.6	18.7	19.0	5.8	13.3	13.5
Cycle Q Clear(g_c), s	62.6	62.6	62.6	62.6	62.6	62.6	25.2	18.7	19.0	24.8	13.3	13.5
Prop In Lane	1.00		0.05	1.00		0.06	1.00		0.56	1.00		0.27
Lane Grp Cap(c), veh/h	72	813	851	72	813	851	189	420	394	129	420	418
V/C Ratio(X)	0.78	1.15	1.15	1.62	1.14	1.14	0.57	0.84	0.84	0.34	0.58	0.59
Avail Cap(c_a), veh/h	72	813	847	72	813	846	189	420	394	129	420	418
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.61	0.61	0.61	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	18.7	18.7	50.0	18.7	18.7	29.6	21.6	21.6	45.4	31.8	31.9
Incr Delay (d2), s/veh	7.3	68.0	70.4	335.7	76.8	78.3	2.4	8.8	9.9	1.6	2.0	2.1
Initial Q Delay(d3),s/veh	0.0	33.2	31.7	0.0	22.1	21.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	38.7	40.7	8.5	38.2	40.1	2.3	5.9	5.7	1.1	5.3	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.3	119.9	120.8	385.7	117.6	118.2	32.1	30.4	31.5	47.0	33.8	34.0
LnGrp LOS	E	F	F	F	F	F	C	C	C	D	C	C
Approach Vol, veh/h		1971			2015			790			531	
Approach Delay, s/veh		118.6			133.5			31.1			35.0	
Approach LOS		F			F			C			C	

Timer - Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		68.0		32.0		68.0		32.0
Change Period (Y+Rc), s		5.4		5.4		5.4		5.4
Max Green Setting (Gmax), s		62.6		26.6		62.6		26.6
Max Q Clear Time (g_c+I1), s		64.6		26.8		64.6		27.2
Green Ext Time (p_c), s		0.0		0.0		0.0		0.0

Intersection Summary	
HCM 6th Ctrl Delay	102.8
HCM 6th LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1449	100	100	830	50	52	251	111	65	200	60
Future Volume (vph)	0	1449	100	100	830	50	52	251	111	65	200	60
Ideal Flow (vphpl)	1400	1400	1400	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		0.98			0.98		1.00	0.91		1.00	0.93	
Flpb, ped/bikes		1.00			1.00		0.80	1.00		0.85	1.00	
Frt		0.99			0.99		1.00	0.95		1.00	0.97	
Flt Protected		1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		2515			3038		1248	2537		1338	2805	
Flt Permitted		1.00			0.54		0.53	1.00		0.41	1.00	
Satd. Flow (perm)		2515			1651		694	2537		577	2805	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1525	105	105	874	53	55	264	117	68	211	63
RTOR Reduction (vph)	0	4	0	0	4	0	0	51	0	0	26	0
Lane Group Flow (vph)	0	1626	0	0	1028	0	55	330	0	68	248	0
Confl. Peds. (#/hr)	423		174	174		423	282		215	215		282
Confl. Bikes (#/hr)			6			1			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)								8	8			
Turn Type		NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases				6			8			4		
Actuated Green, G (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Effective Green, g (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Actuated g/C Ratio		0.60			0.67		0.23	0.23		0.23	0.23	
Clearance Time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		5.0			5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1496			1171		161	588		133	650	
v/s Ratio Prot		c0.65			c0.04			c0.13			0.09	
v/s Ratio Perm					0.55		0.08			0.12		
v/c Ratio		1.09			0.92dl		0.34	0.56		0.51	0.38	
Uniform Delay, d1		20.2			13.1		32.0	33.9		33.5	32.4	
Progression Factor		1.00			0.88		1.00	1.00		0.62	0.53	
Incremental Delay, d2		50.6			6.5		1.3	1.2		1.9	0.2	
Delay (s)		70.8			18.1		33.3	35.1		22.6	17.5	
Level of Service		E			B		C	D		C	B	
Approach Delay (s)		70.8			18.1			34.9			18.5	
Approach LOS		E			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	45.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	129.6%	ICU Level of Service	H
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	172	1310	306	110	849	50	94	530	170	0	459	90
Future Volume (veh/h)	172	1310	306	110	849	50	94	530	170	0	459	90
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.90	1.00		0.90	0.96		0.82	1.00		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1660	1660	1660	1660	1660	1660	0	1660	1660
Adj Flow Rate, veh/h	181	1379	315	116	894	49	99	558	160	0	483	78
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, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	73	1636	330	72	2345	126	145	817	299	0	683	109
Arrive On Green	0.77	0.77	0.77	1.00	1.00	1.00	0.26	0.26	0.26	0.00	0.26	0.26
Sat Flow, veh/h	475	2070	456	288	3021	166	808	3154	1156	0	2721	421
Grp Volume(v), veh/h	181	847	847	116	467	476	99	558	160	0	286	275
Grp Sat Flow(s),veh/h/ln	475	1299	1227	288	1577	1610	808	1577	1156	0	1577	1482
Q Serve(g_s), s	14.1	42.1	50.2	25.0	0.0	0.0	9.1	15.9	11.9	0.0	16.4	16.8
Cycle Q Clear(g_c), s	14.5	42.1	50.2	77.5	0.0	0.0	25.9	15.9	11.9	0.0	16.4	16.8
Prop In Lane	1.00		0.37	1.00		0.10	1.00		1.00	0.00		0.28
Lane Grp Cap(c), veh/h	73	1007	958	72	1222	1248	145	817	299	0	408	384
V/C Ratio(X)	2.49	0.84	0.88	1.61	0.38	0.38	0.68	0.68	0.53	0.00	0.70	0.72
Avail Cap(c_a), veh/h	438	1007	951	144	1222	1247	145	817	299	0	408	384
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00	0.00	0.28	0.28
Uniform Delay (d), s/veh	50.0	7.8	8.6	38.7	0.0	0.0	46.7	33.4	31.9	0.0	33.5	33.7
Incr Delay (d2), s/veh	710.3	8.5	11.7	321.5	0.8	0.8	12.3	2.3	1.8	0.0	1.5	1.8
Initial Q Delay(d3),s/veh	0.0	1.1	1.7	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.2	12.4	14.2	8.2	0.3	0.3	3.0	6.3	3.5	0.0	6.4	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	760.3	17.3	22.0	360.3	1.0	0.9	58.9	35.7	33.7	0.0	35.1	35.5
LnGrp LOS	F	B	C	F	A	A	E	D	C	A	D	D
Approach Vol, veh/h		1875			1059			817			561	
Approach Delay, s/veh		91.1			40.3			38.1			35.3	
Approach LOS		F			D			D			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	83.0	31.0	83.0	31.0
Change Period (Y+Rc), s	5.1	* 5.1	5.1	5.1
Max Green Setting (Gmax), s	64.3	* 26	64.3	25.5
Max Q Clear Time (g_c+I1), s	52.2	27.9	79.5	18.8
Green Ext Time (p_c), s	11.5	0.0	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	61.3
HCM 6th LOS	E

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1225	125	80	962	280	57	250	90	200	200	40
Future Volume (veh/h)	0	1225	125	80	962	280	57	250	90	200	200	40
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	0.99		0.95	0.92		0.89	0.95		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1367	1367	1660	1660	1660	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	0	1263	122	82	992	194	59	258	93	206	206	13
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	0	1379	90	72	1739	738	339	559	193	326	1107	454
Arrive On Green	0.00	1.00	1.00	0.55	0.55	0.55	0.25	0.25	0.25	0.07	0.35	0.35
Sat Flow, veh/h	0	2450	229	386	3154	1339	1059	2221	766	1581	3154	1295
Grp Volume(v), veh/h	0	687	698	82	992	194	59	180	171	206	206	13
Grp Sat Flow(s),veh/h/ln	0	1299	1312	386	1577	1339	1059	1577	1410	1581	1577	1295
Q Serve(g_s), s	0.0	0.0	0.0	12.1	20.6	7.6	4.4	9.6	10.3	6.9	4.5	0.7
Cycle Q Clear(g_c), s	0.0	0.0	0.0	12.1	20.6	7.6	4.4	9.6	10.3	6.9	4.5	0.7
Prop In Lane	0.00		0.17	1.00		1.00	1.00		0.54	1.00		1.00
Lane Grp Cap(c), veh/h	0	716	732	72	1739	738	339	397	355	326	1107	454
V/C Ratio(X)	0.00	0.96	0.95	1.14	0.57	0.26	0.17	0.45	0.48	0.63	0.19	0.03
Avail Cap(c_a), veh/h	0	716	723	285	1739	738	368	442	395	326	1196	491
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	50.0	15.1	11.8	29.6	31.6	31.9	29.3	22.5	21.3
Incr Delay (d2), s/veh	0.0	4.3	3.9	148.7	1.4	0.9	0.2	0.8	1.0	3.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	8.6	7.4	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.6	2.3	4.8	8.2	2.4	1.2	3.8	3.6	1.9	1.7	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	12.9	11.3	198.7	17.0	12.6	29.9	32.4	32.9	32.3	22.6	21.3
LnGrp LOS	A	B	B	F	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1385			1268			410			425	
Approach Delay, s/veh		12.1			28.1			32.2			27.3	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	2	4	6	7	8
Phs Duration (G+Y+Rc), s	60.2	39.8	60.2	9.9	29.9
Change Period (Y+Rc), s	5.1	* 4.7	5.1	3.0	* 4.7
Max Green Setting (Gmax), s	52.3	* 38	52.3	6.9	* 28
Max Q Clear Time (g_c+I1), s	2.0	6.5	22.6	8.9	12.3
Green Ext Time (p_c), s	30.2	1.5	19.1	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	22.1
HCM 6th LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	110	176	72	140	472	0	0	549	114
Future Volume (veh/h)	0	0	0	110	176	72	140	472	0	0	549	114
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.79	0.95		1.00	1.00		0.77
Parking Bus, Adj				0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	0.83
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1660	1660	1660	1660	1660	0	0	1660	1660
Adj Flow Rate, veh/h				116	185	57	147	497	0	0	578	93
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				303	496	156	354	1546	0	0	1165	186
Arrive On Green				0.37	0.37	0.37	0.49	0.49	0.00	0.00	0.49	0.49
Sat Flow, veh/h				812	1329	418	720	3237	0	0	2459	379
Grp Volume(v), veh/h				195	0	163	147	497	0	0	382	289
Grp Sat Flow(s),veh/h/ln				1362	0	1197	720	1577	0	0	1577	1177
Q Serve(g_s), s				6.3	0.0	5.9	10.4	5.7	0.0	0.0	9.8	10.0
Cycle Q Clear(g_c), s				6.3	0.0	5.9	20.4	5.7	0.0	0.0	9.8	10.0
Prop In Lane				0.60		0.35	1.00		0.00	0.00		0.32
Lane Grp Cap(c), veh/h				508	0	446	354	1546	0	0	773	577
V/C Ratio(X)				0.38	0.00	0.37	0.42	0.32	0.00	0.00	0.49	0.50
Avail Cap(c_a), veh/h				586	0	515	354	1546	0	0	773	577
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				13.8	0.0	13.7	17.2	9.3	0.0	0.0	10.3	10.3
Incr Delay (d2), s/veh				0.5	0.0	0.5	3.6	0.6	0.0	0.0	2.2	3.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.8	0.0	1.5	1.9	1.8	0.0	0.0	3.4	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				14.2	0.0	14.2	20.8	9.8	0.0	0.0	12.5	13.4
LnGrp LOS				B	A	B	C	A	A	A	B	B
Approach Vol, veh/h					358			644			671	
Approach Delay, s/veh					14.2			12.3			12.9	
Approach LOS					B			B			B	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		33.6				33.6		26.4				
Change Period (Y+Rc), s		* 4.2				* 4.2		4.0				
Max Green Setting (Gmax), s		* 26				* 26		25.8				
Max Q Clear Time (g_c+I1), s		22.4				12.0		8.3				
Green Ext Time (p_c), s		2.1				6.3		2.1				

Intersection Summary		
HCM 6th Ctrl Delay		13.0
HCM 6th LOS		B

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	91	205	150	70	325	0	0	390	130
Future Volume (vph)	0	0	0	91	205	150	70	325	0	0	390	130
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)					3.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			1.00	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.95		1.00	1.00			0.96	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					2744		1568	2885			2775	
Flt Permitted					0.99		0.27	1.00			1.00	
Satd. Flow (perm)					2744		447	2885			2775	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	96	216	158	74	342	0	0	411	137
RTOR Reduction (vph)	0	0	0	0	87	0	0	0	0	0	46	0
Lane Group Flow (vph)	0	0	0	0	383	0	74	342	0	0	502	0
Confl. Bikes (#/hr)			1			1			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)				6	6	4		12			11	11
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					6			8			4	
Permitted Phases				6			8					
Actuated Green, G (s)					23.0		16.0	16.0			16.0	
Effective Green, g (s)					23.0		16.0	16.0			16.0	
Actuated g/C Ratio					0.33		0.23	0.23			0.23	
Clearance Time (s)					3.0		4.0	4.0			4.0	
Vehicle Extension (s)					2.0		2.0	2.0			2.0	
Lane Grp Cap (vph)					901		102	659			634	
v/s Ratio Prot								0.12			c0.18	
v/s Ratio Perm					0.14		0.17					
v/c Ratio					0.42		0.73	0.52			0.79	
Uniform Delay, d1					18.3		25.0	23.6			25.4	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					1.5		36.1	2.9			9.8	
Delay (s)					19.8		61.1	26.5			35.2	
Level of Service					B		E	C			D	
Approach Delay (s)		0.0			19.8			32.7			35.2	
Approach LOS		A			B			C			D	

Intersection Summary			
HCM 2000 Control Delay	29.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	49.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection						
Int Delay, s/veh	0.1					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	9	794	663	152
Future Vol, veh/h	0	0	9	794	663	152
Conflicting Peds, #/hr	0	0	406	0	0	406
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	25	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	9	836	698	160

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	835	1264	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.96	4.16	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.33	2.23	-	-	-
Pot Cap-1 Maneuver	0	309	540	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	190	331	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	331	-	-	-	-
HCM Lane V/C Ratio	0.029	-	-	-	-
HCM Control Delay (s)	16.2	-	0	-	-
HCM Lane LOS	C	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	400	0	0	0	0	0	0	54
Future Vol, veh/h	0	0	0	0	400	0	0	0	0	0	0	54
Conflicting Peds, #/hr	0	0	0	251	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	421	0	0	0	0	0	0	57

Major/Minor	Major2			Minor2		
Conflicting Flow All	251	0	0	-	672	211
Stage 1	-	-	-	-	421	-
Stage 2	-	-	-	-	251	-
Critical Hdwy	4.16	-	-	-	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.23	-	-	-	4.03	3.33
Pot Cap-1 Maneuver	1304	-	0	0	374	791
Stage 1	-	-	0	0	585	-
Stage 2	-	-	0	0	-	-
Platoon blocked, %		-				
Mov Cap-1 Maneuver	1304	-	-	-	0	791
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

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

Minor Lane/Major Mvmt	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	1304	-	-	791
HCM Lane V/C Ratio	-	-	-	0.072
HCM Control Delay (s)	0	-	0	9.9
HCM Lane LOS	A	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.2

Intersection	
Int Delay, s/veh	9.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1449	82	88	970	0	235
Future Vol, veh/h	1449	82	88	970	0	235
Conflicting Peds, #/hr	0	100	100	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1509	85	92	1010	0	245

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1694	0	-	897
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.16	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.23	-	-	3.33
Pot Cap-1 Maneuver	-	-	368	-	0	281
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	333	-	-	254
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	6.5	89.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	254	-	-	333	-
HCM Lane V/C Ratio	0.964	-	-	0.275	-
HCM Control Delay (s)	89.8	-	-	19.9	5.3
HCM Lane LOS	F	-	-	C	A
HCM 95th %tile Q(veh)	9	-	-	1.1	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	767	29	31	1580	0	79
Future Vol, veh/h	767	29	31	1580	0	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	834	32	34	1717	0	86

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	866	0	-	433
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	773	-	0	571
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	773	-	-	571
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	12.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	571	-	-	773	-
HCM Lane V/C Ratio	0.15	-	-	0.044	-
HCM Control Delay (s)	12.4	-	-	9.9	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

Intersection	
Int Delay, s/veh	8.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1449	82	88	970	0	235
Future Vol, veh/h	1449	82	88	970	0	235
Conflicting Peds, #/hr	0	100	100	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1509	85	92	1010	0	245

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1694	0	-	897
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.16	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.23	-	-	3.33
Pot Cap-1 Maneuver	-	-	368	-	0	281
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	333	-	-	254
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	89.8
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	254	-	-	333	-
HCM Lane V/C Ratio	0.964	-	-	0.275	-
HCM Control Delay (s)	89.8	-	-	19.9	-
HCM Lane LOS	F	-	-	C	-
HCM 95th %tile Q(veh)	9	-	-	1.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	648	191	176	1424	30	44	400	80	0	553	87
Future Volume (veh/h)	96	648	191	176	1424	30	44	400	80	0	553	87
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	0.99		0.96	0.99		0.91	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1660	1660	1660	1367	1367	1367	1660	1660	1660	0	1660	1660
Adj Flow Rate, veh/h	101	682	192	185	1499	31	46	421	21	0	582	79
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, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	72	2445	1041	72	2017	40	117	817	333	0	714	97
Arrive On Green	0.77	0.77	0.77	1.00	1.00	1.00	0.26	0.26	0.26	0.00	0.26	0.26
Sat Flow, veh/h	336	3154	1344	515	2600	54	758	3154	1285	0	2839	373
Grp Volume(v), veh/h	101	682	192	185	748	782	46	421	21	0	332	329
Grp Sat Flow(s),veh/h/ln	336	1577	1344	515	1299	1355	758	1577	1285	0	1577	1551
Q Serve(g_s), s	9.8	6.2	3.8	5.9	0.0	0.0	6.0	11.4	1.2	0.0	19.8	19.9
Cycle Q Clear(g_c), s	10.2	6.2	3.8	12.7	0.0	0.0	25.9	11.4	1.2	0.0	19.8	19.9
Prop In Lane	1.00		1.00	1.00		0.04	1.00		1.00	0.00		0.24
Lane Grp Cap(c), veh/h	72	2445	1041	72	1007	1050	117	817	333	0	408	402
V/C Ratio(X)	1.40	0.28	0.18	2.57	0.74	0.74	0.39	0.52	0.06	0.00	0.81	0.82
Avail Cap(c_a), veh/h	331	2445	1041	436	1007	1050	117	817	333	0	408	402
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.40	0.40	0.40	1.00	1.00	1.00	0.00	0.09	0.09
Uniform Delay (d), s/veh	50.0	3.4	3.0	38.7	0.0	0.0	47.1	31.7	27.9	0.0	34.8	34.8
Incr Delay (d2), s/veh	244.1	0.3	0.4	720.4	2.0	2.0	2.1	0.6	0.1	0.0	1.2	1.3
Initial Q Delay(d3),s/veh	0.0	0.2	0.0	0.0	0.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	2.1	0.9	16.2	0.8	0.8	1.2	4.4	0.4	0.0	7.7	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	294.1	3.9	3.3	759.2	2.7	2.6	49.2	32.2	28.0	0.0	36.0	36.1
LnGrp LOS	F	A	A	F	A	A	D	C	C	A	D	D
Approach Vol, veh/h		975			1715			488			661	
Approach Delay, s/veh		33.8			84.3			33.7			36.0	
Approach LOS		C			F			C			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		83.0		31.0		83.0		31.0				
Change Period (Y+Rc), s		5.1		* 5.1		5.1		5.1				
Max Green Setting (Gmax), s		64.3		* 26		64.3		25.5				
Max Q Clear Time (g_c+I1), s		12.2		27.9		14.7		21.9				
Green Ext Time (p_c), s		19.8		0.0		38.4		1.4				

Intersection Summary			
HCM 6th Ctrl Delay			56.7
HCM 6th LOS			E

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	172	1310	306	110	849	50	94	530	170	0	459	90
Future Volume (veh/h)	172	1310	306	110	849	50	94	530	170	0	459	90
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.90	1.00		0.90	0.96		0.82	1.00		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1660	1660	1660	1660	1660	1660	0	1660	1660
Adj Flow Rate, veh/h	181	1379	314	116	894	49	99	558	160	0	483	78
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, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	73	2013	811	72	2345	126	145	817	299	0	683	109
Arrive On Green	0.77	0.77	0.77	1.00	1.00	1.00	0.26	0.26	0.26	0.00	0.26	0.26
Sat Flow, veh/h	475	2598	1046	288	3021	166	808	3154	1156	0	2721	421
Grp Volume(v), veh/h	181	1379	314	116	467	476	99	558	160	0	286	275
Grp Sat Flow(s),veh/h/ln	475	1299	1046	288	1577	1610	808	1577	1156	0	1577	1482
Q Serve(g_s), s	14.1	25.5	9.7	28.9	0.0	0.0	9.1	15.9	11.9	0.0	16.4	16.8
Cycle Q Clear(g_c), s	14.5	25.5	9.7	55.7	0.0	0.0	25.9	15.9	11.9	0.0	16.4	16.8
Prop In Lane	1.00		1.00	1.00		0.10	1.00		1.00	0.00		0.28
Lane Grp Cap(c), veh/h	73	2013	811	72	1222	1248	145	817	299	0	408	384
V/C Ratio(X)	2.49	0.68	0.39	1.61	0.38	0.38	0.68	0.68	0.53	0.00	0.70	0.72
Avail Cap(c_a), veh/h	438	2013	811	218	1222	1247	145	817	299	0	408	384
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.85	0.85	0.85	1.00	1.00	1.00	0.00	0.28	0.28
Uniform Delay (d), s/veh	50.0	5.8	3.6	38.7	0.0	0.0	46.7	33.4	31.9	0.0	33.5	33.7
Incr Delay (d2), s/veh	710.3	1.9	1.4	321.5	0.8	0.8	12.3	2.3	1.8	0.0	1.5	1.8
Initial Q Delay(d3),s/veh	0.0	0.6	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.2	6.7	1.9	8.2	0.3	0.3	3.0	6.3	3.5	0.0	6.4	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	760.3	8.2	5.0	360.3	1.0	0.9	58.9	35.7	33.7	0.0	35.1	35.5
LnGrp LOS	F	A	A	F	A	A	E	D	C	A	D	D
Approach Vol, veh/h		1874			1059			817			561	
Approach Delay, s/veh		80.3			40.3			38.1			35.3	
Approach LOS		F			D			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		83.0		31.0		83.0		31.0				
Change Period (Y+Rc), s		5.1		* 5.1		5.1		5.1				
Max Green Setting (Gmax), s		64.3		* 26		64.3		25.5				
Max Q Clear Time (g_c+I1), s		27.5		27.9		57.7		18.8				
Green Ext Time (p_c), s		30.9		0.0		5.3		2.0				

Intersection Summary			
HCM 6th Ctrl Delay			56.6
HCM 6th LOS			E

Notes

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

Appendix B (continued): Existing Uses Scenario

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	1318	27	80	1485	29	0	75	28	28	300	45
Future Volume (veh/h)	23	1318	27	80	1485	29	0	75	28	28	300	45
Initial Q (Qb), veh	0	10	0	0	15	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	0	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	26	1464	29	89	1650	31	0	83	8	31	333	26
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, %	3	3	3	3	3	3	0	3	3	3	3	3
Cap, veh/h	117	1915	36	72	1921	32	0	483	46	253	525	230
Arrive On Green	0.73	0.73	0.73	0.73	0.73	0.73	0.00	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	240	2603	52	288	2608	49	0	2987	276	1282	3154	1379
Grp Volume(v), veh/h	26	730	763	89	820	861	0	44	47	31	333	26
Grp Sat Flow(s),veh/h/ln	240	1299	1356	288	1299	1358	0	1577	1602	1282	1577	1379
Q Serve(g_s), s	8.8	34.0	34.2	27.2	45.5	46.0	0.0	2.4	2.5	2.1	9.8	1.6
Cycle Q Clear(g_c), s	54.8	34.0	34.2	61.4	45.5	46.0	0.0	2.4	2.5	4.6	9.8	1.6
Prop In Lane	1.00		0.04	1.00		0.04	0.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	117	954	997	72	954	998	0	263	267	253	525	230
V/C Ratio(X)	0.22	0.76	0.77	1.24	0.86	0.86	0.00	0.17	0.17	0.12	0.63	0.11
Avail Cap(c_a), veh/h	138	954	996	185	954	997	0	420	426	381	839	367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.40	0.40	0.40	0.00	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	8.5	8.5	50.0	10.4	10.4	0.0	35.7	35.8	37.8	38.8	35.4
Incr Delay (d2), s/veh	4.4	5.8	5.6	144.7	4.3	4.2	0.0	0.3	0.3	0.2	1.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.8	0.8	0.0	3.2	3.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	9.6	10.0	4.7	12.8	13.3	0.0	1.0	1.0	0.7	3.9	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.5	15.2	14.9	194.7	17.9	17.6	0.0	36.0	36.1	38.0	40.1	35.6
LnGrp LOS	D	B	B	F	B	B	A	D	D	D	D	D
Approach Vol, veh/h		1519			1770			91			390	
Approach Delay, s/veh		15.5			26.6			36.1			39.6	
Approach LOS		B			C			D			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		78.9		21.1		78.9		21.1				
Change Period (Y+Rc), s		5.4		4.5		5.4		4.5				
Max Green Setting (Gmax), s		63.5		26.6		63.5		26.6				
Max Q Clear Time (g_c+I1), s		56.8		11.8		63.4		4.5				
Green Ext Time (p_c), s		6.0		2.1		0.1		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			23.7									
HCM 6th LOS			C									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	1491	26	93	1270	36	20	339	144	21	473	57
Future Volume (veh/h)	37	1491	26	93	1270	36	20	339	144	21	473	57
Initial Q (Qb), veh	0	10	0	0	15	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	0.99		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	41	1657	28	103	1411	38	22	377	140	23	526	53
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	107	1730	20	72	1705	40	124	525	192	156	677	68
Arrive On Green	0.66	0.66	0.66	0.66	0.66	0.66	0.47	0.47	0.47	0.23	0.23	0.23
Sat Flow, veh/h	300	2613	44	239	2582	69	823	2240	818	871	2888	290
Grp Volume(v), veh/h	41	822	863	103	709	740	22	264	253	23	286	293
Grp Sat Flow(s),veh/h/ln	300	1299	1358	239	1299	1352	823	1577	1480	871	1577	1601
Q Serve(g_s), s	12.0	59.1	59.6	6.1	41.2	41.4	2.5	13.3	13.8	2.5	17.0	17.1
Cycle Q Clear(g_c), s	53.4	59.1	59.6	65.8	41.2	41.4	19.6	13.3	13.8	16.3	17.0	17.1
Prop In Lane	1.00		0.03	1.00		0.05	1.00		0.55	1.00		0.18
Lane Grp Cap(c), veh/h	107	854	895	72	854	890	124	370	347	156	370	375
V/C Ratio(X)	0.38	0.96	0.96	1.43	0.83	0.83	0.18	0.71	0.73	0.15	0.77	0.78
Avail Cap(c_a), veh/h	145	854	893	87	854	889	150	420	394	183	420	426
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.34	0.34	0.34	1.00	1.00	1.00	0.83	0.83	0.83	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.0	16.7	16.7	50.0	13.8	13.8	33.4	23.9	24.0	42.0	35.8	35.9
Incr Delay (d2), s/veh	3.5	11.1	10.9	256.5	9.2	8.9	0.6	4.1	4.9	0.4	7.8	8.0
Initial Q Delay(d3),s/veh	0.0	6.6	6.2	0.0	3.3	3.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	19.6	20.4	6.9	14.2	14.6	0.5	4.3	4.2	0.5	7.3	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.5	34.4	33.9	306.5	26.2	25.7	34.0	27.9	28.9	42.4	43.6	43.8
LnGrp LOS	D	C	C	F	C	C	C	C	C	D	D	D
Approach Vol, veh/h		1726			1552			539			602	
Approach Delay, s/veh		34.4			44.6			28.7			43.7	
Approach LOS		C			D			C			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		71.2		28.8		71.2		28.8				
Change Period (Y+Rc), s		5.4		5.4		5.4		5.4				
Max Green Setting (Gmax), s		62.6		26.6		62.6		26.6				
Max Q Clear Time (g_c+I1), s		61.6		19.1		67.8		21.6				
Green Ext Time (p_c), s		0.9		2.3		0.0		1.5				

Intersection Summary		
HCM 6th Ctrl Delay		38.5
HCM 6th LOS		D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	641	41	127	1347	21	11	82	32	31	327	49
Future Volume (vph)	0	641	41	127	1347	21	11	82	32	31	327	49
Ideal Flow (vphpl)	1700	1700	1700	1400	1400	1400	1700	1700	1700	1700	1700	1700
Total Lost time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	0.98		1.00	0.99	
Flpb, ped/bikes		1.00			1.00		0.98	1.00		0.96	1.00	
Frt		0.99			1.00		1.00	0.96		1.00	0.98	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3098			2559		1543	2749		1511	3057	
Flt Permitted		1.00			0.74		0.39	1.00		0.68	1.00	
Satd. Flow (perm)		3098			1900		640	2749		1075	3057	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	675	43	134	1418	22	12	86	34	33	344	52
RTOR Reduction (vph)	0	4	0	0	1	0	0	26	0	0	12	0
Lane Group Flow (vph)	0	714	0	0	1573	0	12	94	0	33	384	0
Confl. Peds. (#/hr)	100		29	29		100	24		33	33		24
Confl. Bikes (#/hr)			3			2			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)								8	8			
Turn Type		NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases				6			8			4		
Actuated Green, G (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Effective Green, g (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Actuated g/C Ratio		0.60			0.67		0.23	0.23		0.23	0.23	
Clearance Time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		5.0			5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1843			1306		148	637		249	709	
v/s Ratio Prot		0.23			c0.05			0.03			c0.13	
v/s Ratio Perm					c0.75		0.02			0.03		
v/c Ratio		0.39			1.20		0.08	0.15		0.13	0.54	
Uniform Delay, d1		10.7			16.4		30.1	30.5		30.4	33.7	
Progression Factor		1.00			0.52		1.00	1.00		0.43	0.39	
Incremental Delay, d2		0.6			96.2		0.2	0.1		0.2	0.7	
Delay (s)		11.3			104.8		30.3	30.6		13.2	14.0	
Level of Service		B			F		C	C		B	B	
Approach Delay (s)		11.3			104.8			30.6			13.9	
Approach LOS		B			F			C			B	

Intersection Summary			
HCM 2000 Control Delay	64.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	109.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	550	77	131	1373	21	49	381	70	0	527	77
Future Volume (veh/h)	75	550	77	131	1373	21	49	381	70	0	527	77
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	0.99		0.96	0.98		0.91	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1660	1660	1660	1367	1367	1367	1660	1660	1660	0	1660	1660
Adj Flow Rate, veh/h	79	579	70	138	1445	21	52	401	18	0	555	70
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, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	72	2190	259	72	2031	28	130	817	333	0	721	91
Arrive On Green	0.77	0.77	0.77	1.00	1.00	1.00	0.26	0.26	0.26	0.00	0.26	0.26
Sat Flow, veh/h	357	2818	340	633	2619	38	781	3154	1285	0	2869	350
Grp Volume(v), veh/h	79	323	326	138	716	750	52	401	18	0	313	312
Grp Sat Flow(s),veh/h/ln	357	1577	1580	633	1299	1358	781	1577	1285	0	1577	1558
Q Serve(g_s), s	6.5	5.8	5.8	2.5	0.0	0.0	6.6	10.8	1.1	0.0	18.4	18.5
Cycle Q Clear(g_c), s	6.9	5.8	5.8	9.0	0.0	0.0	25.1	10.8	1.1	0.0	18.4	18.5
Prop In Lane	1.00		0.21	1.00		0.03	1.00		1.00	0.00		0.22
Lane Grp Cap(c), veh/h	72	1222	1226	72	1007	1053	130	817	333	0	408	404
V/C Ratio(X)	1.09	0.26	0.27	1.91	0.71	0.71	0.40	0.49	0.05	0.00	0.77	0.77
Avail Cap(c_a), veh/h	347	1222	1225	522	1007	1053	130	817	333	0	408	404
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.51	0.51	0.51	0.92	0.92	0.92	0.00	0.33	0.33
Uniform Delay (d), s/veh	50.0	3.4	3.4	38.7	0.0	0.0	46.0	31.5	27.8	0.0	34.3	34.3
Incr Delay (d2), s/veh	134.2	0.5	0.5	436.1	2.2	2.1	1.8	0.4	0.1	0.0	2.9	3.1
Initial Q Delay(d3),s/veh	0.0	0.2	0.2	0.0	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	2.1	2.1	10.5	0.8	0.8	1.4	4.2	0.3	0.0	7.3	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	184.2	4.1	4.1	474.8	2.8	2.7	47.8	31.9	27.9	0.0	37.2	37.4
LnGrp LOS	F	A	A	F	A	A	D	C	C	A	D	D
Approach Vol, veh/h		728			1604			471			625	
Approach Delay, s/veh		23.6			43.4			33.5			37.3	
Approach LOS		C			D			C			D	

Timer - Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		83.0		31.0		83.0		31.0
Change Period (Y+Rc), s		5.1		* 5.1		5.1		5.1
Max Green Setting (Gmax), s		64.3		* 26		64.3		25.5
Max Q Clear Time (g_c+I1), s		8.9		27.1		11.0		20.5
Green Ext Time (p_c), s		14.1		0.0		37.1		1.8

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

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	482	60	76	1353	113	23	69	33	212	273	85
Future Volume (veh/h)	1	482	60	76	1353	113	23	69	33	212	273	85
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	0.99		0.97	0.95		0.92	0.94		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1660	1660	1660	1367	1367	1367	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	1	487	53	77	1367	89	23	70	33	214	276	67
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	36	1651	170	72	1505	649	291	468	200	415	1018	428
Arrive On Green	0.77	0.77	0.77	0.58	0.58	0.58	0.22	0.22	0.22	0.07	0.32	0.32
Sat Flow, veh/h	1	2799	303	702	2598	1120	977	2089	894	1581	3154	1327
Grp Volume(v), veh/h	288	0	253	77	1367	89	23	51	52	214	276	67
Grp Sat Flow(s),veh/h/ln	1658	0	1444	702	1299	1120	977	1577	1405	1581	1577	1327
Q Serve(g_s), s	0.0	0.0	5.2	5.8	46.7	3.6	1.9	2.6	3.0	6.9	6.5	3.6
Cycle Q Clear(g_c), s	5.2	0.0	5.2	11.1	46.7	3.6	1.9	2.6	3.0	6.9	6.5	3.6
Prop In Lane	0.00		0.21	1.00		1.00	1.00		0.64	1.00		1.00
Lane Grp Cap(c), veh/h	993	0	837	72	1505	649	291	353	315	415	1018	428
V/C Ratio(X)	0.29	0.00	0.30	1.07	0.91	0.14	0.08	0.14	0.16	0.52	0.27	0.16
Avail Cap(c_a), veh/h	997	0	836	442	1505	649	346	442	394	415	1196	503
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
Upstream Filter(I)	0.96	0.00	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.7	0.0	5.6	50.0	19.4	9.6	30.8	31.1	31.3	29.1	25.1	24.1
Incr Delay (d2), s/veh	0.7	0.0	0.9	126.4	9.6	0.4	0.1	0.2	0.2	0.5	0.1	0.2
Initial Q Delay(d3),s/veh	0.3	0.0	0.4	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	2.0	4.3	16.7	0.9	0.5	1.0	1.0	1.5	2.5	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.7	0.0	6.9	176.4	32.5	10.1	31.0	31.3	31.5	29.6	25.3	24.3
LnGrp LOS	A	A	A	F	C	B	C	C	C	C	C	C
Approach Vol, veh/h		541			1533			126			557	
Approach Delay, s/veh		6.8			38.4			31.3			26.8	
Approach LOS		A			D			C			C	
Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		63.0		37.0		63.0	9.9	27.1				
Change Period (Y+Rc), s		5.1		* 4.7		5.1	3.0	* 4.7				
Max Green Setting (Gmax), s		52.3		* 38		52.3	6.9	* 28				
Max Q Clear Time (g_c+I1), s		7.2		8.5		48.7	8.9	5.0				
Green Ext Time (p_c), s		8.0		2.2		3.3	0.0	0.7				

Intersection Summary			
HCM 6th Ctrl Delay			29.5
HCM 6th LOS			C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	61	333	62	93	497	0	0	563	136
Future Volume (veh/h)	0	0	0	61	333	62	93	497	0	0	563	136
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.91	0.99		1.00	1.00		0.96
Parking Bus, Adj				0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	0.81
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1660	1660	1660	1660	1660	0	0	1660	1660
Adj Flow Rate, veh/h				66	358	45	100	534	0	0	605	113
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				114	646	85	408	1739	0	0	1312	244
Arrive On Green				0.31	0.31	0.31	0.55	0.55	0.00	0.00	0.55	0.55
Sat Flow, veh/h				366	2070	271	724	3237	0	0	2462	443
Grp Volume(v), veh/h				249	0	220	100	534	0	0	400	318
Grp Sat Flow(s),veh/h/ln				1385	0	1324	724	1577	0	0	1577	1245
Q Serve(g_s), s				9.1	0.0	8.2	5.8	5.5	0.0	0.0	9.2	9.2
Cycle Q Clear(g_c), s				9.1	0.0	8.2	15.0	5.5	0.0	0.0	9.2	9.2
Prop In Lane				0.26		0.20	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				432	0	413	408	1739	0	0	870	687
V/C Ratio(X)				0.58	0.00	0.53	0.25	0.31	0.00	0.00	0.46	0.46
Avail Cap(c_a), veh/h				595	0	569	408	1739	0	0	870	687
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.54	0.54
Uniform Delay (d), s/veh				17.3	0.0	17.0	12.6	7.3	0.0	0.0	8.1	8.1
Incr Delay (d2), s/veh				1.2	0.0	1.1	1.4	0.5	0.0	0.0	0.9	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.8	0.0	2.4	1.0	1.7	0.0	0.0	2.8	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				18.6	0.0	18.1	14.0	7.7	0.0	0.0	9.0	9.3
LnGrp LOS				B	A	B	B	A	A	A	A	A
Approach Vol, veh/h					469			634			718	
Approach Delay, s/veh					18.3			8.7			9.2	
Approach LOS					B			A			A	

Timer - Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		37.3				37.3		22.7
Change Period (Y+Rc), s		* 4.2				* 4.2		4.0
Max Green Setting (Gmax), s		* 26				* 26		25.8
Max Q Clear Time (g_c+I1), s		17.0				11.2		11.1
Green Ext Time (p_c), s		4.4				6.9		2.6

Intersection Summary	
HCM 6th Ctrl Delay	11.4
HCM 6th LOS	B

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	43	329	41	22	70	0	0	235	174
Future Volume (vph)	0	0	0	43	329	41	22	70	0	0	235	174
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)					3.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			0.99	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.98		1.00	1.00			0.94	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					2870		1568	2885			2693	
Flt Permitted					0.99		0.25	1.00			1.00	
Satd. Flow (perm)					2870		413	2885			2693	
Peak-hour factor, PHF	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Adj. Flow (vph)	0	0	0	61	470	59	31	100	0	0	336	249
RTOR Reduction (vph)	0	0	0	0	11	0	0	0	0	0	191	0
Lane Group Flow (vph)	0	0	0	0	579	0	31	100	0	0	394	0
Confl. Bikes (#/hr)			1			1			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)				6	6	4		12			11	11
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					6			8			4	
Permitted Phases				6			8					
Actuated Green, G (s)					23.0		16.0	16.0			16.0	
Effective Green, g (s)					23.0		16.0	16.0			16.0	
Actuated g/C Ratio					0.33		0.23	0.23			0.23	
Clearance Time (s)					3.0		4.0	4.0			4.0	
Vehicle Extension (s)					2.0		2.0	2.0			2.0	
Lane Grp Cap (vph)					943		94	659			615	
v/s Ratio Prot								0.03			c0.15	
v/s Ratio Perm					0.20		0.08					
v/c Ratio					0.61		0.33	0.15			0.64	
Uniform Delay, d1					19.8		22.5	21.6			24.4	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					3.0		9.1	0.5			5.0	
Delay (s)					22.7		31.7	22.1			29.4	
Level of Service					C		C	C			C	
Approach Delay (s)		0.0			22.7			24.3			29.4	
Approach LOS		A			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	25.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	40.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	300	0	0	0	0	0	0	114
Future Vol, veh/h	0	0	0	0	300	0	0	0	0	0	0	114
Conflicting Peds, #/hr	0	0	0	79	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	366	0	0	0	0	0	0	139

Major/Minor	Major2			Minor2		
Conflicting Flow All	79	0	0	-	445	183
Stage 1	-	-	-	-	366	-
Stage 2	-	-	-	-	79	-
Critical Hdwy	4.16	-	-	-	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.23	-	-	-	4.03	3.33
Pot Cap-1 Maneuver	1510	-	0	0	504	825
Stage 1	-	-	0	0	619	-
Stage 2	-	-	0	0	-	-
Platoon blocked, %		-				
Mov Cap-1 Maneuver	1510	-	-	-	0	825
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

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

Minor Lane/Major Mvmt	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	1510	-	-	825
HCM Lane V/C Ratio	-	-	-	0.169
HCM Control Delay (s)	0	-	0	10.2
HCM Lane LOS	A	-	A	B
HCM 95th %tile Q(veh)	0	-	-	0.6

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	613	68	54	1499	0	0
Future Vol, veh/h	613	68	54	1499	0	0
Conflicting Peds, #/hr	0	31	31	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	652	72	57	1595	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	755	0	-	393
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.16	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.23	-	-	3.33
Pot Cap-1 Maneuver	-	-	845	-	0	603
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	820	-	-	585
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	820	-
HCM Lane V/C Ratio	-	-	-	0.07	-
HCM Control Delay (s)	0	-	-	9.7	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0.2	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	1470	46	73	1355	48	0	228	58	30	162	42
Future Volume (veh/h)	35	1470	46	73	1355	48	0	228	58	30	162	42
Initial Q (Qb), veh	0	15	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.97	0.98		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	0	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	39	1633	49	81	1506	50	0	253	43	33	180	17
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, %	3	3	3	3	3	3	0	3	3	3	3	3
Cap, veh/h	100	1750	36	72	1731	52	0	614	103	227	720	286
Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.67	0.00	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	271	2573	77	240	2563	85	0	2774	450	1058	3154	1254
Grp Volume(v), veh/h	39	822	860	81	761	795	0	147	149	33	180	17
Grp Sat Flow(s),veh/h/ln	271	1299	1351	240	1299	1349	0	1577	1564	1058	1577	1254
Q Serve(g_s), s	13.4	56.4	57.4	9.9	46.4	46.9	0.0	7.9	8.2	2.7	4.7	1.1
Cycle Q Clear(g_c), s	60.3	56.4	57.4	67.3	46.4	46.9	0.0	7.9	8.2	10.9	4.7	1.1
Prop In Lane	1.00		0.06	1.00		0.06	0.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	100	874	912	72	874	909	0	360	357	227	720	286
V/C Ratio(X)	0.39	0.94	0.94	1.12	0.87	0.87	0.00	0.41	0.42	0.15	0.25	0.06
Avail Cap(c_a), veh/h	127	874	909	96	874	908	0	420	416	267	839	334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.32	0.32	0.32	0.00	0.81	0.81	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.4	15.6	15.6	50.0	13.5	13.6	0.0	32.8	32.9	37.6	31.6	30.2
Incr Delay (d2), s/veh	11.1	19.0	18.8	97.7	4.2	4.1	0.0	0.6	0.6	0.3	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	8.9	8.6	0.0	1.8	1.7	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	21.7	22.6	3.7	13.4	13.9	0.0	3.1	3.2	0.7	1.8	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.5	43.5	43.0	147.7	19.5	19.4	0.0	33.4	33.6	37.9	31.8	30.3
LnGrp LOS	D	D	D	F	B	B	A	C	C	D	C	C
Approach Vol, veh/h		1721			1637			296			230	
Approach Delay, s/veh		43.5			25.8			33.5			32.5	
Approach LOS		D			C			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		72.7		27.3		72.7		27.3				
Change Period (Y+Rc), s		5.4		4.5		5.4		4.5				
Max Green Setting (Gmax), s		63.5		26.6		63.5		26.6				
Max Q Clear Time (g_c+I1), s		62.3		12.9		69.3		10.2				
Green Ext Time (p_c), s		1.2		1.1		0.0		1.6				

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	1317	42	85	1327	32	78	426	166	36	355	63
Future Volume (veh/h)	46	1317	42	85	1327	32	78	426	166	36	355	63
Initial Q (Qb), veh	0	15	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	0.99		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	51	1463	45	94	1474	34	87	473	152	40	394	54
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	101	1662	42	72	1672	34	187	583	186	132	694	94
Arrive On Green	0.64	0.64	0.64	0.64	0.64	0.64	0.50	0.50	0.50	0.25	0.25	0.25
Sat Flow, veh/h	284	2570	79	284	2594	60	924	2333	743	788	2778	378
Grp Volume(v), veh/h	51	738	770	94	737	771	87	318	307	40	222	226
Grp Sat Flow(s),veh/h/ln	284	1299	1350	284	1299	1355	924	1577	1499	788	1577	1578
Q Serve(g_s), s	17.0	47.1	47.5	16.8	46.9	47.2	8.7	17.0	17.3	4.9	12.3	12.5
Cycle Q Clear(g_c), s	64.2	47.1	47.5	64.2	46.9	47.2	21.2	17.0	17.3	22.3	12.3	12.5
Prop In Lane	1.00		0.06	1.00		0.04	1.00		0.50	1.00		0.24
Lane Grp Cap(c), veh/h	101	834	869	72	834	871	187	394	374	132	394	394
V/C Ratio(X)	0.51	0.88	0.89	1.31	0.88	0.88	0.47	0.81	0.82	0.30	0.56	0.57
Avail Cap(c_a), veh/h	120	834	867	120	834	870	202	420	399	145	420	420
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.65	0.65	0.65	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	15.8	15.8	50.0	15.4	15.4	29.9	23.0	23.1	44.9	32.8	32.8
Incr Delay (d2), s/veh	1.6	1.4	1.4	208.1	13.1	12.7	1.2	7.2	8.2	1.3	1.5	1.7
Initial Q Delay(d3),s/veh	0.0	5.0	4.7	0.0	2.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	14.5	15.0	5.9	16.1	16.7	1.7	5.4	5.3	1.0	4.9	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.8	22.3	21.9	258.1	30.7	30.2	31.1	30.2	31.3	46.2	34.3	34.5
LnGrp LOS	D	C	C	F	C	C	C	C	C	D	C	C
Approach Vol, veh/h		1559			1602			712			488	
Approach Delay, s/veh		22.9			43.8			30.8			35.4	
Approach LOS		C			D			C			D	

Timer - Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		69.6		30.4		69.6		30.4
Change Period (Y+Rc), s		5.4		5.4		5.4		5.4
Max Green Setting (Gmax), s		62.6		26.6		62.6		26.6
Max Q Clear Time (g_c+I1), s		66.2		24.3		66.2		23.2
Green Ext Time (p_c), s		0.0		0.7		0.0		1.5

Intersection Summary		
HCM 6th Ctrl Delay		33.3
HCM 6th LOS		C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1331	90	91	724	48	46	239	94	41	191	50
Future Volume (vph)	0	1331	90	91	724	48	46	239	94	41	191	50
Ideal Flow (vphpl)	1400	1400	1400	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		0.98			0.98		1.00	0.92		1.00	0.93	
Flpb, ped/bikes		1.00			1.00		0.79	1.00		0.84	1.00	
Frt		0.99			0.99		1.00	0.96		1.00	0.97	
Flt Protected		1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		2516			3030		1235	2567		1323	2835	
Flt Permitted		1.00			0.57		0.55	1.00		0.44	1.00	
Satd. Flow (perm)		2516			1744		717	2567		615	2835	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1401	95	96	762	51	48	252	99	43	201	53
RTOR Reduction (vph)	0	4	0	0	4	0	0	41	0	0	24	0
Lane Group Flow (vph)	0	1492	0	0	905	0	48	310	0	43	230	0
Confl. Peds. (#/hr)	423		174	174		423	282		215	215		282
Confl. Bikes (#/hr)			6			1			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)								8	8			
Turn Type		NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases				6			8			4		
Actuated Green, G (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Effective Green, g (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Actuated g/C Ratio		0.60			0.67		0.23	0.23		0.23	0.23	
Clearance Time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		5.0			5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1497			1229		166	595		142	657	
v/s Ratio Prot		c0.59			c0.03			c0.12			0.08	
v/s Ratio Perm					0.46		0.07			0.07		
v/c Ratio		1.00			0.74		0.29	0.52		0.30	0.35	
Uniform Delay, d1		20.1			10.6		31.6	33.5		31.7	32.1	
Progression Factor		1.00			0.80		1.00	1.00		0.57	0.52	
Incremental Delay, d2		22.4			1.8		1.0	0.8		1.0	0.3	
Delay (s)		42.6			10.3		32.6	34.4		19.1	16.9	
Level of Service		D			B		C	C		B	B	
Approach Delay (s)		42.6			10.3			34.1			17.3	
Approach LOS		D			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	29.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	121.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	1193	145	98	737	48	77	522	157	0	437	69
Future Volume (veh/h)	131	1193	145	98	737	48	77	522	157	0	437	69
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.90	1.00		0.90	0.95		0.82	1.00		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1660	1660	1660	1660	1660	1660	0	1660	1660
Adj Flow Rate, veh/h	138	1256	146	103	776	46	81	549	138	0	460	61
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, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	72	1806	200	72	2332	136	161	817	299	0	707	93
Arrive On Green	0.77	0.77	0.77	1.00	1.00	1.00	0.26	0.26	0.26	0.00	0.26	0.26
Sat Flow, veh/h	529	2316	268	381	3005	178	833	3154	1156	0	2812	358
Grp Volume(v), veh/h	138	701	701	103	407	415	81	549	138	0	264	257
Grp Sat Flow(s),veh/h/ln	529	1299	1285	381	1577	1606	833	1577	1156	0	1577	1509
Q Serve(g_s), s	8.1	26.4	27.0	15.2	0.0	0.0	9.6	15.6	10.0	0.0	14.9	15.2
Cycle Q Clear(g_c), s	8.5	26.4	27.0	43.6	0.0	0.0	24.9	15.6	10.0	0.0	14.9	15.2
Prop In Lane	1.00		0.21	1.00		0.11	1.00		1.00	0.00		0.24
Lane Grp Cap(c), veh/h	72	1007	998	72	1222	1245	161	817	299	0	408	391
V/C Ratio(X)	1.91	0.70	0.70	1.43	0.33	0.33	0.50	0.67	0.46	0.00	0.65	0.66
Avail Cap(c_a), veh/h	480	1007	996	259	1222	1244	161	817	299	0	408	391
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.90	0.94	0.94	0.94	0.00	0.70	0.70
Uniform Delay (d), s/veh	50.0	5.9	5.9	38.7	0.0	0.0	44.2	33.2	31.2	0.0	33.0	33.1
Incr Delay (d2), s/veh	456.2	4.0	4.1	250.1	0.7	0.6	2.3	2.0	1.0	0.0	2.5	2.8
Initial Q Delay(d3),s/veh	0.0	0.6	0.6	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.0	7.5	7.5	6.8	0.3	0.3	2.1	6.2	2.9	0.0	5.9	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	506.2	10.4	10.7	288.9	0.8	0.8	46.5	35.3	32.2	0.0	35.4	35.9
LnGrp LOS	F	B	B	F	A	A	D	D	C	A	D	D
Approach Vol, veh/h		1540			925			768			521	
Approach Delay, s/veh		55.0			32.9			35.9			35.7	
Approach LOS		D			C			D			D	

Timer - Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		83.0		31.0		83.0		31.0
Change Period (Y+Rc), s		5.1		* 5.1		5.1		5.1
Max Green Setting (Gmax), s		64.3		* 26		64.3		25.5
Max Q Clear Time (g_c+I1), s		29.0		26.9		45.6		17.2
Green Ext Time (p_c), s		26.7		0.0		11.0		2.1

Intersection Summary	
HCM 6th Ctrl Delay	43.0
HCM 6th LOS	D

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1120	106	71	842	270	51	232	86	190	193	33
Future Volume (veh/h)	0	1120	106	71	842	270	51	232	86	190	193	33
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	0.99		0.95	0.92		0.89	0.95		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1367	1367	1660	1660	1660	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	0	1155	103	73	868	172	53	239	89	196	199	10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	0	1345	104	277	1741	739	340	553	196	335	1105	453
Arrive On Green	0.00	1.00	1.00	0.55	0.55	0.55	0.25	0.25	0.25	0.07	0.35	0.35
Sat Flow, veh/h	0	2469	214	435	3154	1339	1067	2202	780	1581	3154	1295
Grp Volume(v), veh/h	0	624	634	73	868	172	53	168	160	196	199	10
Grp Sat Flow(s),veh/h/ln	0	1299	1315	435	1577	1339	1067	1577	1405	1581	1577	1295
Q Serve(g_s), s	0.0	0.0	0.0	9.0	17.0	6.6	3.9	8.9	9.6	6.9	4.4	0.5
Cycle Q Clear(g_c), s	0.0	0.0	0.0	9.0	17.0	6.6	3.9	8.9	9.6	6.9	4.4	0.5
Prop In Lane	0.00		0.16	1.00		1.00	1.00		0.56	1.00		1.00
Lane Grp Cap(c), veh/h	0	717	729	277	1741	739	340	396	353	335	1105	453
V/C Ratio(X)	0.00	0.87	0.87	0.26	0.50	0.23	0.16	0.42	0.45	0.59	0.18	0.02
Avail Cap(c_a), veh/h	0	717	726	312	1741	739	371	442	393	335	1196	491
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.46	0.46	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	17.7	14.2	11.5	29.5	31.4	31.6	28.3	22.5	21.3
Incr Delay (d2), s/veh	0.0	6.9	6.8	2.3	1.0	0.7	0.2	0.7	0.9	1.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	2.7	2.6	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.9	1.9	1.2	6.8	2.1	1.0	3.5	3.4	1.5	1.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	9.7	9.4	20.0	15.7	12.3	29.7	32.1	32.6	30.1	22.6	21.3
LnGrp LOS	A	A	A	B	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1258			1113			381			405	
Approach Delay, s/veh		9.5			15.5			32.0			26.2	
Approach LOS		A			B			C			C	

Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		60.3		39.7		60.3	9.9	29.8				
Change Period (Y+Rc), s		5.1		* 4.7		5.1	3.0	* 4.7				
Max Green Setting (Gmax), s		52.3		* 38		52.3	6.9	* 28				
Max Q Clear Time (g_c+I1), s		2.0		6.4		19.0	8.9	11.6				
Green Ext Time (p_c), s		26.4		1.4		17.8	0.0	2.1				

Intersection Summary			
HCM 6th Ctrl Delay			16.5
HCM 6th LOS			B

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	97	162	65	131	442	0	0	524	91
Future Volume (veh/h)	0	0	0	97	162	65	131	442	0	0	524	91
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.79	0.94		1.00	1.00		0.77
Parking Bus, Adj				0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	0.81
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1660	1660	1660	1660	1660	0	0	1660	1660
Adj Flow Rate, veh/h				102	171	47	138	465	0	0	552	73
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				299	515	144	374	1549	0	0	1196	156
Arrive On Green				0.37	0.37	0.37	0.49	0.49	0.00	0.00	0.49	0.49
Sat Flow, veh/h				804	1383	387	746	3237	0	0	2518	319
Grp Volume(v), veh/h				173	0	147	138	465	0	0	356	269
Grp Sat Flow(s),veh/h/ln				1363	0	1211	746	1577	0	0	1577	1176
Q Serve(g_s), s				5.5	0.0	5.2	9.0	5.3	0.0	0.0	8.9	9.1
Cycle Q Clear(g_c), s				5.5	0.0	5.2	18.1	5.3	0.0	0.0	8.9	9.1
Prop In Lane				0.59		0.32	1.00		0.00	0.00		0.27
Lane Grp Cap(c), veh/h				507	0	451	374	1549	0	0	775	578
V/C Ratio(X)				0.34	0.00	0.33	0.37	0.30	0.00	0.00	0.46	0.47
Avail Cap(c_a), veh/h				586	0	521	374	1549	0	0	775	578
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.58	0.58
Uniform Delay (d), s/veh				13.5	0.0	13.5	16.0	9.1	0.0	0.0	10.0	10.1
Incr Delay (d2), s/veh				0.4	0.0	0.4	2.8	0.5	0.0	0.0	1.1	1.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.6	0.0	1.4	1.7	1.7	0.0	0.0	2.9	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				13.9	0.0	13.9	18.8	9.6	0.0	0.0	11.2	11.7
LnGrp LOS				B	A	B	B	A	A	A	B	B
Approach Vol, veh/h					320			603			625	
Approach Delay, s/veh					13.9			11.7			11.4	
Approach LOS					B			B			B	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		33.7				33.7		26.3				
Change Period (Y+Rc), s		* 4.2				* 4.2		4.0				
Max Green Setting (Gmax), s		* 26				* 26		25.8				
Max Q Clear Time (g_c+I1), s		20.1				11.1		7.5				
Green Ext Time (p_c), s		3.0				6.1		1.9				
Intersection Summary												
HCM 6th Ctrl Delay			12.0									
HCM 6th LOS			B									

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	85	194	153	54	289	0	0	368	118
Future Volume (vph)	0	0	0	85	194	153	54	289	0	0	368	118
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)					3.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			1.00	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.95		1.00	1.00			0.96	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					2737		1568	2885			2779	
Flt Permitted					0.99		0.30	1.00			1.00	
Satd. Flow (perm)					2737		503	2885			2779	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	89	204	161	57	304	0	0	387	124
RTOR Reduction (vph)	0	0	0	0	102	0	0	0	0	0	44	0
Lane Group Flow (vph)	0	0	0	0	352	0	57	304	0	0	467	0
Confl. Bikes (#/hr)			1			1			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)				6	6	4		12			11	11
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					6			8			4	
Permitted Phases				6			8					
Actuated Green, G (s)					23.0		16.0	16.0			16.0	
Effective Green, g (s)					23.0		16.0	16.0			16.0	
Actuated g/C Ratio					0.33		0.23	0.23			0.23	
Clearance Time (s)					3.0		4.0	4.0			4.0	
Vehicle Extension (s)					2.0		2.0	2.0			2.0	
Lane Grp Cap (vph)					899		114	659			635	
v/s Ratio Prot								0.11			c0.17	
v/s Ratio Perm					0.13		0.11					
v/c Ratio					0.39		0.50	0.46			0.74	
Uniform Delay, d1					18.1		23.5	23.3			25.0	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					1.3		14.8	2.3			7.4	
Delay (s)					19.4		38.3	25.6			32.5	
Level of Service					B		D	C			C	
Approach Delay (s)		0.0			19.4			27.6			32.5	
Approach LOS		A			B			C			C	

Intersection Summary			
HCM 2000 Control Delay	26.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	48.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	359	0	0	0	0	0	0	74
Future Vol, veh/h	0	0	0	0	359	0	0	0	0	0	0	74
Conflicting Peds, #/hr	0	0	0	251	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	378	0	0	0	0	0	0	78

Major/Minor	Major2			Minor2		
Conflicting Flow All	251	0	0	-	629	189
Stage 1	-	-	-	-	378	-
Stage 2	-	-	-	-	251	-
Critical Hdwy	4.16	-	-	-	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.23	-	-	-	4.03	3.33
Pot Cap-1 Maneuver	1304	-	0	0	396	818
Stage 1	-	-	0	0	611	-
Stage 2	-	-	0	0	-	-
Platoon blocked, %		-				
Mov Cap-1 Maneuver	1304	-	-	-	0	818
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

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

Minor Lane/Major Mvmt	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	1304	-	-	818
HCM Lane V/C Ratio	-	-	-	0.095
HCM Control Delay (s)	0	-	0	9.9
HCM Lane LOS	A	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.3

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1335	54	33	856	0	0
Future Vol, veh/h	1335	54	33	856	0	0
Conflicting Peds, #/hr	0	100	100	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1391	56	34	892	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1547	0	-	824
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.16	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.23	-	-	3.33
Pot Cap-1 Maneuver	-	-	420	-	0	314
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	380	-	-	284
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	380	-
HCM Lane V/C Ratio	-	-	-	0.09	-
HCM Control Delay (s)	0	-	-	15.4	-
HCM Lane LOS	A	-	-	C	-
HCM 95th %tile Q(veh)	-	-	-	0.3	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	1591	31	90	1751	30	0	80	30	30	320	50
Future Volume (veh/h)	30	1591	31	90	1751	30	0	80	30	30	320	50
Initial Q (Qb), veh	0	10	0	0	15	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	0	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	33	1768	33	100	1946	32	0	89	17	33	356	37
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, %	3	3	3	3	3	3	0	3	3	3	3	3
Cap, veh/h	72	1905	30	72	1921	17	0	457	85	253	545	239
Arrive On Green	0.73	0.73	0.73	0.73	0.73	0.73	0.00	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	180	2607	49	214	2615	43	0	2727	490	1265	3154	1380
Grp Volume(v), veh/h	33	878	923	100	964	1014	0	52	54	33	356	37
Grp Sat Flow(s),veh/h/ln	180	1299	1357	214	1299	1359	0	1577	1557	1265	1577	1380
Q Serve(g_s), s	0.0	56.8	57.8	15.0	72.8	72.8	0.0	2.8	3.0	2.3	10.5	2.3
Cycle Q Clear(g_c), s	72.8	56.8	57.8	72.8	72.8	72.8	0.0	2.8	3.0	5.3	10.5	2.3
Prop In Lane	1.00		0.04	1.00		0.03	0.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	72	946	989	72	946	992	0	273	269	253	545	239
V/C Ratio(X)	0.46	0.93	0.93	1.39	1.02	1.02	0.00	0.19	0.20	0.13	0.65	0.16
Avail Cap(c_a), veh/h	72	946	988	104	946	989	0	420	414	371	839	367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	0.00	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	12.1	12.1	50.0	13.6	13.6	0.0	35.4	35.4	37.7	38.6	35.1
Incr Delay (d2), s/veh	19.6	16.4	16.4	182.7	14.1	15.1	0.0	0.3	0.4	0.2	1.3	0.3
Initial Q Delay(d3),s/veh	0.0	2.8	2.7	0.0	28.6	27.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	18.1	19.1	5.4	26.7	27.9	0.0	1.1	1.2	0.7	4.2	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.6	31.3	31.3	232.7	56.3	55.9	0.0	35.7	35.8	37.9	39.9	35.4
LnGrp LOS	E	C	C	F	F	F	A	D	D	D	D	D
Approach Vol, veh/h		1834			2078			106			426	
Approach Delay, s/veh		32.0			64.6			35.7			39.3	
Approach LOS		C			E			D			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		78.2		21.8		78.2		21.8				
Change Period (Y+Rc), s		5.4		4.5		5.4		4.5				
Max Green Setting (Gmax), s		63.5		26.6		63.5		26.6				
Max Q Clear Time (g_c+I1), s		74.8		12.5		74.8		5.0				
Green Ext Time (p_c), s		0.0		2.2		0.0		0.5				
Intersection Summary												
HCM 6th Ctrl Delay			48.0									
HCM 6th LOS			D									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1770	31	102	1530	40	22	360	151	40	501	60
Future Volume (veh/h)	40	1770	31	102	1530	40	22	360	151	40	501	60
Initial Q (Qb), veh	0	10	0	0	15	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	0.99		0.97	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	44	1967	33	113	1700	42	24	400	158	44	557	57
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	72	1712	16	72	1707	20	121	533	207	149	700	71
Arrive On Green	0.65	0.65	0.65	0.65	0.65	0.65	0.49	0.49	0.49	0.24	0.24	0.24
Sat Flow, veh/h	226	2614	44	176	2589	64	798	2196	854	839	2883	294
Grp Volume(v), veh/h	44	974	1026	113	850	892	24	286	272	44	304	310
Grp Sat Flow(s),veh/h/ln	226	1299	1358	176	1299	1353	798	1577	1473	839	1577	1600
Q Serve(g_s), s	0.0	64.9	64.9	0.0	64.9	64.9	2.8	14.6	15.1	5.0	18.1	18.2
Cycle Q Clear(g_c), s	64.9	64.9	64.9	64.9	64.9	64.9	21.0	14.6	15.1	20.1	18.1	18.2
Prop In Lane	1.00		0.03	1.00		0.05	1.00		0.58	1.00		0.18
Lane Grp Cap(c), veh/h	72	843	884	72	843	883	121	383	358	149	383	389
V/C Ratio(X)	0.61	1.16	1.16	1.57	1.01	1.01	0.20	0.75	0.76	0.30	0.79	0.80
Avail Cap(c_a), veh/h	72	843	882	72	843	879	139	420	392	169	420	426
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.79	0.79	0.79	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	17.5	17.5	50.0	17.5	17.5	33.4	23.2	23.4	43.5	35.5	35.6
Incr Delay (d2), s/veh	3.5	71.4	73.2	312.7	33.1	32.6	0.6	5.2	6.3	1.1	9.3	9.5
Initial Q Delay(d3),s/veh	0.0	21.3	20.4	0.0	32.0	30.6	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	37.7	39.7	8.0	31.2	32.2	0.5	4.6	4.5	1.1	7.9	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.5	110.3	111.0	362.7	82.6	80.7	34.0	28.4	29.6	44.6	44.9	45.0
LnGrp LOS	D	F	F	F	F	F	C	C	C	D	D	D
Approach Vol, veh/h		2044			1855			582			658	
Approach Delay, s/veh		109.4			98.8			29.2			44.9	
Approach LOS		F			F			C			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	70.3	29.7	70.3	29.7
Change Period (Y+Rc), s	5.4	5.4	5.4	5.4
Max Green Setting (Gmax), s	62.6	26.6	62.6	26.6
Max Q Clear Time (g_c+I1), s	66.9	22.1	66.9	23.0
Green Ext Time (p_c), s	0.0	1.7	0.0	1.3

Intersection Summary	
HCM 6th Ctrl Delay	88.3
HCM 6th LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	724	50	140	1420	30	21	100	43	41	360	60
Future Volume (vph)	0	724	50	140	1420	30	21	100	43	41	360	60
Ideal Flow (vphpl)	1700	1700	1700	1400	1400	1400	1700	1700	1700	1700	1700	1700
Total Lost time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	0.98		1.00	0.99	
Flpb, ped/bikes		1.00			1.00		0.99	1.00		0.97	1.00	
Frt		0.99			1.00		1.00	0.95		1.00	0.98	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3094			2555		1545	2739		1513	3050	
Flt Permitted		1.00			0.69		0.35	1.00		0.66	1.00	
Satd. Flow (perm)		3094			1780		567	2739		1046	3050	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	762	53	147	1495	32	22	105	45	43	379	63
RTOR Reduction (vph)	0	4	0	0	1	0	0	35	0	0	14	0
Lane Group Flow (vph)	0	811	0	0	1673	0	22	115	0	43	428	0
Confl. Peds. (#/hr)	100		29	29		100	24		33	33		24
Confl. Bikes (#/hr)			3			2			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)								8	8			
Turn Type		NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases				6			8			4		
Actuated Green, G (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Effective Green, g (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Actuated g/C Ratio		0.60			0.67		0.23	0.23		0.23	0.23	
Clearance Time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		5.0			5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1840			1231		131	635		242	707	
v/s Ratio Prot		0.26			c0.06			0.04			c0.14	
v/s Ratio Perm					c0.85		0.04			0.04		
v/c Ratio		0.44			1.36		0.17	0.18		0.18	0.61	
Uniform Delay, d1		11.1			16.4		30.7	30.8		30.8	34.3	
Progression Factor		1.00			0.49		1.00	1.00		0.43	0.39	
Incremental Delay, d2		0.8			163.9		0.6	0.1		0.2	0.9	
Delay (s)		11.9			171.9		31.3	30.9		13.4	14.2	
Level of Service		B			F		C	C		B	B	
Approach Delay (s)		11.9			171.9			31.0			14.1	
Approach LOS		B			F			C			B	

Intersection Summary			
HCM 2000 Control Delay	98.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	123.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	641	84	142	1452	30	51	402	80	0	553	82
Future Volume (veh/h)	81	641	84	142	1452	30	51	402	80	0	553	82
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	0.99		0.96	0.99		0.91	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1660	1660	1660	1367	1367	1367	1660	1660	1660	0	1660	1660
Adj Flow Rate, veh/h	85	675	79	149	1528	31	54	423	21	0	582	75
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, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	72	2198	252	72	2018	39	119	817	333	0	719	92
Arrive On Green	0.77	0.77	0.77	1.00	1.00	1.00	0.26	0.26	0.26	0.00	0.26	0.26
Sat Flow, veh/h	327	2829	331	575	2601	53	760	3154	1285	0	2860	357
Grp Volume(v), veh/h	85	376	378	149	762	797	54	423	21	0	330	327
Grp Sat Flow(s),veh/h/ln	327	1577	1582	575	1299	1355	760	1577	1285	0	1577	1556
Q Serve(g_s), s	8.1	7.0	7.1	3.9	0.0	0.0	6.2	11.5	1.2	0.0	19.6	19.7
Cycle Q Clear(g_c), s	8.5	7.0	7.1	11.6	0.0	0.0	25.9	11.5	1.2	0.0	19.6	19.7
Prop In Lane	1.00		0.21	1.00		0.04	1.00		1.00	0.00		0.23
Lane Grp Cap(c), veh/h	72	1222	1227	72	1007	1050	119	817	333	0	408	403
V/C Ratio(X)	1.18	0.31	0.31	2.07	0.76	0.76	0.45	0.52	0.06	0.00	0.81	0.81
Avail Cap(c_a), veh/h	324	1222	1226	474	1007	1050	119	817	333	0	408	403
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.40	0.40	0.40	0.90	0.90	0.90	0.00	0.09	0.09
Uniform Delay (d), s/veh	50.0	3.5	3.5	38.7	0.0	0.0	47.3	31.7	27.9	0.0	34.7	34.8
Incr Delay (d2), s/veh	161.8	0.7	0.7	498.2	2.2	2.1	2.4	0.5	0.1	0.0	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.2	0.2	0.0	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	2.5	2.5	11.7	0.8	0.8	1.4	4.4	0.4	0.0	7.6	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	211.8	4.3	4.3	537.0	2.9	2.8	49.8	32.2	28.0	0.0	35.8	36.0
LnGrp LOS	F	A	A	F	A	A	D	C	C	A	D	D
Approach Vol, veh/h		839			1708			498			657	
Approach Delay, s/veh		25.3			49.4			33.9			35.9	
Approach LOS		C			D			C			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		83.0		31.0		83.0		31.0				
Change Period (Y+Rc), s		5.1		* 5.1		5.1		5.1				
Max Green Setting (Gmax), s		64.3		* 26		64.3		25.5				
Max Q Clear Time (g_c+I1), s		10.5		27.9		13.6		21.7				
Green Ext Time (p_c), s		17.3		0.0		38.6		1.5				
Intersection Summary												
HCM 6th Ctrl Delay			39.5									
HCM 6th LOS			D									

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	561	80	80	1433	120	31	80	40	220	290	90
Future Volume (veh/h)	10	561	80	80	1433	120	31	80	40	220	290	90
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	0.99		0.97	0.95		0.92	0.94		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1660	1660	1660	1367	1367	1367	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	10	567	72	81	1447	95	31	81	40	222	293	75
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	39	1402	186	74	1501	647	287	463	207	407	1022	430
Arrive On Green	1.00	1.00	1.00	0.58	0.58	0.58	0.23	0.23	0.23	0.07	0.32	0.32
Sat Flow, veh/h	4	2315	332	640	2598	1120	957	2055	921	1581	3154	1328
Grp Volume(v), veh/h	337	0	312	81	1447	95	31	60	61	222	293	75
Grp Sat Flow(s),veh/h/ln	1214	0	1437	640	1299	1120	957	1577	1398	1581	1577	1328
Q Serve(g_s), s	4.7	0.0	0.0	6.1	53.1	3.9	2.6	3.1	3.5	6.9	6.9	4.0
Cycle Q Clear(g_c), s	57.8	0.0	0.0	6.1	53.1	3.9	2.6	3.1	3.5	6.9	6.9	4.0
Prop In Lane	0.03		0.23	1.00		1.00	1.00		0.66	1.00		1.00
Lane Grp Cap(c), veh/h	735	0	832	74	1501	647	287	355	315	407	1022	430
V/C Ratio(X)	0.46	0.00	0.37	1.09	0.96	0.15	0.11	0.17	0.19	0.55	0.29	0.17
Avail Cap(c_a), veh/h	739	0	831	442	1501	647	340	442	392	407	1196	503
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.00	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.8	0.0	0.0	49.9	20.8	9.7	31.0	31.2	31.4	29.6	25.2	24.2
Incr Delay (d2), s/veh	1.9	0.0	1.2	131.8	16.1	0.5	0.2	0.2	0.3	0.9	0.2	0.2
Initial Q Delay(d3),s/veh	0.6	0.0	0.4	0.0	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.4	4.6	21.0	1.0	0.6	1.2	1.2	1.8	2.6	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.4	0.0	1.6	181.7	45.7	10.2	31.2	31.4	31.7	30.4	25.3	24.4
LnGrp LOS	A	A	A	F	D	B	C	C	C	C	C	C
Approach Vol, veh/h		649			1623			152			590	
Approach Delay, s/veh		4.6			50.5			31.5			27.1	
Approach LOS		A			D			C			C	

Timer - Assigned Phs		2		4		6	7	8
Phs Duration (G+Y+Rc), s		62.9		37.1		62.9	9.9	27.2
Change Period (Y+Rc), s		5.1		* 4.7		5.1	3.0	* 4.7
Max Green Setting (Gmax), s		52.3		* 38		52.3	6.9	* 28
Max Q Clear Time (g_c+I1), s		59.8		8.9		55.1	8.9	5.5
Green Ext Time (p_c), s		0.0		2.4		0.0	0.0	0.8

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

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	70	350	70	100	523	0	0	593	150
Future Volume (veh/h)	0	0	0	70	350	70	100	523	0	0	593	150
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.91	1.00		1.00	1.00		0.96
Parking Bus, Adj				0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	0.81
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1660	1660	1660	1660	1660	0	0	1660	1660
Adj Flow Rate, veh/h				75	376	52	108	562	0	0	638	126
Peak Hour Factor				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				124	646	93	379	1715	0	0	1280	252
Arrive On Green				0.32	0.32	0.32	0.54	0.54	0.00	0.00	0.54	0.54
Sat Flow, veh/h				387	2023	292	694	3237	0	0	2437	464
Grp Volume(v), veh/h				268	0	235	108	562	0	0	427	337
Grp Sat Flow(s),veh/h/ln				1384	0	1318	694	1577	0	0	1577	1240
Q Serve(g_s), s				9.8	0.0	8.9	6.9	5.9	0.0	0.0	10.2	10.2
Cycle Q Clear(g_c), s				9.8	0.0	8.9	17.1	5.9	0.0	0.0	10.2	10.2
Prop In Lane				0.28		0.22	1.00		0.00	0.00		0.37
Lane Grp Cap(c), veh/h				442	0	421	379	1715	0	0	858	674
V/C Ratio(X)				0.61	0.00	0.56	0.28	0.33	0.00	0.00	0.50	0.50
Avail Cap(c_a), veh/h				595	0	567	379	1715	0	0	858	674
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.48	0.48
Uniform Delay (d), s/veh				17.2	0.0	16.9	13.9	7.6	0.0	0.0	8.6	8.6
Incr Delay (d2), s/veh				1.3	0.0	1.2	1.9	0.5	0.0	0.0	1.0	1.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.1	0.0	2.6	1.2	1.8	0.0	0.0	3.1	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				18.6	0.0	18.1	15.8	8.1	0.0	0.0	9.6	9.8
LnGrp LOS				B	A	B	B	A	A	A	A	A
Approach Vol, veh/h					503			670			764	
Approach Delay, s/veh					18.3			9.3			9.7	
Approach LOS					B			A			A	

Timer - Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		36.8				36.8		23.2
Change Period (Y+Rc), s		* 4.2				* 4.2		4.0
Max Green Setting (Gmax), s		* 26				* 26		25.8
Max Q Clear Time (g_c+I1), s		19.1				12.2		11.8
Green Ext Time (p_c), s		3.8				7.0		2.7

Intersection Summary			
HCM 6th Ctrl Delay			11.8
HCM 6th LOS			B

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	51	350	43	30	92	0	10	250	190
Future Volume (vph)	0	0	0	51	350	43	30	92	0	10	250	190
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)					3.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			0.99	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.99		1.00	1.00			0.94	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					2870		1568	2885			2692	
Flt Permitted					0.99		0.25	1.00			0.95	
Satd. Flow (perm)					2870		413	2885			2556	
Peak-hour factor, PHF	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Adj. Flow (vph)	0	0	0	73	500	61	43	131	0	14	357	271
RTOR Reduction (vph)	0	0	0	0	11	0	0	0	0	0	188	0
Lane Group Flow (vph)	0	0	0	0	623	0	43	131	0	0	454	0
Confl. Bikes (#/hr)			1			1			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)				6	6	4		12			11	11
Turn Type				Perm	NA		Perm	NA		Perm	NA	
Protected Phases					6			8			4	
Permitted Phases				6			8			4		
Actuated Green, G (s)					23.0		16.0	16.0			16.0	
Effective Green, g (s)					23.0		16.0	16.0			16.0	
Actuated g/C Ratio					0.33		0.23	0.23			0.23	
Clearance Time (s)					3.0		4.0	4.0			4.0	
Vehicle Extension (s)					2.0		2.0	2.0			2.0	
Lane Grp Cap (vph)					943		94	659			584	
v/s Ratio Prot								0.05				
v/s Ratio Perm					0.22		0.10				c0.18	
v/c Ratio					0.66		0.46	0.20			0.78	
Uniform Delay, d1					20.2		23.3	21.8			25.3	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					3.6		15.2	0.7			9.8	
Delay (s)					23.8		38.5	22.5			35.1	
Level of Service					C		D	C			D	
Approach Delay (s)		0.0			23.8			26.4			35.1	
Approach LOS		A			C			C			D	

Intersection Summary			
HCM 2000 Control Delay	29.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	47.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	331	0	0	0	0	0	0	114
Future Vol, veh/h	0	0	0	0	331	0	0	0	0	0	0	114
Conflicting Peds, #/hr	0	0	0	79	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	404	0	0	0	0	0	0	139

Major/Minor	Major2			Minor2		
Conflicting Flow All	79	0	0	-	483	202
Stage 1	-	-	-	-	404	-
Stage 2	-	-	-	-	79	-
Critical Hdwy	4.16	-	-	-	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.23	-	-	-	4.03	3.33
Pot Cap-1 Maneuver	1510	-	0	0	480	802
Stage 1	-	-	0	0	595	-
Stage 2	-	-	0	0	-	-
Platoon blocked, %		-				
Mov Cap-1 Maneuver	1510	-	-	-	0	802
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

Approach	WB	SB
HCM Control Delay, s	0	10.4
HCM LOS		B

Minor Lane/Major Mvmt	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	1510	-	-	802
HCM Lane V/C Ratio	-	-	-	0.173
HCM Control Delay (s)	0	-	0	10.4
HCM Lane LOS	A	-	A	B
HCM 95th %tile Q(veh)	0	-	-	0.6

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	713	68	54	1580	0	0
Future Vol, veh/h	713	68	54	1580	0	0
Conflicting Peds, #/hr	0	31	31	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	759	72	57	1681	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	862	0	-	447
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.16	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.23	-	-	3.33
Pot Cap-1 Maneuver	-	-	769	-	0	556
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	746	-	-	540
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	746	-
HCM Lane V/C Ratio	-	-	-	0.077	-
HCM Control Delay (s)	0	-	-	10.2	-
HCM Lane LOS	A	-	-	B	-
HCM 95th %tile Q(veh)	-	-	-	0.2	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	1843	54	80	1695	60	0	240	64	40	171	50
Future Volume (veh/h)	40	1843	54	80	1695	60	0	240	64	40	171	50
Initial Q (Qb), veh	0	15	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.97	0.99		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	0	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	44	2048	58	89	1883	64	0	267	62	44	190	37
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, %	3	3	3	3	3	3	0	3	3	3	3	3
Cap, veh/h	72	1744	28	72	1741	31	0	594	135	218	739	294
Arrive On Green	0.67	0.67	0.67	0.67	0.67	0.67	0.00	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	185	2578	73	158	2561	86	0	2620	577	1028	3154	1258
Grp Volume(v), veh/h	44	1026	1080	89	949	998	0	164	165	44	190	37
Grp Sat Flow(s),veh/h/ln	185	1299	1352	158	1299	1349	0	1577	1537	1028	1577	1258
Q Serve(g_s), s	0.0	66.7	66.7	0.0	66.7	66.7	0.0	8.9	9.2	3.8	4.9	2.3
Cycle Q Clear(g_c), s	66.7	66.7	66.7	66.7	66.7	66.7	0.0	8.9	9.2	13.0	4.9	2.3
Prop In Lane	1.00		0.05	1.00		0.06	0.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	72	866	906	72	866	905	0	369	360	218	739	294
V/C Ratio(X)	0.61	1.18	1.19	1.24	1.10	1.10	0.00	0.44	0.46	0.20	0.26	0.13
Avail Cap(c_a), veh/h	72	866	901	72	866	899	0	420	409	251	839	335
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.09	0.09	0.09	0.00	0.76	0.76	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	16.7	16.7	50.0	16.7	16.7	0.0	32.7	32.9	38.5	31.2	30.2
Incr Delay (d2), s/veh	33.0	94.7	97.5	117.0	44.8	48.2	0.0	0.6	0.7	0.5	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	31.2	29.8	0.0	20.8	19.9	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	46.3	48.8	4.1	31.8	33.9	0.0	3.5	3.5	1.0	1.9	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.0	142.6	143.9	167.0	82.3	84.8	0.0	33.4	33.6	38.9	31.4	30.4
LnGrp LOS	F	F	F	F	F	F	A	C	C	D	C	C
Approach Vol, veh/h		2150			2036			329			271	
Approach Delay, s/veh		142.0			87.2			33.5			32.5	
Approach LOS		F			F			C			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		72.1		27.9		72.1		27.9				
Change Period (Y+Rc), s		5.4		4.5		5.4		4.5				
Max Green Setting (Gmax), s		63.5		26.6		63.5		26.6				
Max Q Clear Time (g_c+I1), s		68.7		15.0		68.7		11.2				
Green Ext Time (p_c), s		0.0		1.2		0.0		1.8				
Intersection Summary												
HCM 6th Ctrl Delay			105.0									
HCM 6th LOS			F									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	1682	44	97	1660	50	81	444	177	40	374	70
Future Volume (veh/h)	51	1682	44	97	1660	50	81	444	177	40	374	70
Initial Q (Qb), veh	0	15	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	0.99		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1367	1367	1367	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	57	1869	48	108	1844	54	90	493	184	44	416	65
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, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	72	1644	22	72	1641	25	190	593	220	130	723	112
Arrive On Green	0.63	0.63	0.63	0.63	0.63	0.63	0.53	0.53	0.53	0.27	0.27	0.27
Sat Flow, veh/h	194	2586	66	191	2576	75	898	2233	827	752	2725	422
Grp Volume(v), veh/h	57	934	983	108	925	973	90	347	330	44	239	242
Grp Sat Flow(s),veh/h/ln	194	1299	1353	191	1299	1352	898	1577	1483	752	1577	1570
Q Serve(g_s), s	0.0	62.7	62.7	0.0	62.7	62.7	9.2	18.5	18.8	5.7	13.1	13.4
Cycle Q Clear(g_c), s	62.7	62.7	62.7	62.7	62.7	62.7	22.6	18.5	18.8	24.5	13.1	13.4
Prop In Lane	1.00		0.05	1.00		0.06	1.00		0.56	1.00		0.27
Lane Grp Cap(c), veh/h	72	814	852	72	814	852	190	419	394	130	419	417
V/C Ratio(X)	0.79	1.15	1.15	1.50	1.14	1.14	0.47	0.83	0.84	0.34	0.57	0.58
Avail Cap(c_a), veh/h	72	814	848	72	814	847	191	420	394	131	420	418
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	0.61	0.61	0.61	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.0	18.7	18.7	50.0	18.7	18.7	28.7	21.6	21.6	45.2	31.8	31.9
Incr Delay (d2), s/veh	7.9	68.1	70.5	284.3	76.4	77.9	1.1	8.4	9.5	1.5	1.9	2.0
Initial Q Delay(d3),s/veh	0.0	33.2	31.7	0.0	22.1	21.1	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	38.7	40.8	7.5	38.1	40.0	1.8	5.8	5.6	1.1	5.2	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.9	119.9	120.9	334.3	117.2	117.7	29.8	29.9	31.1	46.7	33.7	33.9
LnGrp LOS	E	F	F	F	F	F	C	C	C	D	C	C
Approach Vol, veh/h		1974			2006			767			525	
Approach Delay, s/veh		118.6			129.2			30.4			34.9	
Approach LOS		F			F			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	68.1	31.9	68.1	31.9
Change Period (Y+Rc), s	5.4	5.4	5.4	5.4
Max Green Setting (Gmax), s	62.6	26.6	62.6	26.6
Max Q Clear Time (g_c+I1), s	64.7	26.5	64.7	24.6
Green Ext Time (p_c), s	0.0	0.0	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	101.5
HCM 6th LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1434	100	100	830	50	56	265	104	55	200	60
Future Volume (vph)	0	1434	100	100	830	50	56	265	104	55	200	60
Ideal Flow (vphpl)	1400	1400	1400	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Lane Util. Factor		0.95			0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		0.98			0.98		1.00	0.92		1.00	0.93	
Flpb, ped/bikes		1.00			1.00		0.80	1.00		0.86	1.00	
Frt		0.99			0.99		1.00	0.96		1.00	0.97	
Flt Protected		1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		2515			3038		1248	2568		1341	2805	
Flt Permitted		1.00			0.54		0.53	1.00		0.40	1.00	
Satd. Flow (perm)		2515			1658		694	2568		568	2805	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	1509	105	105	874	53	59	279	109	58	211	63
RTOR Reduction (vph)	0	4	0	0	4	0	0	41	0	0	26	0
Lane Group Flow (vph)	0	1610	0	0	1028	0	59	347	0	58	248	0
Confl. Peds. (#/hr)	423		174	174		423	282		215	215		282
Confl. Bikes (#/hr)			6			1			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)								8	8			
Turn Type		NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases				6			8			4		
Actuated Green, G (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Effective Green, g (s)		59.5			67.2		23.2	23.2		23.2	23.2	
Actuated g/C Ratio		0.60			0.67		0.23	0.23		0.23	0.23	
Clearance Time (s)		5.1			5.1		4.5	4.5		4.5	4.5	
Vehicle Extension (s)		5.0			5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1496			1176		161	595		131	650	
v/s Ratio Prot		c0.64			c0.04			c0.13			0.09	
v/s Ratio Perm					0.55		0.09			0.10		
v/c Ratio		1.08			0.87		0.37	0.58		0.44	0.38	
Uniform Delay, d1		20.2			13.0		32.2	34.1		32.9	32.4	
Progression Factor		1.00			0.93		1.00	1.00		0.60	0.52	
Incremental Delay, d2		46.6			6.4		1.4	1.5		1.4	0.2	
Delay (s)		66.9			18.5		33.6	35.6		21.1	17.1	
Level of Service		E			B		C	D		C	B	
Approach Delay (s)		66.9			18.5			35.3			17.8	
Approach LOS		E			B			D			B	

Intersection Summary			
HCM 2000 Control Delay	43.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.8
Intersection Capacity Utilization	129.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	1299	157	106	838	50	86	543	170	0	459	76
Future Volume (veh/h)	140	1299	157	106	838	50	86	543	170	0	459	76
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.90	1.00		0.90	0.96		0.82	1.00		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1367	1367	1367	1660	1660	1660	1660	1660	1660	0	1660	1660
Adj Flow Rate, veh/h	147	1367	158	112	882	49	91	572	158	0	483	67
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, %	3	3	3	3	3	3	3	3	3	0	3	3
Cap, veh/h	73	1810	197	72	2343	128	150	817	299	0	702	96
Arrive On Green	0.77	0.77	0.77	1.00	1.00	1.00	0.26	0.26	0.26	0.00	0.26	0.26
Sat Flow, veh/h	480	2319	265	339	3019	168	814	3154	1156	0	2792	372
Grp Volume(v), veh/h	147	759	766	112	461	470	91	572	158	0	279	271
Grp Sat Flow(s),veh/h/ln	480	1299	1286	339	1577	1609	814	1577	1156	0	1577	1503
Q Serve(g_s), s	10.1	31.6	33.2	25.8	0.0	0.0	9.6	16.4	11.7	0.0	15.9	16.3
Cycle Q Clear(g_c), s	10.5	31.6	33.2	60.6	0.0	0.0	25.9	16.4	11.7	0.0	15.9	16.3
Prop In Lane	1.00		0.21	1.00		0.10	1.00		1.00	0.00		0.25
Lane Grp Cap(c), veh/h	73	1007	999	72	1222	1248	150	817	299	0	408	389
V/C Ratio(X)	2.02	0.75	0.77	1.55	0.38	0.38	0.61	0.70	0.53	0.00	0.68	0.70
Avail Cap(c_a), veh/h	442	1007	996	217	1222	1247	150	817	299	0	408	389
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.86	0.86	0.86	0.94	0.94	0.94	0.00	0.38	0.38
Uniform Delay (d), s/veh	50.0	6.5	6.6	38.7	0.0	0.0	45.9	33.5	31.8	0.0	33.4	33.5
Incr Delay (d2), s/veh	505.2	5.2	5.6	298.8	0.8	0.7	6.4	2.5	1.6	0.0	1.8	2.1
Initial Q Delay(d3),s/veh	0.0	0.7	0.8	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.0	9.0	9.3	7.7	0.3	0.3	2.5	6.5	3.4	0.0	6.3	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	555.2	12.5	13.0	337.5	1.0	0.9	52.2	36.1	33.4	0.0	35.2	35.6
LnGrp LOS	F	B	B	F	A	A	D	D	C	A	D	D
Approach Vol, veh/h		1672			1043			821			550	
Approach Delay, s/veh		60.4			37.1			37.3			35.4	
Approach LOS		E			D			D			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		83.0		31.0		83.0		31.0				
Change Period (Y+Rc), s		5.1		* 5.1		5.1		5.1				
Max Green Setting (Gmax), s		64.3		* 26		64.3		25.5				
Max Q Clear Time (g_c+I1), s		35.2		27.9		62.6		18.3				
Green Ext Time (p_c), s		24.5		0.0		1.4		2.1				
Intersection Summary												
HCM 6th Ctrl Delay			46.5									
HCM 6th LOS			D									
Notes												

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1218	121	80	950	280	53	250	90	200	200	40
Future Volume (veh/h)	0	1218	121	80	950	280	53	250	90	200	200	40
Initial Q (Qb), veh	0	10	0	0	10	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	0.99		0.95	0.92		0.89	0.95		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1367	1367	1660	1660	1660	1660	1660	1660	1660	1660	1660
Adj Flow Rate, veh/h	0	1256	118	82	979	191	55	258	93	206	206	13
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	0	1371	92	72	1739	738	339	559	193	326	1107	454
Arrive On Green	0.00	1.00	1.00	0.55	0.55	0.55	0.25	0.25	0.25	0.07	0.35	0.35
Sat Flow, veh/h	0	2457	224	390	3154	1339	1059	2221	766	1581	3154	1295
Grp Volume(v), veh/h	0	681	693	82	979	191	55	180	171	206	206	13
Grp Sat Flow(s),veh/h/ln	0	1299	1313	390	1577	1339	1059	1577	1410	1581	1577	1295
Q Serve(g_s), s	0.0	0.0	0.0	12.0	20.2	7.5	4.1	9.6	10.3	6.9	4.5	0.7
Cycle Q Clear(g_c), s	0.0	0.0	0.0	12.0	20.2	7.5	4.1	9.6	10.3	6.9	4.5	0.7
Prop In Lane	0.00		0.17	1.00		1.00	1.00		0.54	1.00		1.00
Lane Grp Cap(c), veh/h	0	716	731	72	1739	738	339	397	355	326	1107	454
V/C Ratio(X)	0.00	0.95	0.95	1.14	0.56	0.26	0.16	0.45	0.48	0.63	0.19	0.03
Avail Cap(c_a), veh/h	0	716	724	287	1739	738	368	442	395	326	1196	491
HCM Platoon Ratio	1.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.30	0.30	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	50.0	15.0	11.7	29.5	31.6	31.9	29.3	22.5	21.3
Incr Delay (d2), s/veh	0.0	10.1	9.5	148.7	1.3	0.9	0.2	0.8	1.0	3.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	7.2	6.4	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.4	3.2	4.8	8.0	2.4	1.1	3.8	3.6	1.9	1.7	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.3	16.0	198.7	16.9	12.6	29.7	32.4	32.9	32.3	22.6	21.3
LnGrp LOS	A	B	B	F	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1374			1252			406			425	
Approach Delay, s/veh		16.6			28.1			32.2			27.3	
Approach LOS		B			C			C			C	
Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		60.2		39.8		60.2	9.9	29.9				
Change Period (Y+Rc), s		5.1		* 4.7		5.1	3.0	* 4.7				
Max Green Setting (Gmax), s		52.3		* 38		52.3	6.9	* 28				
Max Q Clear Time (g_c+I1), s		2.0		6.5		22.2	8.9	12.3				
Green Ext Time (p_c), s		29.9		1.5		19.1	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay			23.9									
HCM 6th LOS			C									

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	110	172	71	140	460	0	0	547	103
Future Volume (veh/h)	0	0	0	110	172	71	140	460	0	0	547	103
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.79	0.95		1.00	1.00		0.77
Parking Bus, Adj				0.85	1.00	0.85	1.00	1.00	1.00	1.00	1.00	0.81
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1660	1660	1660	1660	1660	0	0	1660	1660
Adj Flow Rate, veh/h				116	181	55	147	484	0	0	576	83
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				308	494	153	358	1547	0	0	1176	168
Arrive On Green				0.37	0.37	0.37	0.49	0.49	0.00	0.00	0.49	0.49
Sat Flow, veh/h				827	1325	410	727	3237	0	0	2481	342
Grp Volume(v), veh/h				191	0	161	147	484	0	0	377	282
Grp Sat Flow(s),veh/h/ln				1362	0	1200	727	1577	0	0	1577	1163
Q Serve(g_s), s				6.1	0.0	5.8	10.2	5.5	0.0	0.0	9.6	9.8
Cycle Q Clear(g_c), s				6.1	0.0	5.8	20.0	5.5	0.0	0.0	9.6	9.8
Prop In Lane				0.61		0.34	1.00		0.00	0.00		0.29
Lane Grp Cap(c), veh/h				508	0	447	358	1547	0	0	774	571
V/C Ratio(X)				0.38	0.00	0.36	0.41	0.31	0.00	0.00	0.49	0.49
Avail Cap(c_a), veh/h				585	0	516	358	1547	0	0	774	571
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.50	0.50
Uniform Delay (d), s/veh				13.7	0.0	13.6	17.0	9.2	0.0	0.0	10.2	10.3
Incr Delay (d2), s/veh				0.5	0.0	0.5	3.5	0.5	0.0	0.0	1.1	1.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.8	0.0	1.5	1.9	1.8	0.0	0.0	3.1	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				14.2	0.0	14.1	20.5	9.7	0.0	0.0	11.3	11.8
LnGrp LOS				B	A	B	C	A	A	A	B	B
Approach Vol, veh/h					352			631			659	
Approach Delay, s/veh					14.2			12.2			11.5	
Approach LOS					B			B			B	

Timer - Assigned Phs	2	6	8
Phs Duration (G+Y+Rc), s	33.6	33.6	26.4
Change Period (Y+Rc), s	* 4.2	* 4.2	4.0
Max Green Setting (Gmax), s	* 26	* 26	25.8
Max Q Clear Time (g_c+I1), s	22.0	11.8	8.1
Green Ext Time (p_c), s	2.2	6.2	2.1

Intersection Summary	
HCM 6th Ctrl Delay	12.4
HCM 6th LOS	B

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	90	202	158	70	317	0	0	390	130
Future Volume (vph)	0	0	0	90	202	158	70	317	0	0	390	130
Ideal Flow (vphpl)	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
Total Lost time (s)					3.0		4.0	4.0			4.0	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			1.00	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.95		1.00	1.00			0.96	
Flt Protected					0.99		0.95	1.00			1.00	
Satd. Flow (prot)					2738		1568	2885			2775	
Flt Permitted					0.99		0.27	1.00			1.00	
Satd. Flow (perm)					2738		447	2885			2775	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	95	213	166	74	334	0	0	411	137
RTOR Reduction (vph)	0	0	0	0	99	0	0	0	0	0	46	0
Lane Group Flow (vph)	0	0	0	0	375	0	74	334	0	0	502	0
Confl. Bikes (#/hr)			1			1			1			1
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Parking (#/hr)				6	6	4		12			11	11
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					6			8			4	
Permitted Phases				6			8					
Actuated Green, G (s)					23.0		16.0	16.0			16.0	
Effective Green, g (s)					23.0		16.0	16.0			16.0	
Actuated g/C Ratio					0.33		0.23	0.23			0.23	
Clearance Time (s)					3.0		4.0	4.0			4.0	
Vehicle Extension (s)					2.0		2.0	2.0			2.0	
Lane Grp Cap (vph)					899		102	659			634	
v/s Ratio Prot								0.12			c0.18	
v/s Ratio Perm					0.14		0.17					
v/c Ratio					0.42		0.73	0.51			0.79	
Uniform Delay, d1					18.3		25.0	23.6			25.4	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					1.4		36.1	2.8			9.8	
Delay (s)					19.7		61.1	26.3			35.2	
Level of Service					B		E	C			D	
Approach Delay (s)		0.0			19.7			32.6			35.2	
Approach LOS		A			B			C			D	

Intersection Summary			
HCM 2000 Control Delay	29.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	49.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	385	0	0	0	0	0	0	74
Future Vol, veh/h	0	0	0	0	385	0	0	0	0	0	0	74
Conflicting Peds, #/hr	0	0	0	251	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	0	0	0	0	405	0	0	0	0	0	0	78

Major/Minor	Major2			Minor2		
Conflicting Flow All	251	0	0	-	656	203
Stage 1	-	-	-	-	405	-
Stage 2	-	-	-	-	251	-
Critical Hdwy	4.16	-	-	-	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.23	-	-	-	4.03	3.33
Pot Cap-1 Maneuver	1304	-	0	0	382	801
Stage 1	-	-	0	0	594	-
Stage 2	-	-	0	0	-	-
Platoon blocked, %		-				
Mov Cap-1 Maneuver	1304	-	-	-	0	801
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

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

Minor Lane/Major Mvmt	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	1304	-	-	801
HCM Lane V/C Ratio	-	-	-	0.097
HCM Control Delay (s)	0	-	0	10
HCM Lane LOS	A	-	A	B
HCM 95th %tile Q(veh)	0	-	-	0.3

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1444	54	33	970	0	0
Future Vol, veh/h	1444	54	33	970	0	0
Conflicting Peds, #/hr	0	100	100	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1504	56	34	1010	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1660	0	-	880
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.16	-	-	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.23	-	-	3.33
Pot Cap-1 Maneuver	-	-	380	-	0	288
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	344	-	-	261
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	344	-
HCM Lane V/C Ratio	-	-	-	0.1	-
HCM Control Delay (s)	0	-	-	16.6	-
HCM Lane LOS	A	-	-	C	-
HCM 95th %tile Q(veh)	-	-	-	0.3	-

Appendix C:

Detailed Project Trip Generation

APPENDIX C
CHEVAL BLANC HOTEL, CLUB & MIXED USE PROJECT
PROPOSED PROJECT TRIP GENERATION ESTIMATES

Trip Generation Estimates																	
			Trip Generation Rates [a]								**Estimated Trip Generation**						
Land Use	**ITE#**	**Size**	Daily Rate	AM Peak Hour			PM Peak Hour			Trip Rate Unit	**Weekday Daily**	**AM Peak Hour**			**PM Peak Hour**		
				Rate	% In	% Out	Rate	% In	% Out			**In**	**Out**	**Total**	**In**	**Out**	**Total**
<u>Proposed Project</u>																	
Hotel	310	115 rooms	8.36	0.47	59%	41%	0.60	51%	49%	per room	961	32	22	54	35	34	69
TNC [e]											640	21	15	36	23	23	46
Employee											125	4	3	7	5	4	9
Valet											196	7	4	11	7	7	14
Total check											961	32	22	54	35	34	69
Private Membership Club	[c]	500 members	0.36	0.04	80%	20%	0.08	80%	20%	member	180	16	4	20	32	8	40
TNC [e]											0	0	0	0	0	0	0
Employee											23	2	1	3	4	1	5
Valet											157	14	3	17	28	7	35
Total check											180	16	4	20	32	8	40
Quality Restaurant	931	25.094 ksf	83.84	0.73	50%	50%	7.8	67%	33%	per ksf	2,104	9	9	18	131	65	196
Less Internal Capture [b]			20%	20%	20%	20%	0%	20%	20%		*(421)*	*(2)*	*(2)*	*(4)*	*(26)*	*(13)*	*(39)*
New Trips											1,683	7	7	14	105	52	157
TNC [e]											842	4	4	8	52	26	78
Employee											252	1	1	2	16	8	24
Valet											589	2	2	4	37	18	55
Total check											1,683	7	7	14	105	52	157
Retail	820	24.976 ksf	37.75	0.94	62%	38%	3.81	48%	52%	per ksf	943	14	9	23	46	49	95
Less Internal Capture [b]			20%	20%	20%	20%	20%	20%	20%		*(189)*	*(3)*	*(2)*	*(5)*	*(9)*	*(10)*	*(19)*
Less Pass-By			30%	30%	30%	30%	30%	30%	30%		*(226)*	*(3)*	*(2)*	*(5)*	*(11)*	*(12)*	*(23)*
New Trips											528	8	5	13	26	27	53
TNC [e]											0	0	0	0	0	0	0
Employee											100	2	1	2	5	5	10
Valet											428	6	4	11	21	22	43
Total check											528	8	5	13	26	27	53
Day Spa [d]	918	12.936 ksf	14.50	1.21	50%	50%	1.45	17%	83%	per ksf	188	8	8	16	3	16	19
Less Internal Capture [b]			20%	20%	20%	20%	0%	20%	20%		*(37)*	*(1)*	*(2)*	*(3)*	*(1)*	*(3)*	*(4)*
New Trips											151	7	6	13	2	13	15
TNC [e]											0	0	0	0	0	0	0
Employee											20	1	1	2	0	2	2
Valet											131	6	5	11	2	11	13
Total check											151	7	6	13	2	13	15
TOTAL ESTIMATED PROJECT TRIPS (NEW TRIPS)											**3,503**	**70**	**44**	**114**	**200**	**134**	**334**
TOTAL ESTIMATED PROJECT TRIPS (EMPLOYEE TRIPS)											521	10	6	16	30	20	50
TOTAL ESTIMATED PROJECT TRIPS (VALET)											1,501	35	19	54	95	65	160
TOTAL ESTIMATED PROJECT TRIPS (UNADJUSTED TNC TRIPS)											1,482	25	19	44	75	49	124
TOTAL ESTIMATED PROJECT TRIPS (ADJUSTED TNC TRIPS)											1,482	25	25	50	75	75	150
ACTIVE USES CREDIT											-1,142	-18	-10	-28	-55	-60	-115
TOTAL ADJUSTED PROJECT TRIPS											**2,361**	**52**	**40**	**92**	**145**	**100**	**245**

<u>Notes:</u>
[a] Source: ITE Trip Generation Manual, 10th Edition, 2017, except where noted.
[b] Internal capture represents the percentage of trips between land uses that occur within the site without requiring a vehicle trip. Internal capture rates are derived from "Parking Demand Analysis Study - Cheval Blanc Hotel in the City of Beverly Hills, CA", Kimley Horn (2020).
[c] Private membeship member trip rates derived from "Parking Demand Analysis Study - Cheval Blanc Hotel in the City of Beverly Hills, CA", Kimley Horn (2020).
[d] No daily trip rate is provided by ITE for Land Use 918 - Hair Salon. Daily rate assumes that the PM peak hour trip rate is equal to 10% of the daily trip rate.
[e] The proliferation of shared mobility transportation network companies (TNCs), such as Lyft and Uber, in recent years is important to consider in a project of this type and size. Pick-up and drop-off trips, such as those utilizing TNC services, do not utilize site parking and result in an additional trip generated compared to patrons who drive themselves and park their own cars at the site. In order to account for TNCs, it was assumed that TNCs would account for 50% of the vehicle trips generated by the restaurant, and 66.6% of the vehicle trips generated by the hotel, based on observed drive ratios provided in the Parking Demand Analysis Study technical memorandum (July 16, 2020). Where inbound and outbound trips were unequal, the higher of the two calculations was assumed for both directions to account for TNCs that drop off a patron and leave the project site without

Appendix H.3

Parking Demand Analysis Study

AP EXHIBIT 1

Kimley»Horn

TECHNICAL MEMORANDUM

To:	Jill Wagner, Gruen Associates
From:	Matt Stewart, P.E. Kimley-Horn and Associates, Inc.
Date:	January 6, 2022
Subject:	Parking Demand Analysis Study – Cheval Blanc Hotel in the City of Beverly Hills, CA

Table of Contents

Tables

Appendices

I. INTRODUCTION

Kimley-Horn and Associates, Inc. ("Kimley-Horn") was contracted by Gruen Associates to prepare a parking demand analysis for the Cheval Blanc Hotel located at 468 North Rodeo Drive, Beverly Hills, CA.

The proposed project includes a 115-room hotel, three retail spaces totaling 24,976 SF, four indoor restaurant spaces totaling 20,334 SF[1], two outdoor restaurant spaces totaling 4,760 SF[2], and an 8,198 SF member's club. Additional appurtenant uses that are considered to be part of the hotel include the hotel lobbies, a spa, a fitness center, a pool, a central kitchen, employee facilities, and hallways.

Projected parking demand for the project was calculated using the following two methodologies:

1. **City Code Parking Requirement** – Number of parking spaces required by the Beverly Hills City Code. The number of spaces required is calculated with no parking credits, with parking credits allowed by the City Code, and with time-of-day demand as recommended by Urban Land Institute's *Shared Parking*, 3rd Edition.
2. **Urban Land Institute Shared Parking Demand** – An analysis of the number of spaces required by the project overall, accounting for a single shared parking supply that would accommodate all portions of the project and their unique time-of-day parking demands.

II. PARKING REQUIRED BY CITY CODE

The number of parking spaces required for the proposed elements of the Cheval Blanc Hotel project was calculated by referencing the Beverly Hills City Code. Section 10-3-2730 describes parking requirements for all developments in Beverly Hills while Section 10-3-2866 describe parking requirements for developments that include hotels. The Code sections below apply to portions of the Cheval Blanc Hotel project:

- 10-3-2730B
  - "The aggregate amount of required parking space for each type of use shall not be less than the following:"
    - "**1. Hotels** – 1 space per rentable room or unit"[3]
    - "**8. Open air dining on private property** – Parking shall be provided as required for indoor dining pursuant to this section except that the planning commission may establish parking requirements for open air dining areas that are different than those set forth in this section if the planning commission determines that the open air dining area will generate a need for parking different than the amount of parking required by this section or the planning commission determines that parking demand will be met by means other than those means specified in this section"

[1] Four indoor restaurant spaces are comprised of: GF (5,666 SF), L2 (2,419 SF), L6 (6,716 SF), and L7 (5,533 SF).
[2] Two outdoor restaurant spaces are comprised of: L6 (2,500 SF) and L7 (2,260 SF).
[3] Hotel appurtenant uses such as lobbies, wellness (fitness center), spa, swimming pool and deck, central kitchen, employment facilities, office, corridors, and back of house are included in the hotel room ratio.

    - "**9. Eating and bar facilities not governed by subsections B5 through B7 of this section** – 1 space per 45 square feet of dining and bar floor area for the first 9,000 square feet of such area and 1 space per 65 square feet of dining and bar floor area in excess of 9,000 square feet. However, 25 percent of the spaces required to be provided for a building or structure by subsections B1 and B10 of this section may also be applied toward the requirements of this subsection"
        - Note that per Ordinance 19-O-2296, parking for larger restaurants and bars has been reduced to the same as for smaller restaurants (1 space per 350 square feet)
    - "**10. Commercial uses not otherwise specified in this section** – 1 space per 350 square feet of floor area"
- 10-3-2866A
    - "On-site parking space for hotel guestrooms as required by subsection 10-3-2730B1 of this chapter;"
- 10-3-2866B
    - "On-site parking for hotel restaurant and bar uses that are open to the public shall be provided as required by subsection 10-3-2730B9 of this chapter, except that the twenty five percent (25%) credit for parking set forth in that subsection shall not apply to a hotel restaurant or bar that is open to the public"

The City Code does not define a parking requirement for a member's club. To calculate the required parking for the member's club, the restaurant ratio was used for all member's club floor area, including back of house. **Table 1** below shows the parking requirement for the project with base parking requirement ratios.

Table 1 – City Code Parking Required (without parking credits)

Use	Unit	Ratio	Spaces Required (City Code)
Hotel	115 rooms	1 space / rentable room	115.0
Hotel Restaurant/Bar[1]	16,928 SF	1 space / 350 SF floor area	48.4
Restaurant/Bar[2]	8,166 SF	1 space / 350 SF floor area	23.3
Retail	24,976 SF	1 space / 350 SF floor area	71.4
Member's Club	8,198 SF	1 space / 350 SF floor area	23.4
Total			281.5

[1] - Hotel restaurant/Bar Includes 14,668 SF of restaurant/bar on 2nd, 6th, and 7th floors and 2,260 SF of private outdoor dining on L7. Compared to the Ground Floor restaurant, the 2nd Floor restaurant may be used more for hotel guests.
[2] - Restaurant/Bar includes 5,666 SF of restaurant/bar on Ground Floor and 2,500 SF of private outdoor dining on L6.

As shown in **Table 2**, the maximum number of parking spaces for the project required by City Code is 282.

Parking Credits

The Beverly Hills City Code includes the following credits that may be applied to parking requirements:

Retail and Hotel Combination

Section 10-3-2866 of the Beverly Hills City Code notes that a portion of the parking furnished for the hotel use may be credited to the parking required for the retail use:

- 10-3-2866D
    - "On-site parking for retail and other commercial uses as required by section 10-3-2730 of this chapter; provided, further:
        - Fifty percent (50%) of the parking furnished under subsection A (hotel rooms at 1 space/rentable room) of this section may be credited to the parking requirements under this subsection;
        - The parking requirements specified in this article include parking for any floor area used as an integral part of the designated use, and subsection 10-3-2730B10 of this chapter shall not be applicable to such areas;"

The number of parking spaces required for retail (71.4) would be reduced by half of the number of spaces required for the hotel (115). The retail parking requirement is credited by 57.5 spaces. Therefore, a total of total of 13.9 parking spaces are required for the retail use.

Proximity to Transit and Shopping

Section 10-3-2866 of the Beverly Hills City Code notes that the number of parking spaces required may be reduced due to proximity to transit and a concentration of shopping around the site:

- 10-3-2866I
    - "The number of parking spaces required by this section may be reduced by not more than fifteen percent (15%) where a finding is made in approval of the conditional use permit that; because of the location of the hotel; availability of public transportation; or proximity and concentration of shopping to the hotel site, the hotel use will not generate a need for the number of parking spaces designated by this section. The provisions of section 10-3-2730 of this chapter relative to the joint use of parking facilities where one use is primarily a daytime use and the other use is primarily a nighttime use shall not be applicable to the parking required by this article. (Ord. 84-O-1937, eff. 11-1-1984; amd. Ord. 87-0-2005, eff. 10-15-1987; Ord. 96-0-2256, eff. 4-5-1996; Ord. 98-O-2304, eff. 8-7-1998; Ord. 98-O-2306, eff. 9-11-1998)"

The Cheval Blanc Hotel will be located in an area with significant availability of public transportation. Existing and future transit lines are noted below:

- Metro Rapid 704 (15-minute weekday headways and stops along Santa Monica Boulevard 600-800' from hotel)
- Metro Lines 4, 14, 16, and 316
- Metro D Line (Heavy Rail Line with station less than half mile from hotel. Under construction and to be complete prior to hotel opening)

Furthermore, the hotel will be located in an area with a significant concentration of shopping. The Beverly Hills Business Triangle has a significant number of internally captured trips. A 15% proximity to transit credit is applied to the hotel, hotel restaurant/bar, restaurant/bar, and retail land uses.

Table 2 shows the number of parking spaces required for the project with the parking credits included.

Table 2 – City Code Parking Required (with parking credits)

Use	Unit	Ratio	Spaces Required (City Code)
Hotel	115 rooms	1 space / rentable room	115.0
Hotel Restaurant/Bar[1]	16,928 SF	1 space / 350 SF	48.4
Restaurant/Bar[2]	8,166 SF	1 space / 350 SF	23.3
Retail	24,976 SF	1 space / 350 SF	71.4
Member's Club	8,198 SF	1 space / 350 SF	23.4
Subtotal			**281.5**
Retail/Hotel Credit (50% of required hotel spaces)			-57.5
Proximity to Transit Credit (15%)[3]			-30.1
Subtotal of Parking Credits			**-97.6**
Total			193.9

[1] - Hotel restaurant/Bar Includes 14,668 SF of restaurant/bar on 2nd, 6th, and 7th floors and 2,260 SF of private outdoor dining on L7. Compared to the Ground Floor restaurant, the 2nd Floor restaurant may be used more for hotel guests.
[2] - Restaurant/Bar includes 5,666 SF of restaurant/bar on Ground Floor and 2,500 SF of private outdoor dining on L6.
[3] – Transit credit applied to hotel, hotel restaurant/bar, restaurant/bar, and retail land uses.

As shown in **Table 2**, the maximum parking required by the City code if all parts of the Cheval Blanc experienced peak demand concurrently would be 194 parking spaces.

Provisions for Hotel Employees

The Beverly Hills City Code specifies that a portion of required parking spaces must be reserved for hotel employees:

- 10-3-2866E
    - "One-third (1/3) of the parking spaces required by subsection A of this section shall be used exclusively for hotel employee parking, and such spaces shall be subject to the following provisions:
        - Such parking shall be furnished without charge to the employees;

Therefore, one third of the 115 parking spaces required for the hotel, or 39 parking spaces total, would be required to be reserved for hotel employees. An estimate of the number of hotel and hotel restaurant parking spaces that would be used by visitors and employees is included in **Table 3**. The ratios for visitors to employees were developed by referencing the Urban Land Institute's *Shared Parking*, 3rd Edition. *Shared Parking* notes the following relative demands:

- Hotel (Leisure) – 1 visitor parking space for every 0.15 employee parking spaces (weekday and weekend)

- Hotel Restaurant – 6.67 visitor parking spaces for every 1 employee parking space (weekday)
- Hotel Restaurant – 7.67 visitor parking spaces for every 1.33 employee parking spaces (weekend)

Shared Parking

The Cheval Blanc Hotel project contains a mixture of uses that would be expected to generate peak parking demands at different times of the day. The proposed project parking garage will contain 39 reserved parking spaces for hotel employees, but the remaining parking spaces would be shared among the hotel guests, restaurant guests and employees, retail guests and employees, and Club members.

A Shared Parking Analysis was conducted by using the time-of-day demand rates listed in Urban Land Institute's *Shared Parking*, 3rd Edition, on the Beverly Hills City Code parking requirements.

Shared Parking provides hourly demand percentages for visitors and employees for the project land uses. The weekday and weekend hourly demand percentages are included in **Appendix A**. The following land uses were used for the time-of-day analysis.

- Retail (over 2,000 SF) – Visitor and Employee
- Restaurant (Fine/Casual Dining) – Visitor and Employee
- Hotel (Leisure) – Visitor and Employee
- Hotel Restaurant – Visitor and Employee

Shared Parking does not provide hourly parking demand data for member's clubs. For this analysis, the time-of-day parking demand for the member's Club was estimated based on data provided by Cheval Blanc.

Hourly parking demand was calculated for the project for typical weekday and weekend days using the ULI time-of-day parking demand rates. The time-of-day analysis shows that the peak parking demand would occur on weekend days and weekdays at 8 PM. A secondary peak would occur at 12 PM on weekend days and weekdays. The time-of-day parking demand for weekdays and weekends is included in **Appendix B**. **Table 3** on the following page shows the peak parking demand at peak daytime (6 AM to 6 PM) and evening (6 PM to 12 AM) weekday and weekend periods.

Table 3 – City Code Parking Required (with parking credits and shared parking)

Use	Unit	Spaces Required (with credits applied)	Peak Weekday Demand		Peak Weekend Demand	
			Daytime (12 PM)	Evening (8 PM)	Daytime (12 PM)	Evening (8 PM)
Hotel	*115 rooms*	*97.8*				
Visitor[3]		85.0	55.3	76.5	55.3	76.5
Employee[3]		12.8	12.8	2.6	12.8	2.6
Hotel Restaurant/Bar[1]	16,928 SF	*41.1*				
Visitor[4]		34.8	34.8	24.4	35.0	24.5
Employee[4]		6.3	6.3	2.5	6.1	6.1
Restaurant/Bar[2]	8,166 SF	19.8				
Visitor		17.0	12.7	17.0	8.5	17.0
Employee		2.9	2.6	2.9	2.1	2.8
Retail	24,976 SF	11.8				
Visitor		9.5	9.5	6.2	9.0	6.1
Employee		2.3	2.3	2.1	2.4	1.8
Member's Club	8,198 SF	23.4	7.0	21.1	7.0	21.1
Unreserved Parking Spaces						
Unreserved Supply		146.0	146.0	185.0	146.0	185.0
Unreserved Demand		174.9	124.2	155.1	119.2	158.5
Reserved Parking Spaces						
Reserved Supply		39.0	39.0	-	39.0	-
Reserved Demand		19.0	19.0	-	18.8	-
Total Parking Spaces						
Total Supply		**185.0**	**185.0**	**185.0**	**185.0**	**185.0**
Total Demand		**193.9**	**143.2**	**155.1**	**138.1**	**158.5**

[1] - Hotel restaurant/Bar Includes 14,668 SF of restaurant/bar on 2nd, 6th, and 7th floors and 2,260 SF of private outdoor dining on L7. Compared to the Ground Floor restaurant, the 2nd Floor restaurant may be used more for hotel guests.
[2] - Restaurant/Bar includes 5,666 SF of restaurant/bar on Ground Floor and 2,500 SF of private outdoor dining on L6
[3] - Per ULI rates, the average hotel parking demand rate is 87% visitors and 13% employees
[4] - Per ULI rates, the average hotel restaurant parking demand rate is 85% visitors and 15% employees

Table 3 shows that from 6 AM to 6 PM on weekdays and weekends, the peak demand for reserved and unreserved spaces would be accommodated by the proposed supply of parking spaces (39 reserved spaces and 146 unreserved spaces). The peak parking demand during the weekday before 6 PM is 19.0 for the reserved hotel employee parking spaces and 124.2 for all other unreserved parking spaces. The peak parking demand during the weekend before 6 PM is 18.8 for the reserved hotel employee parking spaces and 119.2 for all other unreserved parking spaces.

The ULI Shared Parking model shows that parking demand for hotel employees typically decreases after 6 PM. The time-of-day model shows that employees would be expected to use a maximum of 8.6 of the 39 reserved parking spaces after 6 PM on weekdays and weekends. Therefore, it is recommended that a portion of the 39 reserved parking spaces be opened to other users after 6 PM.

This analysis shows that the proposed supply of 185 parking spaces will meet the projected peak demand for the project.

III. PARKING DEMAND ANALYSIS

The second method for calculating parking demand for the Cheval Blanc focuses entirely on the shared parking principles described in *Shared Parking*. *Shared Parking* provides base parking demand rates for a variety of land uses. The manual provides guidance for adjusting the drive ratio and capture rates for each land use, along with time-of-day distributions.

Base Parking Demand Rates

Base parking demand rates are provided by *Shared Parking*. The base parking demand rates are generated based on surveys of stand-alone sites where nearly 100% of visitors and employees drive to the site. Base parking demand rates for the following components of the Cheval Blanc are supplied by *Shared Parking*:

- Hotel
  - Weekday – 1 (visitor) and 0.15 (employee)
  - Weekend – 1 (visitor) and 0.15 (employee)
- Hotel Restaurant
  - Weekday – 6.67 (visitor) and 1.2 (employee)
  - Weekend – 7.67 (visitor) and 1.33 (employee)
- Restaurant
  - Weekday – 13.25 (visitor) and 2.25 (employee)
  - Weekend – 15.25 (visitor) and 2.50 (employee)
- Retail (over 2,000 ksf)
  - Weekday – 2.9 (visitor) and 0.7 (employee)
  - Weekend – 3.2 (visitor) and 0.8 (employee)

Drive Ratio Adjustment

Shared Parking notes that the drive ratio should be determined based on a survey of local conditions. The following drive rates are estimated for each portion of the Cheval Blanc:

- **Hotel-Leisure** – 33.4%
  - Based off a study of drive rates for luxury hotels in Beverly Hills between 2017 and 2019. Data included in **Appendix C.**
- **Hotel Restaurant** – 47% (weekday) and 40% (weekend)
  - ULI *Shared Parking* recommend drive rates of 47% on weekdays and 40% on weekends for hotel restaurants in downtown locations with paid and/or valet parking.
- **Restaurant** – 50%
  - Drive-rate of 29.7% observed between 2017 and 2019 at three luxury stand-alone restaurants with no self-parking option in Beverly Hills and similar communities. To be conservative, the drive-rate was increased from 29.7% to 50% to account for potential that some visitors may self-park at off-site parking facilities. However, research shows that a negligible number of visitors to luxury restaurants self-park off-site. Data included in **Appendix D**.
- **Retail** – 75%

- Drive-rate of 84.1% for retail uses observed in 2016 at the Beverly Hills Cartier store[4]. Data was collected on Saturday, May 16, Tuesday, May 17, and Saturday, May 21. The Cartier store is similar to the types of retail stores that will be included with the Project. The drive-rate for the Project is estimated to be marginally more than 10% lower than the drive-rate observed in 2016 due to the increase in rideshare popularity and the increase in high quality transit near the Project site that has been built and will continue to be built prior to the Project opening. A drive-rate of 75% is proposed for the Project.

- **Employees** – 50%
  - Drive-in rate for employees was estimated based on American Community Survey (ACS) data. The ACS data shows that 70% of service employees in Beverly Hills drive alone to work. Due to the project's location near two high-density transit corridors (Santa Monica Boulevard and Wilshire Boulevard), it is likely that the drive rate for service employees for jobs near the Cheval Blanc would be lower than 70%. The Cheval Blanc will provide transit passes for all employees. Provision of transit passes to employees has been shown to reduce vehicle miles traveled (VMT) by employees by up to 20% (Source: Los Angeles Department of Transportation Vehicle Miles Traveled Calculator). The reduction of VMT is assumed to match a similar reduction in parking space demand. Therefore, the assumed drive-in rate for employees is 50%.

Captive Ratio Adjustments

For mixed-use developments, a portion of the trips generated by one land use would be "captured" by other land uses that are also part of the development. For Cheval Blanc, internal capture of trips is expected to occur between the hotel and the restaurant and retail. No additional parking demand would be generated by internal trips between the hotel and restaurant and retail land uses. A 20% captive rate is assumed for restaurant and retail. The 20% captive ratio is justified by the ITE internal capture estimator tool. ITE Internal Capture worksheets are included in **Appendix E**.

Member's Club

Parking demand for the member's Club was estimated using two scenarios – A) using data from Cheval Blanc about how the Club is expected to be utilized; and B) using data from a similar membership club approved by the City of West Hollywood.

Scenario A

Parking demand for the membership club was estimated in consultation with Cheval Blanc about how the Club is expected to operate. The Member's Club consists of three areas on the 3rd Floor that will be dedicated for exclusive member's use (the Club Lounge, Club Meeting Room, and Club Screening Room). Member's will also have access to parts of the Cheval Blanc that are shared with hotel guests, including the Wellness Center and restaurants on the 6th and 7th floors. Per Cheval Blanc, the Member's Club will be limited to a maximum of 500 individual Club memberships. A parking demand rate of 0.06 parking spaces per member was developed based on forecast operations provided by Cheval Blanc. Parking demand for the Member's Club for uses that are analyzed separately (like the 6th and 7th floor

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[4] 370 North Rodeo Drive Project Trip Generation Analysis, RK Engineering Group, July 23, 2018

restaurants) are assumed to be in addition to the typical parking demand for those uses, in order to be conservative. Furthermore, a drive-rate of 100% and average vehicle occupancy of 1 person per vehicle are assumed as a conservative analysis.

Scenario B

To verify projected Club parking demands, parking demand for a similar proposed membership club in West Hollywood was reviewed. The Arts Club West Hollywood Project was approved by the City of West Hollywood in 2018. It includes restaurants, lounges, private dining, guestrooms, a fitness/spa, and an outdoor pool and deck. A transportation study for the West Hollywood Arts Club was prepared in September 2017. The study relied on parking demand data gathered at an existing Arts Club site in London. The parking demand rate for the Arts Club West Hollywood employees was increased based on local parking demand in the West Hollywood area. The study forecast the following parking demand rates:

- Member demand: 0.019 spaces per member (weekday)
- Member demand: 0.032 spaces per member (weekend)
- Employee Demand: 0.023 spaces per member (weekday and weekend)

The parking demand for Cheval Blanc Club is anticipated to be similar to the West Hollywood Arts Club because they contain similar uses. Although the Cheval Blanc Club proposes to use hotel employees as staff for the Club, using the Arts Club parking demand rate calculates demand for members, their guests and employees based on the Arts Club and is thus a conservative estimate of Club parking demand.

Time of Day Shared Parking

Shared Parking principles indicate that the various portions of the Cheval Blanc would experience peak parking demand at different times of day. In general, retail tends to experience peak parking demands earlier in the day, while restaurant and hotel tends to experience peak parking demand later in the day. Based on the shared time-of-day distribution of parking demand, the peak demand is projected to be between 184 (Scenario A) and 185 (Scenario B) vehicles, depending on which parking demand rate and time-of-day distribution is used to estimate the parking demand for the private membership Club. The parking demand for the Cheval Blanc for all times of day for Scenarios A and B is shown in **Appendix F**.

The Cheval Blanc proposes to include 185 parking spaces. Based on the forecast peak parking demand, the projected demand would be accommodated by the proposed supply.

IV. PARKING DEMAND FOR EVENTS

The Cheval Blanc proposes to hold events that would generate different parking demands compared to typical conditions. Three types of events are analyzed in this parking demand analysis.

- **Event Type A**
  - The Cheval Blanc will hold events in the 6th and/or 7th floor restaurants up to 6 times per year. These events would be open exclusively to Club members, hotel patrons and their respective guests, with total attendance capped at 150. During these events, the 6th and/or 7th floor restaurant would not be available for normal use and would therefore not generate its typical parking demand.
- **Event Type B**
  - The Cheval Blanc will hold events in the Penthouse up to 6 times per year with attendance capped at 75. During these events, all other parts of the Cheval Blanc would be available for typical use.
- **Event Type C**
  - The Cheval Blanc will hold weekly events for Club members and their guests in the 3rd floor Club Lounge and Screening Room, with attendance capped at 50.

Event Parking Demand

Cheval Blanc event parking demand was calculated for a scenario where Event Types A, B, and C are held concurrently. In this scenario, the 6th and 7th floor indoor and outdoor restaurant spaces would not be open to non-event attendees and would not generate additional parking demand. Similarly, the 3rd Floor members Club spaces would not be open to members not attending the special event.

For event parking demand, a drive-in rate of 100% and an average vehicle occupancy (AVO) of 2 people per car is assumed. Data from National Household Travel Survey and Federal Highway Administration (FHWA) *Managing Travel for Planned Special Events* show that AVO for events typically range from 2.1 to 3.1.

To be conservative, event parking demand is analyzed for an event occurring when parking demand for other parts of the Cheval Blanc are at a peak. Event parking demand is analyzed with a consistent parking demand throughout the day. The parking demand for event attendees would be 138 vehicles (75 for Event Type A, 38 for Event Type B, and 25 for Event Type C).

Peak parking demand is projected to occur at 1 PM on weekdays and at 1 PM on weekend days. The peak parking demand would be 252 parking spaces. Parking demand for the Cheval Blanc during events is shown in **Appendix G**.

To accommodate the additional parking demand which may occur during events, the Cheval Blanc would implement a valet service plan. The Valet Service Plan Memorandum shows that the Cheval Blanc could accommodate up to 252 parking spaces. Therefore, the projected parking demand during events could be accommodated by on-site parking.

Appendix A – Shared Parking Time-Of-Day Parking Demand Percentages

Weekday - Time-of-Day Parking Demand

Land Use	Type	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM
Hotel - Leisure	Visitors	95%	95%	90%	80%	70%	70%	65%	65%	70%	70%	75%	80%	85%	85%	90%	95%	95%	100%	100%
	Employees	10%	30%	100%	100%	100%	100%	100%	100%	100%	100%	70%	70%	40%	20%	20%	20%	20%	10%	5%
Hotel Restaurant[1]	Visitor	0%	10%	30%	10%	10%	5%	100%	100%	33%	10%	10%	30%	55%	60%	70%	67%	60%	40%	30%
	Employee	10%	10%	60%	100%	100%	100%	100%	100%	100%	100%	100%	100%	60%	40%	40%	20%	0%	0%	0%
Fine/Casual Dining[2]	Visitors	0%	0%	0%	0%	15%	40%	75%	75%	65%	40%	50%	75%	95%	100%	100%	100%	95%	75%	25%
	Employees	0%	20%	50%	75%	90%	90%	90%	90%	90%	75%	75%	100%	100%	100%	100%	100%	100%	85%	35%
Retail	Visitors	1%	5%	15%	35%	60%	75%	100%	100%	95%	85%	85%	85%	90%	80%	65%	45%	15%	5%	0%
	Employees	10%	15%	25%	45%	75%	95%	100%	100%	100%	100%	100%	100%	100%	100%	90%	60%	40%	20%	0%
Members Club[3]	Visitors	10%	27%	40%	100%	67%	40%	30%	20%	30%	10%	10%	0%	60%	70%	90%	60%	40%	10%	10%

[1] - Hotel restaurant/Bar Includes 14,668 SF of restaurant/bar on 2nd, 6th, and 7th floors and 2,260 SF of private outdoor dining on L7

[2] - Restaurant/Bar includes 5,666 SF of restaurant/bar on Ground Floor and 2,500 SF of private outdoor dining on L6

[3] - Members Club time-of-day percentages based on anticipated operations provided by Cheval Blanc

Weekend - Time-of-Day Parking Demand

Land Use	Type	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM
Hotel - Leisure	Visitors	95%	95%	90%	80%	70%	70%	65%	65%	70%	70%	75%	80%	85%	85%	90%	95%	95%	100%	100%
	Employees	10%	30%	100%	100%	100%	100%	100%	100%	100%	100%	70%	70%	40%	20%	20%	20%	20%	10%	5%
Hotel Restaurant[1]	Visitor	0%	10%	30%	10%	10%	5%	100%	100%	33%	10%	10%	30%	55%	60%	70%	67%	60%	40%	30%
	Employee	10%	10%	60%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	60%	10%	10%
Fine/Casual Dining[2]	Visitors	0%	0%	0%	0%	0%	15%	50%	55%	45%	45%	45%	60%	90%	95%	100%	90%	90%	90%	50%
	Employees	0%	20%	30%	60%	75%	75%	75%	75%	75%	75%	75%	100%	100%	100%	100%	100%	100%	85%	50%
Retail	Visitors	1%	5%	30%	50%	70%	90%	95%	100%	100%	95%	90%	80%	75%	70%	65%	50%	30%	10%	0%
	Employees	10%	15%	40%	75%	85%	95%	100%	100%	100%	100%	100%	95%	85%	80%	75%	65%	45%	15%	0%
Members Club[3]	Visitors	10%	27%	40%	100%	67%	40%	30%	20%	30%	10%	10%	0%	60%	70%	90%	60%	40%	10%	10%

[1] - Hotel restaurant/Bar Includes 14,668 SF of restaurant/bar on 2nd, 6th, and 7th floors and 2,260 SF of private outdoor dining on L7

[2] - Restaurant/Bar includes 5,666 SF of restaurant/bar on Ground Floor and 2,500 SF of private outdoor dining on L6

[3] - Members Club time-of-day percentages based on anticipated operations by Cheval Blanc

Appendix B – City Code Shared Parking Time-Of-Day Parking Demand

Shared Parking Demand (Weekday)

Use	Unit	Ratio	Spaces Required (no credits)	Credit A (Hotel/Retail credit)	Spaces Required (with Credit A)	Credit B (Transit Credit)	Spaces Required (with Credits A & B)	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM
Hotel			*115.0*	*0.0*	*115.0*	*-17.3*	*97.8*																			
Visitor[3]	*115 rooms*	*1 space / rentable room*	100.0	0.0	100.0	-15.0	85.0	80.8	80.8	76.5	68.0	59.5	59.5	55.3	55.3	59.5	59.5	63.8	68.0	72.3	72.3	76.5	80.8	80.8	85.0	85.0
Employee[3]			15.0	0.0	15.0	-2.3	12.8	1.3	3.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	8.9	8.9	5.1	2.6	2.6	2.6	2.6	1.3	0.6
Hotel Restaurant/Bar[1]			*48.4*	*0.0*	*48.4*	*-7.3*	*41.1*																			
Visitor[4]	16,928 SF	*1 space / 350 SF floor area*	41.0	0.0	41.0	-6.1	34.8	0.0	3.5	10.5	3.5	3.5	1.7	34.8	34.8	11.5	3.5	3.5	10.5	19.2	20.9	24.4	23.3	20.9	13.9	10.5
Employee[4]			7.4	0.0	7.4	-1.1	6.3	0.6	0.6	3.8	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	3.8	2.5	2.5	1.3	0.0	0.0	0.0
Restaurant/Bar[2]			23.3	0.0	23.3	-3.5	19.8																			
Visitor	8,166 SF	1 space / 350 SF floor area	19.9	0.0	19.9	-3.0	17.0	0.0	0.0	0.0	0.0	2.5	6.8	12.7	12.7	11.0	6.8	8.5	12.7	16.1	17.0	17.0	17.0	16.1	12.7	4.2
Employee			3.4	0.0	3.4	-0.5	2.9	0.0	0.6	1.4	2.2	2.6	2.6	2.6	2.6	2.6	2.2	2.2	2.9	2.9	2.9	2.9	2.9	2.9	2.4	1.0
Retail			71.4	-57.5	13.9	-2.1	11.8																			
Visitor	24,976 SF	1 space / 350 SF floor area	57.5	-46.3	11.2	-1.7	9.5	0.1	0.5	1.4	3.3	5.7	7.1	9.5	9.5	9.0	8.1	8.1	8.1	8.5	7.6	6.2	4.3	1.4	0.5	0.0
Employee			13.9	-11.2	2.7	-0.4	2.3	0.2	0.3	0.6	1.0	1.7	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.1	1.4	0.9	0.5	0.0
Member's Club	8,198 SF	1 space / 350 SF floor area	23.4	0.0	23.4	0.0	23.4	2.3	6.2	9.4	23.4	15.6	9.4	7.0	4.7	7.0	2.3	2.3	0.0	14.1	16.4	21.1	14.1	9.4	2.3	2.3
Unreserved Parking Spaces																										
Unreserved Supply								146.0	146.0	146.0	146.0	146.0	146.0	146.0	146.0	146.0	146.0	146.0	146.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0
Unreserved Demand								83.4	91.9	99.8	101.4	91.1	89.3	124.2	121.9	102.9	84.6	90.6	104.4	144.1	144.3	155.1	147.4	134.9	118.6	103.7
Reserved Parking Spaces																										
Reserved Supply								39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	-	-	-	-	-	-	-
Reserved Demand								1.9	4.5	16.5	19.0	19.0	19.0	19.0	19.0	19.0	19.0	15.2	15.2	-	-	-	-	-	-	-
Total Parking Spaces																										
Total Supply								185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0
Total Demand								85.3	96.3	116.3	120.4	110.2	108.3	143.2	140.9	122.0	103.6	105.8	119.6	144.1	144.3	155.1	147.4	134.9	118.6	103.7

[1] - Hotel restaurant/Bar Includes 14,668 SF of restaurant/bar on 2nd, 6th, and 7th floors and 2,260 SF of private outdoor dining on L7

[2] - Restaurant/Bar includes 5,666 SF of restaurant/bar on Ground Floor and 2,500 SF of private outdoor dining on L6

[3] - Per ULI rates, the average hotel parking demand rate is 87% visitors and 13% employees

[4] - Per ULI rates, the average hotel restaurant parking demand rate is 85% visitors and 15% employees

Shared Parking Demand (Weekend)

Use	Unit	Ratio	Spaces Required (no credits)	Credit A (Hotel/Retail credit)	Spaces Required (with Credit A)	Credit B (Transit Credit)	Spaces Required (with Credits A & B)	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM
Hotel			*115.0*	*0.0*	*115.0*	*-17.3*	*97.8*																			
Visitor[3]	*115 rooms*	*1 space / rentable room*	100.0	0.0	100.0	-15.0	85.0	80.8	80.8	76.5	68.0	59.5	59.5	55.3	55.3	59.5	59.5	63.8	68.0	72.3	72.3	76.5	80.8	80.8	85.0	85
Employee[3]			15.0	0.0	15.0	-2.3	12.8	1.3	3.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	8.9	8.9	5.1	2.6	2.6	2.6	2.6	1.3	1
Hotel Restaurant/Bar[1]			*48.4*	*0.0*	*48.4*	*-7.3*	*41.1*																			
Visitor[4]	16,928 SF	*1 space / 350 SF floor area*	41.0	0.0	41.0	-6.1	34.8	0.0	3.5	10.5	3.5	3.5	1.8	35.0	35.0	11.6	3.5	3.5	10.5	19.3	21.0	24.5	23.5	21.0	14.0	11
Employee[4]			7.4	0.0	7.4	-1.1	6.3	0.6	0.6	3.6	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	3.6	0.6	1
Restaurant/Bar[2]			23.3	0.0	23.3	-3.5	19.8																			
Visitor	8,166 SF	1 space / 350 SF floor area	20.0	0.0	20.0	-3.0	17.0	0.0	0.0	0.0	0.0	0.0	2.6	8.5	9.4	7.7	7.7	7.7	10.2	15.3	16.2	17.0	15.3	15.3	15.3	9
Employee			3.3	0.0	3.3	-0.5	2.8	0.0	0.6	0.8	1.7	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.8	2.8	2.8	2.8	2.8	2.8	2.4	1
Retail			71.4	-57.5	13.9	-2.1	11.8																			
Visitor	24,976 SF	1 space / 350 SF floor area	57.1	-46.0	11.1	-1.7	9.4	0.1	0.5	2.8	4.7	6.6	8.5	9.0	9.4	9.4	9.0	8.5	7.5	7.1	6.6	6.1	4.7	2.8	0.9	0
Employee			14.3	-11.5	2.8	-0.4	2.4	0.2	0.4	0.9	1.8	2.0	2.2	2.4	2.4	2.4	2.4	2.4	2.2	2.0	1.9	1.8	1.5	1.1	0.4	0
Member's Club	8,198 SF	1 space / 350 SF floor area	23.4	0.0	23.4	0.0	23.4	2.3	6.2	9.4	23.4	15.6	9.4	7.0	4.7	7.0	2.3	2.3	0.0	14.1	16.4	21.1	14.1	9.4	2.3	2.3
Unreserved Parking Spaces																										
Unreserved Supply								146.0	146.0	146.0	146.0	146.0	146.0	146.0	146.0	146.0	146.0	146.0	146.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0
Unreserved Demand								83.4	91.9	101.0	103.1	89.3	86.0	119.2	118.2	99.6	86.4	90.2	101.3	143.9	145.8	158.5	151.3	139.4	122.2	109.0
Reserved Parking Spaces																										
Reserved Supply								39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	-	-	-	-	-	-	-
Reserved Demand								1.9	4.4	16.4	18.8	18.8	18.8	18.8	18.8	18.8	18.8	15.0	15.0	-	-	-	-	-	-	-
Total Parking Spaces																										
Total Supply								185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0	185.0
Total Demand								85.3	96.3	117.4	121.9	108.1	104.8	138.1	137.0	118.5	105.2	105.2	116.3	143.9	145.8	158.5	151.3	139.4	122.2	109.0

[1] - Hotel restaurant/Bar Includes 14,668 SF of restaurant/bar on 2nd, 6th, and 7th floors and 2,260 SF of private outdoor dining on L7

[2] - Restaurant/Bar includes 5,666 SF of restaurant/bar on Ground Floor and 2,500 SF of private outdoor dining on L6

[3] - Per ULI rates, the average hotel parking demand rate is 87% visitors and 13% employees

[4] - Per ULI rates, the average hotel restaurant parking demand rate is 85% visitors and 15% employees

Kimley»Horn

Appendix C – Hotel Drive-Rate Data

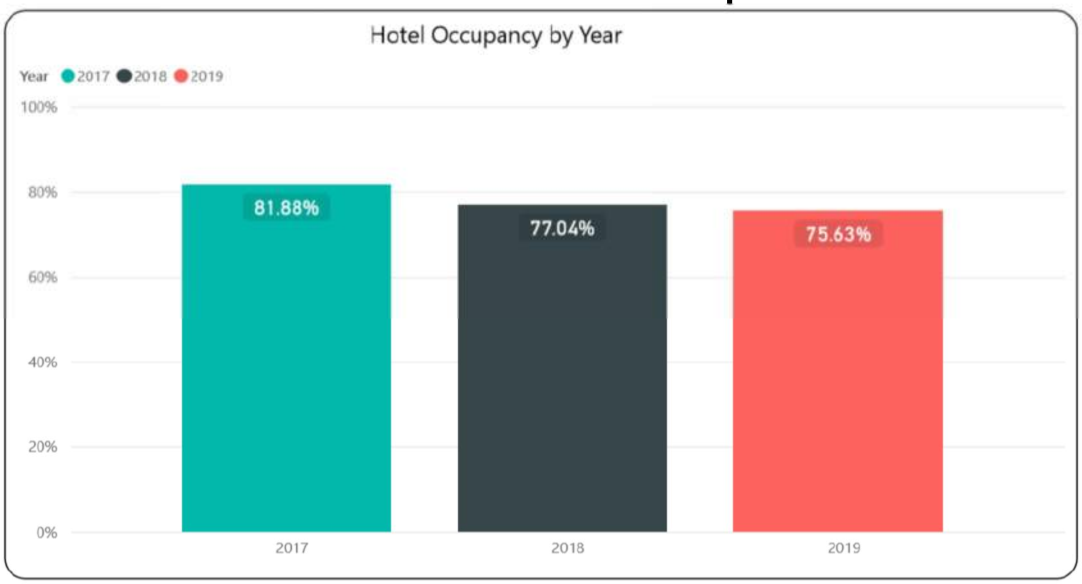
Cheval Blanc
Beverly Hills Luxury Hotel Parking Analysis
(March 10, 2020)

LAZ Parking, founded in 1981, operates hundreds of thousands of parking spaces from offices across the county and maintains data to manage its valet operations. LAZ Parking has developed tools to capture and analyze data on parked cars, hotel occupancies, and drive-in rates as follows:

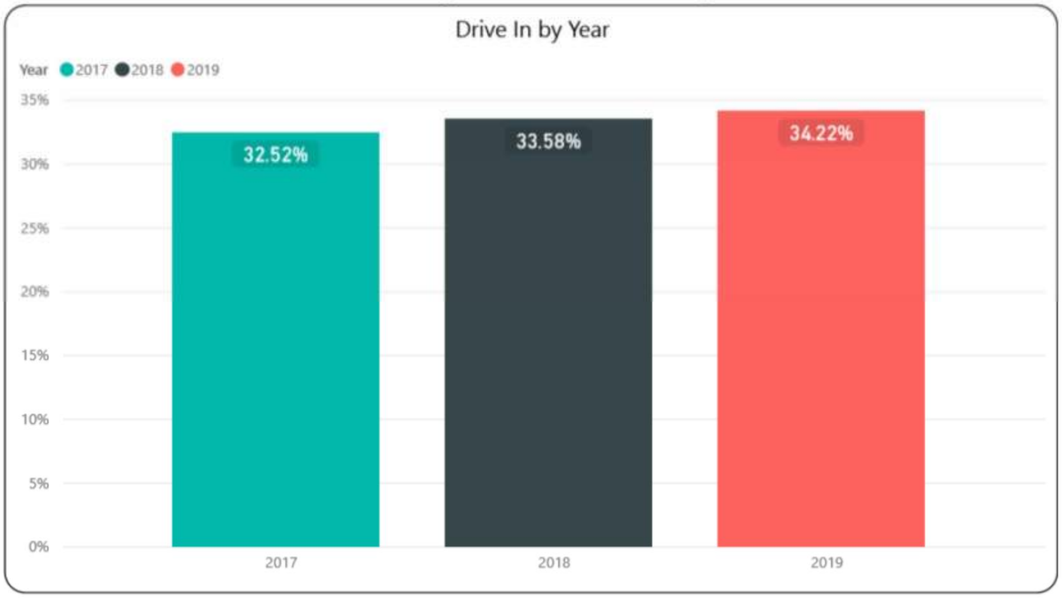
Empirical Data for Beverly Hills and Vicinity

The 3-year trend of hotel occupancies at Beverly Hills Luxury hotels from 2017 -2019 is 82%, 77%, and 76% respectively.

3 Year Trend of Hotel Occupancies



3 Year Trend of Luxury Hotel Overnight Drive-In Rates



The 3-year trend of overnight drive in rates is 32.5%, 33.6% and 34.2%

Hotel overnight drive in rates are derived by calculating the number of occupied rooms based on hotel occupancy and comparing that with the number of overnight cars parked based on market data from LAZ Parking.

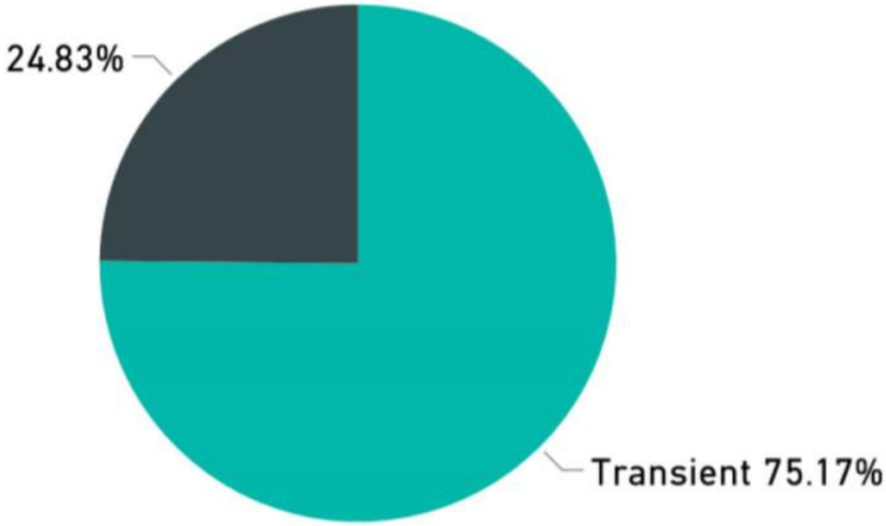
For example, a 100-room hotel at 100% occupancy results in 100 rooms nights. Based on the market data over the past 3 years the average drive in rate on overnight cars is 33.4%. 100 room nights at 33.4% drive in rate would result in 33 cars on average per night. Required guest parking can then be calculated using the following formula:

33.4% x number of guest rooms = required Hotel Guest Parking

Cheval Blanc at 115 rooms and 100% occupancy would exhibit a parking demand of approximately 38.4 guest parking spaces.

Total Overnight Cars vs. Transient Cars
Beverly Hills Luxury Hotels ‘18 and ‘19

LAZ Parking data indicates that transient visitor cars make up 75% of cars parked. Transient visitor cars are considered any other cars parked besides an overnight hotel guest (restaurant, banquet, event, meeting space, spa, etc.).



*Includes Banquet & Public Use Space Cars

Using the required number of guest parking spaces, the total number of required hotel visitor parking spaces can be determined. Transient Visitor Parking (including public assembly visitors) can be calculated using the following formula:

Hotel Guest Parking / 25% = Total Visitor Parking required

Total Visitor Parking Required x 75% = Transient Visitor Parking

For the 115-room Cheval Blanc project, the total breakdown of Transient Visitor Cars parked would be as follows:

38.4 Hotel Guest Cars / 25% = 153 Total Visitor Cars

Total Visitor Cars x 75% = 115 Transient Visitor Cars (including public assembly visitors)

Since the Cheval Blanc does not contain public assembly spaces, this number should be further reduced.

spaces in its motor court as proposed for Cheval Blanc.

Appendix D – Restaurant Drive-Rate Data

Drive-in Rates for Luxury Restaurants in Beverly Hills and Similar Communities[1]										
Restaurant	**Luxury**	**Stand-alone**	**Valet/ Self-Parking**	**Lunch/ Dinner**	**Capacity (Seats)**		**2017**	**2018**	**2019**	**Average**
A	X	X	Valet Only			Cover Counts	94,977	109,983	104,094	
						Cars Parked	33,046	29,474	26,469	
						Drive in Rate	35%	27%	25%	
B	X	X	Valet Only	Dinner Only	250	Cover Counts[2]	91,250			
						Cars Parked	24,720	23,728	22,600	
						Drive in Rate	27%	26%	25%	
C	X	X	Valet Only	Dinner Only	400	Cover Counts[3]	150,800			
						Cars Parked	47,580	47,377	46,867	
						Drive in Rate	32%	31%	31%	
Average Drive-in Rate							**31.3%**	**28.6%**	**27.7%**	**29.2%**

[1] Valet car parking and cover count data provided by LAZ Parking for three luxury stand-alone restaurants in Beverly Hills and similar communities. Data is proprietary and restaurants cannot be named

[2] Annual cover count estimated based on an average of 250 covers per night (provided by LAZ Parking)

[3] Annual cover count estimated based on an average of 700-800 covers on Friday nights, 1,000 covers on Saturday nights, 0 covers on Sunday nights, and 300-450 covers on Monday-Thursday nights. Cover counts at the lower end of each range were assumed in order to be conservative (provided by LAZ Parking)

Appendix E – ITE Internal Capture Worksheets

NCHRP 684 Internal Trip Capture Estimation Tool				
Project Name:	Beverly Hills Cheval Blanc		**Organization:**	Kimley-Horn and Associates, Inc.
Project Location:	Beverly Hills		**Performed By:**	
Scenario Description:			**Date:**	
Analysis Year:			**Checked By:**	
Analysis Period:	**AM Street Peak Hour**		**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)				Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units		Total	Entering	Exiting
Office		-	1,000 Sq Ft		0	0	0
Retail		25	1,000 Sq Ft		23	14	9
Restaurant		25	1,000 Sq Ft		18	14	4
Cinema/Entertainment		-	Screen(s)		0	0	0
Residential		-	Dwelling Unit(s)		0	0	0
Hotel		115	Room(s)		54	32	22
All Other Land Uses[2]		-	0		0	0	0
					95	60	35

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips				Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized		Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.00	0%	0%		1.00	0%	0%
Retail	1.00	0%	0%		1.00	0%	0%
Restaurant	1.00	0%	0%		1.00	0%	0%
Cinema/Entertainment	1.00	0%	0%		1.00	0%	0%
Residential	1.00	0%	0%		1.00	0%	0%
Hotel	1.00	0%	0%		1.00	0%	0%
All Other Land Uses[2]	1.00	0%	0%		1.00	0%	0%

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		1	0	0	0
Restaurant	0	1		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	1	1	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	95	60	35
Internal Capture Percentage	8%	7%	11%
External Vehicle-Trips[5]	87	56	31
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	14%	11%
Restaurant	14%	25%
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	0%	9%

[1] Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2] Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3] Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4] Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5] Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6] Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	Beverly Hills Cheval Blanc
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips				Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*		Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0		1.00	0	0
Retail	1.00	14	14		1.00	9	9
Restaurant	1.00	14	14		1.00	4	4
Cinema/Entertainment	1.00	0	0		1.00	0	0
Residential	1.00	0	0		1.00	0	0
Hotel	1.00	32	32		1.00	22	22

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	3		1	0	1	0
Restaurant	1	1		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	17	3	2	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		4	3	0	0	0
Retail	0		7	0	0	0
Restaurant	0	1		0	0	1
Cinema/Entertainment	0	0	0		0	0
Residential	0	2	3	0		0
Hotel	0	1	1	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates				External Trips by Mode*		
	Internal	External	Total		Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0		0	0	0
Retail	2	12	14		12	0	0
Restaurant	2	12	14		12	0	0
Cinema/Entertainment	0	0	0		0	0	0
Residential	0	0	0		0	0	0
Hotel	0	32	32		32	0	0
All Other Land Uses[3]	0	0	0		0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates				External Trips by Mode*		
	Internal	External	Total		Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0		0	0	0
Retail	1	8	9		8	0	0
Restaurant	1	3	4		3	0	0
Cinema/Entertainment	0	0	0		0	0	0
Residential	0	0	0		0	0	0
Hotel	2	20	22		20	0	0
All Other Land Uses[3]	0	0	0		0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A
[2]Person-Trips
[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator
*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool				
Project Name:			**Organization:**	Kimley-Horn and Associates, Inc.
Project Location:			**Performed By:**	
Scenario Description:			**Date:**	
Analysis Year:			**Checked By:**	
Analysis Period:	**PM Street Peak Hour**		**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)				Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units		Total	Entering	Exiting
Office		-	1,000 Sq Ft		0	0	0
Retail		25	1,000 Sq Ft		95	46	49
Restaurant		25	1,000 Sq Ft		196	131	65
Cinema/Entertainment		-	Screen(s)		0	0	0
Residential		-	Dwelling Unit(s)		0	0	0
Hotel		115	Room(s)		69	35	34
All Other Land Uses[2]		-	0		0	0	0
					360	212	148

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips				Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized		Veh. Occ.[4]	% Transit	% Non-Motorized
Office	1.00	0%	0%		1.00	0%	0%
Retail	1.00	0%	0%		1.00	0%	0%
Restaurant	1.00	0%	0%		1.00	0%	0%
Cinema/Entertainment	1.00	0%	0%		1.00	0%	0%
Residential	1.00	0%	0%		1.00	0%	0%
Hotel	1.00	0%	0%		1.00	0%	0%
All Other Land Uses[2]	1.00	0%	0%		1.00	0%	0%

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		14	0	0	2
Restaurant	0	23		0	0	5
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	1	7	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	360	212	148
Internal Capture Percentage	29%	25%	35%
External Vehicle-Trips[5]	256	160	96
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	52%	33%
Restaurant	16%	43%
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	20%	24%

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.
[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.
[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).
[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be
[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.
[6]Person-Trips
*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	0
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips				Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*		Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0		1.00	0	0
Retail	1.00	46	46		1.00	49	49
Restaurant	1.00	131	131		1.00	65	65
Cinema/Entertainment	1.00	0	0		1.00	0	0
Residential	1.00	0	0		1.00	0	0
Hotel	1.00	35	35		1.00	34	34

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	1		14	2	13	2
Restaurant	2	27		5	12	5
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	5	23	0	1	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		4	3	0	0	0
Retail	0		38	0	0	6
Restaurant	0	23		0	0	25
Cinema/Entertainment	0	2	4		0	0
Residential	0	5	18	0		4
Hotel	0	1	7	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates				External Trips by Mode*		
	Internal	External	Total		Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0		0	0	0
Retail	24	22	46		22	0	0
Restaurant	21	110	131		110	0	0
Cinema/Entertainment	0	0	0		0	0	0
Residential	0	0	0		0	0	0
Hotel	7	28	35		28	0	0
All Other Land Uses[3]	0	0	0		0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

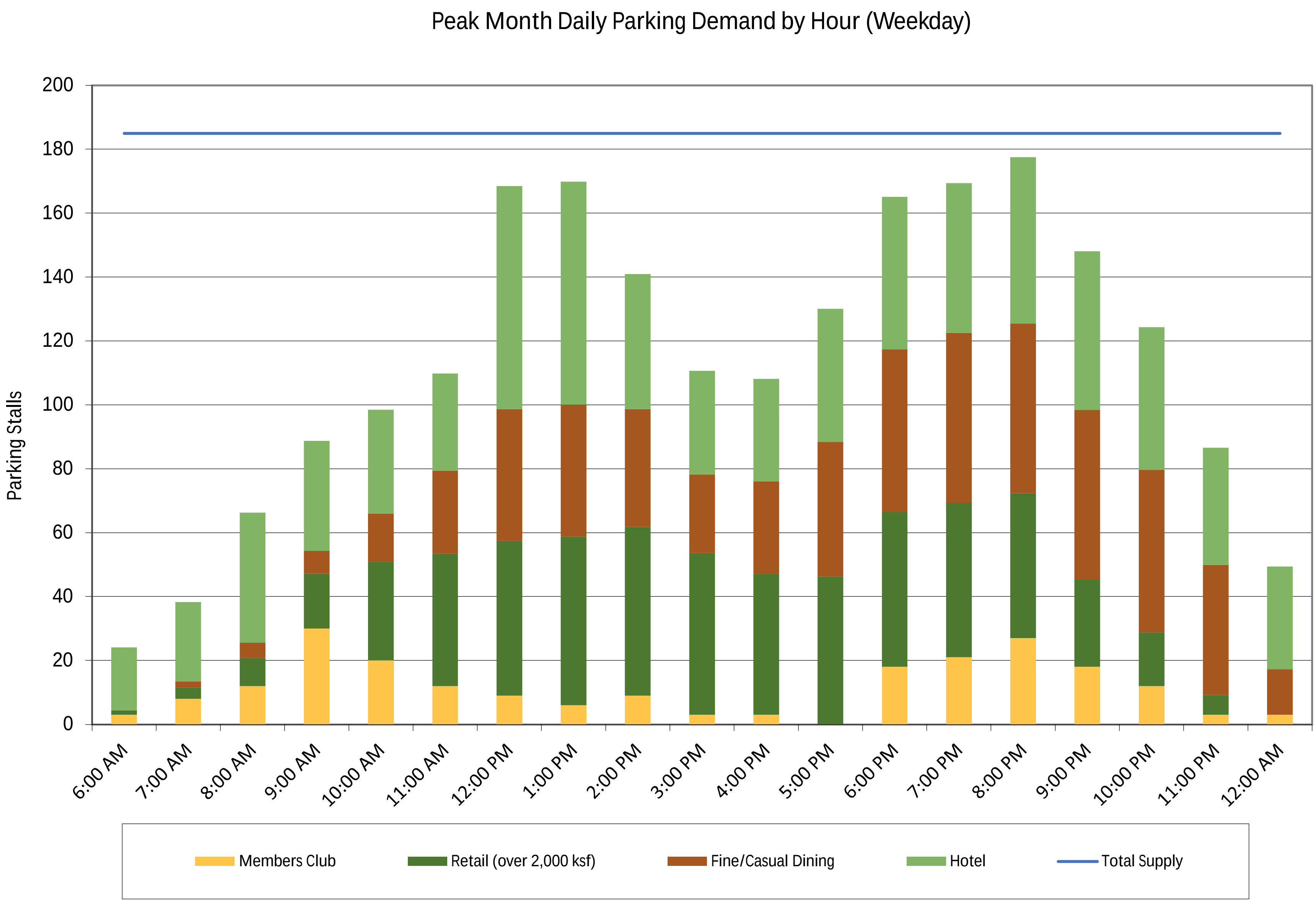
Origin Land Use	Person-Trip Estimates				External Trips by Mode*		
	Internal	External	Total		Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0		0	0	0
Retail	16	33	49		33	0	0
Restaurant	28	37	65		37	0	0
Cinema/Entertainment	0	0	0		0	0	0
Residential	0	0	0		0	0	0
Hotel	8	26	34		26	0	0
All Other Land Uses[3]	0	0	0		0	0	0

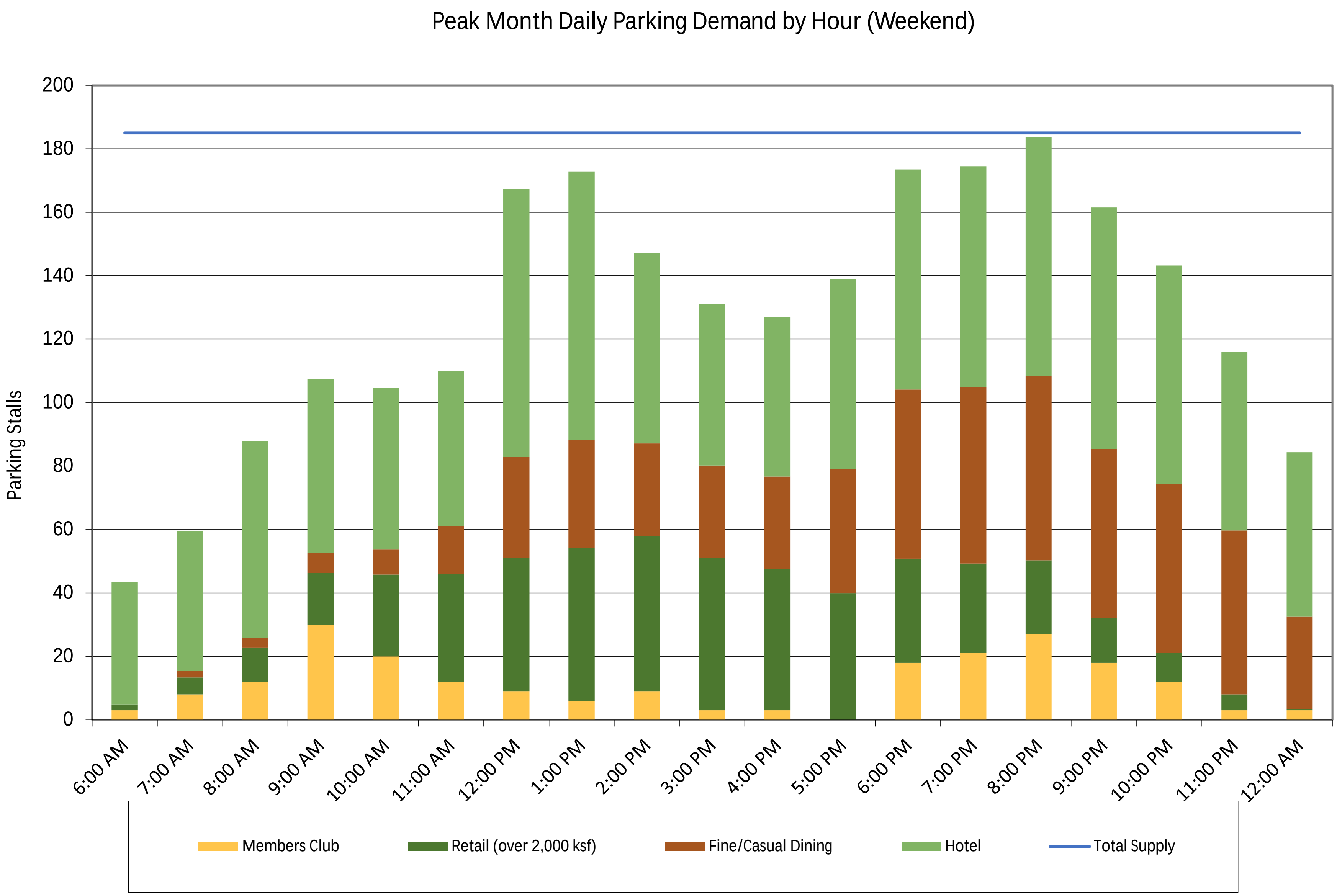
[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P
[2]Person-Trips
[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator
*Indicates computation that has been rounded to the nearest whole number.

Appendix F – ULI Shared Parking Time-Of-Day Parking Demand

Project: Cheval Blanc Hotel, Beverly Hills
Description: Scenario A

Shared Parking Demand Summary																		
Peak Month: DECEMBER -- Peak Period: 8 PM, WEEKEND																		
Land Use	Project Data		Weekday					Weekend					Weekday			Weekend		
	Quantity	Unit	Base Ratio	Driving Adj	Non-Captive Ratio	Project Ratio	Unit For Ratio	Base Ratio	Driving Adj	Non-Captive Ratio	Project Ratio	Unit For Ratio	Peak Hr Adj 8 PM	Peak Mo Adj December	Estimated Parking Demand	Peak Hr Adj 8 PM	Peak Mo Adj te Decemb	Estimated Parking Demand
Retail																		
Retail (over 2,000 ksf)	24,976	sf GLA	2.90	75%	80%	1.74	ksf GLA	3.20	75%	80%	1.92	ksf GLA	85%	100%	37	55%	85%	20
Employee			0.70	50%	100%	0.35		0.80	50%	100%	0.40		90%	100%	8	30%	95%	3
Food and Beverage																		
Fine/Casual Dining	8,166	sf GLA	13.25	50%	80%	5.30	ksf GLA	15.25	50%	80%	6.10	ksf GLA	100%	100%	44	100%	95%	48
Employee			2.25	50%	100%	1.13		2.50	50%	100%	1.25		100%	100%	10	100%	100%	11
Hotel and Residential																		
Hotel-Business		keys	1.00	59%	100%	0.59	key	1.00	69%	100%	0.69	key	80%	60%	-	80%	55%	-
Hotel-Leisure	115	keys	1.00	33%	100%	0.33	key	1.00	33%	100%	0.33	key	90%	50%	17	90%	100%	35
Hotel Employees	115	keys	0.15	50%	100%	0.08	key	0.15	50%	100%	0.08	key	20%	50%	1	20%	100%	2
Restaurant/Lounge	16,928	sf GLA	6.67	47%	80%	2.51	ksf GLA	7.67	40%	80%	2.45	ksf GLA	70%	100%	30	70%	95%	28
Restaurant/Meeting Employees	16,928	sf GLA	1.20	50%	100%	0.60	ksf GLA	1.33	50%	100%	0.67	ksf GLA	40%	100%	4	100%	100%	12
Additional Land Uses																		
Members Club	500	Members	0.06	100%	100%	0.06	Members	0.06	100%	100%	0.06	Members	90%	100%	27	90%	100%	27
Employee			0.00	100%	100%	0.00		0.00	100%	100%	0.00		100%	100%	-	100%	100%	-
													Customer/Visitor		155	Customer		157
													Employee/Resident		23	Employee/Resident		27
													Total		178	Total		184

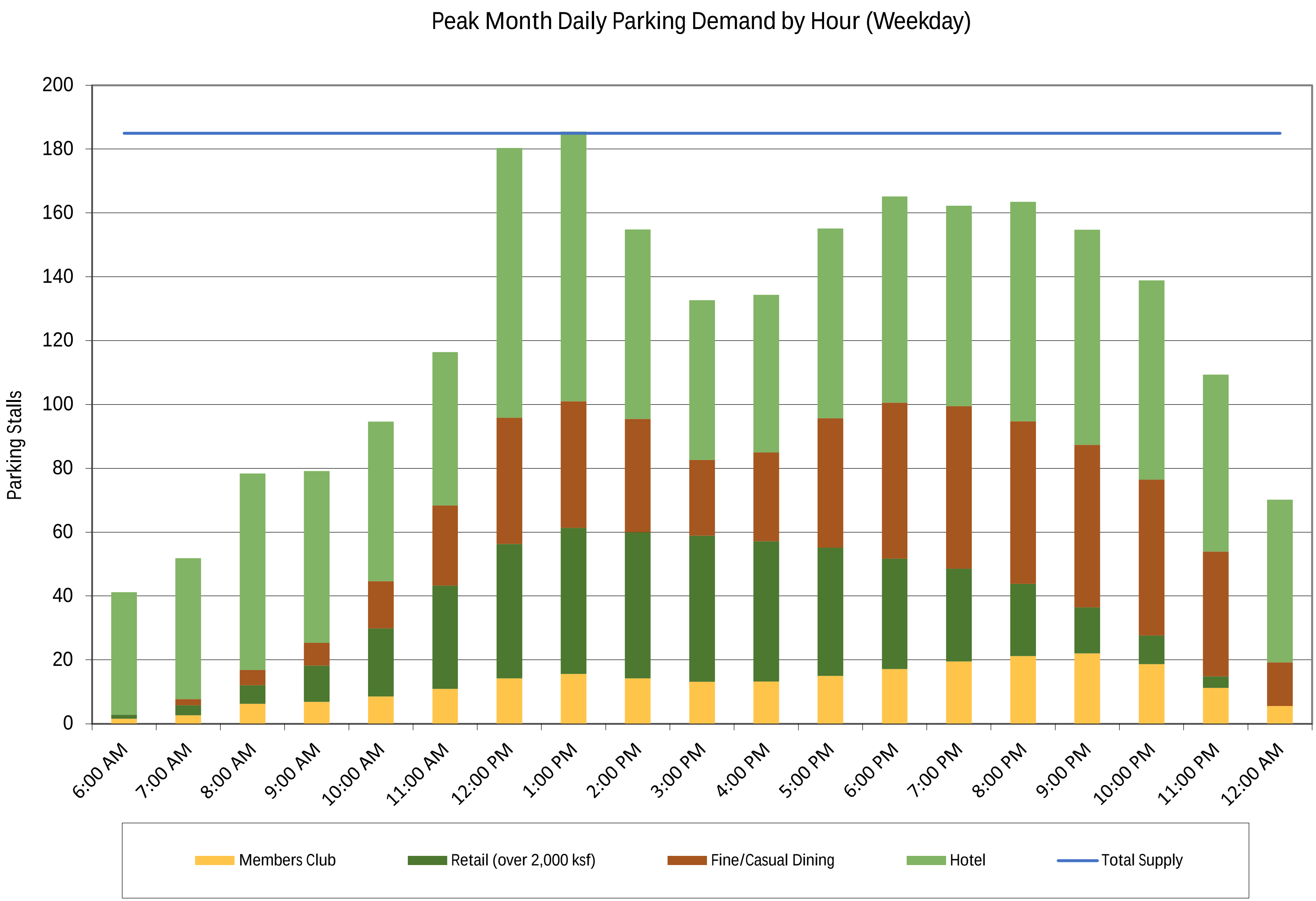

Peak Month Daily Parking Demand by Hour (Weekday)
200
180
160
140
120
100
80
60
40
20
0
Parking Stalls
6:00 AM
7:00 AM
8:00 AM
9:00 AM
10:00 AM
11:00 AM
12:00 PM
1:00 PM
2:00 PM
3:00 PM
4:00 PM
5:00 PM
6:00 PM
7:00 PM
8:00 PM
9:00 PM
10:00 PM
11:00 PM
12:00 AM
Members Club
Retail (over 2,000 ksf)
Fine/Casual Dining
Hotel
Total Supply



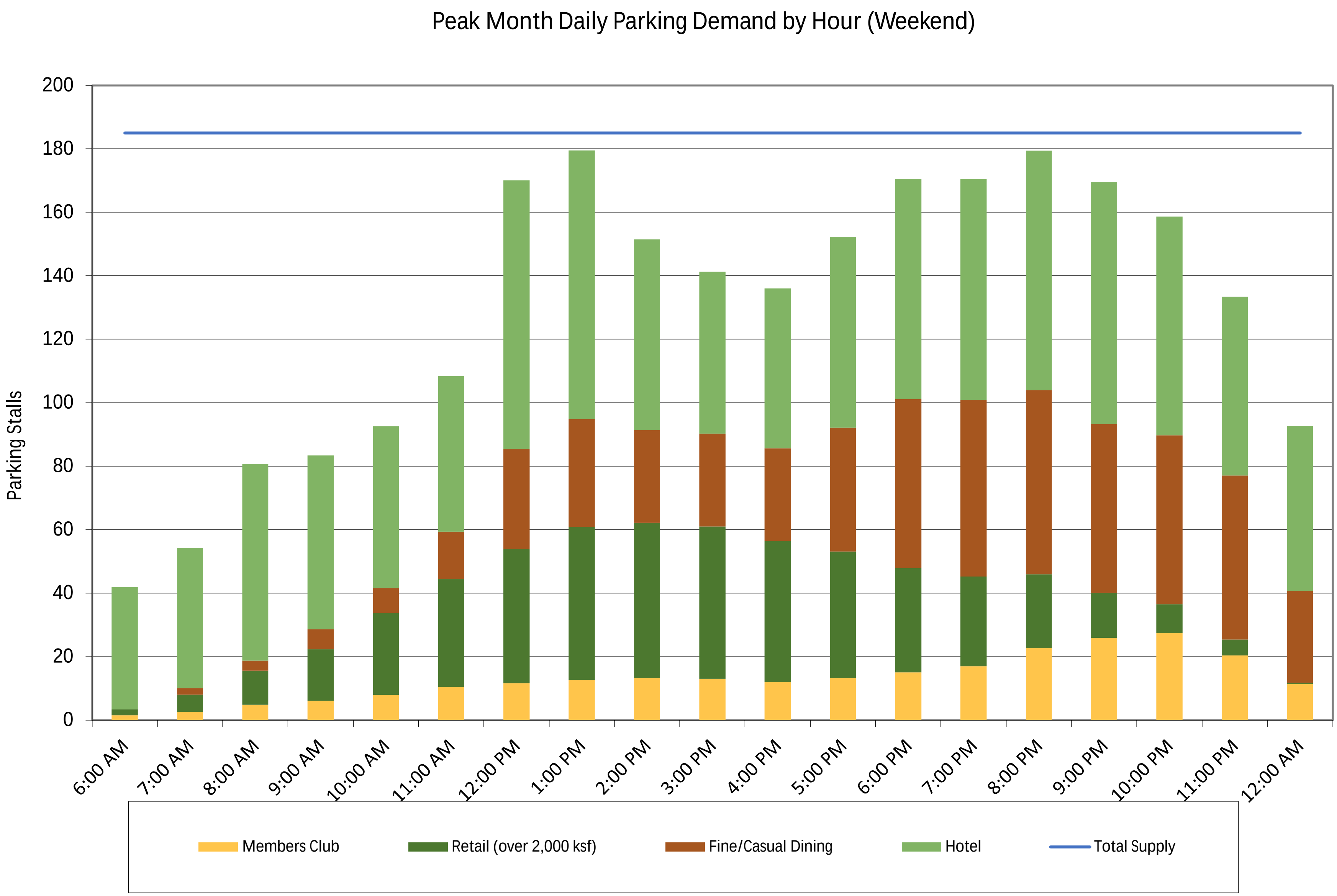
Peak Month Daily Parking Demand by Hour (Weekend)
200
180
160
140
120
100
80
60
40
20
0
Parking Stalls
6:00 AM
7:00 AM
8:00 AM
9:00 AM
10:00 AM
11:00 AM
12:00 PM
1:00 PM
2:00 PM
3:00 PM
4:00 PM
5:00 PM
6:00 PM
7:00 PM
8:00 PM
9:00 PM
10:00 PM
11:00 PM
12:00 AM
Members Club
Retail (over 2,000 ksf)
Fine/Casual Dining
Hotel
Total Supply

Project: Cheval Blanc Hotel, Beverly Hills
Description: Scenario B

Shared Parking Demand Summary																		
Peak Month: LATE DECEMBER -- Peak Period: 1 PM, WEEKDAY																		
Land Use	Project Data		Weekday					Weekend					Weekday			Weekend		
	Quantity	Unit	Base Ratio	Driving Adj	Non-Captive Ratio	Project Ratio	Unit For Ratio	Base Ratio	Driving Adj	Non-Captive Ratio	Project Ratio	Unit For Ratio	Peak Hr Adj 1 PM	Peak Mo Adj te Decemb	Estimated Parking Demand	Peak Hr Adj 1 PM	Peak Mo Adj te Decemb	Estimated Parking Demand
Retail																		
Retail (over 2,000 ksf)	24,976	sf GLA	2.90	75%	80%	1.74	ksf GLA	3.20	75%	80%	1.92	ksf GLA	100%	85%	37	95%	85%	39
Employee			0.70	50%	100%	0.35		0.80	50%	100%	0.40		100%	95%	9	100%	95%	10
Food and Beverage																		
Fine/Casual Dining	8,166	sf GLA	13.25	50%	80%	5.30	ksf GLA	15.25	50%	80%	6.10	ksf GLA	75%	95%	31	55%	95%	26
Employee			2.25	50%	100%	1.13		2.50	50%	100%	1.25		90%	100%	9	75%	100%	8
Hotel and Residential																		
Hotel-Business		keys	1.00	59%	100%	0.59	key	1.00	69%	100%	0.69	key	55%	55%	-	55%	55%	-
Hotel-Leisure	115	keys	1.00	33%	100%	0.33	key	1.00	33%	100%	0.33	key	65%	100%	25	65%	100%	25
Hotel Employees	115	keys	0.15	50%	100%	0.08	key	0.15	50%	100%	0.08	key	100%	100%	9	100%	100%	9
Restaurant/Lounge	16,928	sf GLA	6.67	47%	80%	2.51	ksf GLA	7.67	40%	80%	2.45	ksf GLA	100%	95%	40	100%	95%	40
Restaurant/Meeting Employees	16,928	sf GLA	1.20	50%	100%	0.60	ksf GLA	1.33	50%	100%	0.67	ksf GLA	100%	100%	11	100%	100%	12
Additional Land Uses																		
Members Club	500	Members	0.02	100%	100%	0.02	Members	0.03	100%	100%	0.03	Members	60%	100%	6	19%	100%	3
Employee			0.02	100%	100%	0.02		0.02	100%	100%	0.02		80%	100%	10	80%	100%	10
													Customer/Visitor		140	Customer		132
													Employee/Resident		46	Employee/Resident		47
													Total		185	Total		180



Peak Month Daily Parking Demand by Hour (Weekday)
Parking Stalls
0
20
40
60
80
100
120
140
160
180
200
6:00 AM
7:00 AM
8:00 AM
9:00 AM
10:00 AM
11:00 AM
12:00 PM
1:00 PM
2:00 PM
3:00 PM
4:00 PM
5:00 PM
6:00 PM
7:00 PM
8:00 PM
9:00 PM
10:00 PM
11:00 PM
12:00 AM
Members Club
Retail (over 2,000 ksf)
Fine/Casual Dining
Hotel
Total Supply



Peak Month Daily Parking Demand by Hour (Weekend)
Parking Stalls
0
20
40
60
80
100
120
140
160
180
200
6:00 AM
7:00 AM
8:00 AM
9:00 AM
10:00 AM
11:00 AM
12:00 PM
1:00 PM
2:00 PM
3:00 PM
4:00 PM
5:00 PM
6:00 PM
7:00 PM
8:00 PM
9:00 PM
10:00 PM
11:00 PM
12:00 AM
Members Club
Retail (over 2,000 ksf)
Fine/Casual Dining
Hotel
Total Supply

Appendix G – ULI Shared Parking Time-Of-Day Parking Demand for Events

Project: Cheval Blanc Hotel, Beverly Hills
Description:

Shared Parking Demand Summary																		
Peak Month: LATE DECEMBER -- Peak Period: 1 PM, WEEKDAY																		
Land Use	Project Data		Weekday					Weekend					Weekday			Weekend		
			Base Ratio	Driving Adj	Non-Captive Ratio	Project Ratio	Unit For Ratio	Base Ratio	Driving Adj	Non-Captive Ratio	Project Ratio	Unit For Ratio	Peak Hr Adj	Peak Mo Adj	Estimated Parking Demand	Peak Hr Adj	Peak Mo Adj	Estimated Parking Demand
	Quantity	Unit											1 PM	te Decemb		1 PM	te Decemb	
Retail																		
Retail (over 2,000 ksf)	24,976	sf GLA	2.90	75%	80%	1.74	ksf GLA	3.20	75%	80%	1.92	ksf GLA	100%	85%	37	95%	85%	39
Employee			0.70	50%	100%	0.35		0.80	50%	100%	0.40		100%	95%	9	100%	95%	10
Food and Beverage																		
Fine/Casual Dining	5,666	sf GLA	13.25	50%	80%	5.30	ksf GLA	15.25	50%	80%	6.10	ksf GLA	75%	95%	22	55%	95%	18
Employee			2.25	50%	100%	1.13		2.50	50%	100%	1.25		90%	100%	6	75%	100%	6
Hotel and Residential																		
Hotel-Leisure	115	keys	1.00	33%	100%	0.33	key	1.00	33%	100%	0.33	key	65%	100%	25	65%	100%	25
Hotel Employees	115	keys	0.15	50%	100%	0.08	key	0.15	50%	100%	0.08	key	100%	100%	9	100%	100%	9
Restaurant/Lounge	2,419	sf GLA	6.67	47%	80%	2.51	ksf GLA	7.67	40%	80%	2.45	ksf GLA	100%	95%	6	100%	95%	6
Restaurant/Meeting Employees	2,419	sf GLA	1.20	50%	100%	0.60	ksf GLA	1.33	50%	100%	0.67	ksf GLA	100%	100%	2	100%	100%	2
Additional Land Uses																		
Member's Club (Wellness Center Only)	12	visitors	1.00	100%	100%	1.00	visitors	1.00	100%	100%	1.00	visitors	0%	100%	-	0%	100%	-
Event Type A	150	visitors	0.50	100%	100%	0.50	visitors	0.50	100%	100%	0.50	visitors	100%	100%	75	100%	100%	75
Event Type B	75	visitors	0.50	100%	100%	0.50	visitors	0.50	100%	100%	0.50	visitors	100%	100%	38	100%	100%	38
Event Type C	50	visitors	0.50	100%	100%	0.50	visitors	0.50	100%	100%	0.50	visitors	100%	100%	25	100%	100%	25
													Customer/Visitor		228	Customer		226
													Employee/Resident		25	Employee/Resident		26
													Total		252	Total		251

Appendix H.4

Alley Study

HIRSCH GREEN
Hirsch/Green Transportation Consulting, Inc.

January 18, 2022

Mr. Masa Alkire, AICP
Principal Planner
Department of Community Development, Planning Division
City of Beverly Hills
455 North Rexford Drive
Beverly Hills, California 90210

RE: Updated Responses to April 10, 2020 Beverly Hills Department of Community Planning Initial Review Comment Letter on Cheval Blanc Hotel Specific Plan Project (PL2000138)

Dear Mr. Alkire,

This letter provides updated responses to the traffic and/or access-related comments contained in the City of Beverly Hills April 10, 2020 Department of Community Planning initial review letter regarding the proposed Cheval Blanc Hotel Specific Plan Project at 468 North Rodeo Drive; a copy of the Department's letter (including applicable supporting comments from Fehr & Peers, the City's contract traffic engineering consultant) is provided in the attachments. Specifically, this document addresses comments noted under the "Planning and Zoning Comments" heading ("Project Description Attachments" subheading, page 6) of the City's letter, including a request to study the traffic conditions in the north-south alley currently bisecting the project site (proposed to be modified by the project), as well as the effects of the project's access and construction activities on the alley operations. The following discussions also incorporate revisions to the project itself in response to comments received on the City's Draft Environmental Impact Report ("DEIR").

Alley Study

The subject alley is an approximately 20-foot wide, one-way southbound facility located mid-block between Rodeo Drive and Beverly Drive that connects South Santa Monica Boulevard on the north with Wilshire Boulevard on the south, as shown in Figure 1. Within the immediate vicinity of the proposed project, the alley provides access to loading and employee/customer parking areas for a variety of commercial and retail businesses fronting along both Rodeo Drive and Beverly Drive between South Santa Monica Boulevard and Brighton Way, along with an exit-only driveway for a private/public parking garage at 421 North Beverly Drive. The subject project proposes to vacate the portion of the alley adjacent to its currently individual parcels (in order to merge the separate project sites) and relocate the alley entrance to Beverly Drive, as indicated in Figure 2. As part of the City's initial review comments on the proposed project, Fehr & Peers noted that a study of the current (and anticipated future) operations of the alley should be provided to identify whether the proposed alley reconfiguration would impact other businesses using the alley.

CHEVAL BLANC HOTEL (BEVERLY HILLS) \ PHOTO-GENERAL AREA -1

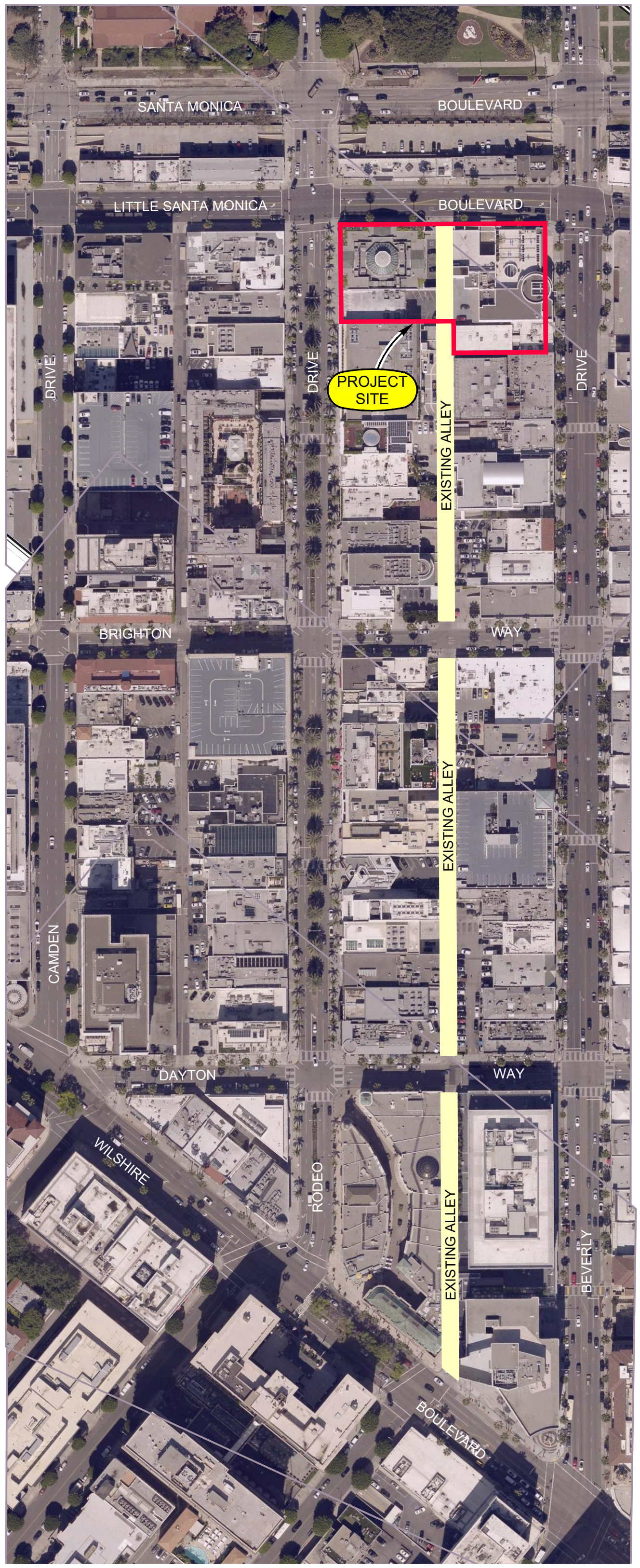


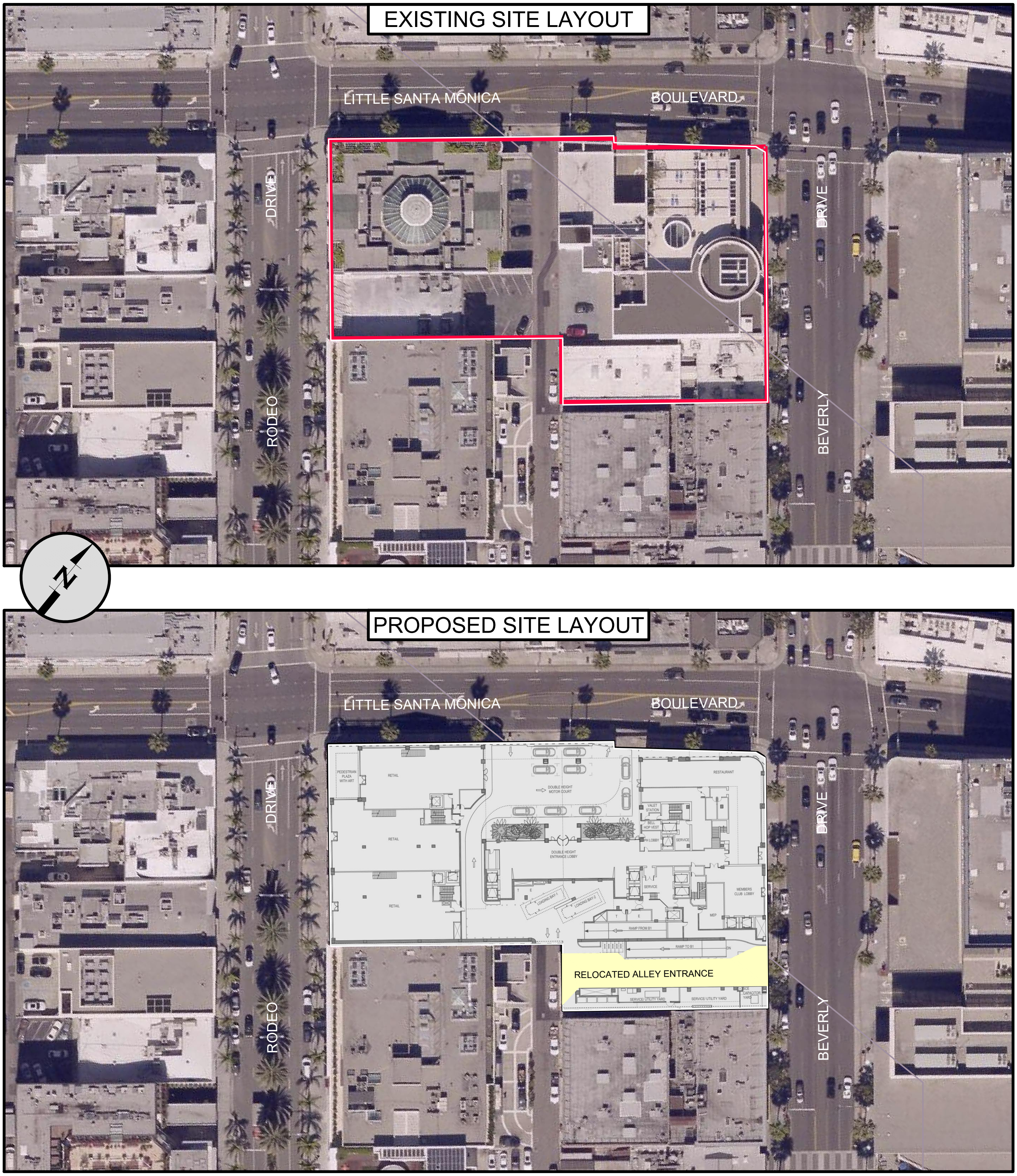
FIGURE 1

4/28/2020

Hirsch/Green Transportation Consulting, Inc.

PROJECT SITE AND EXISTING ALLEY LOCATION

CHEVAL BLANC HOTEL (BEVERLY HILLS) \ EXISTING-PROPOSED SITE PHOTO



12/23/2021

FIGURE 2

HIRSCH GREEN

Hirsch/Green Transportation Consulting, Inc.

PROJECT SITE LAYOUT AND
ALLEY ACCESS RECONFIGURATION

Alley Traffic Volumes

The amount of traffic currently using the alley was identified through a series of 24-hour counts conducted at the alley's South Santa Monica Boulevard entrance in April and May of 2019, including a total of eight weekdays, two Saturdays, and two Sundays (a total of 12 survey days). These counts represent typical weekday and weekend conditions during weeks with no holidays or other notable special events, with area schools and businesses exhibiting normal operations, and seasonal weather conditions (temperatures, rainfall, etc.) throughout the count period.

The results of the counts indicate that on weekdays, the alley exhibited an eight-day average of approximately 718 total vehicles per day, including a maximum of about 801 vehicles per day. The majority (about 67 percent) of these vehicles entered the alley via an eastbound right turn from South Santa Monica Boulevard, with the remainder entering from the westbound direction via a left turn move. Further, most of the observed alley traffic consisted of typical automobiles (654 vehicles per day, or about 91 percent) and single-unit (SU-30 or SU-40) delivery trucks (58 vehicles per day, or about eight percent), with garbage trucks and motorcycles making up the rest of the traffic (each averaging three vehicles per day, or about 0.5 percent of the total).

These daily averages are generally maintained during each of the three weekday "peak periods" (morning, mid-day, and afternoon/evening) examined for the purposes of this study. Specifically, during the AM peak hour (which typically occurred within the period from 8:30 AM to 9:45 AM), the alley accommodated an average of 110 total vehicles (with a maximum of 123 vehicles), including 103 automobiles (approximately 94 percent), six delivery trucks (roughly five percent), and one motorcycle. During the mid-day peak hour (which varied widely for each individual day, but with all occurring between 12:00 noon and 2:00 PM), an average of about 59 total vehicles (maximum of 75 vehicles) accessed the alley, including 52 automobiles (about 88 percent) and seven delivery trucks (about 12 percent), while during the weekday afternoon/evening peak hour (which also varied by day, although all occurred during the period between 3:00 PM and 5:15 PM), an average of about 48 total vehicles (including a maximum of 63 vehicles) entered the alley, including 43 automobiles (about 90 percent) and five delivery trucks (about 10 percent). As with the overall daily conditions, most of the peak hour alley traffic (between about 56 and 73 percent) entered via a right turn from South Santa Monica Boulevard.

Overall traffic in the alley on weekends was substantially lower than during the weekdays, with two-day averages of about 597 total vehicles per day (maximum of 610 total vehicles per day) on Saturdays, and of about 279 total vehicles per day (maximum of 283 vehicles per day) on Sundays. Again, most of this traffic (around 70 percent for each day) entered the alley via a right turn from South Santa Monica Boulevard, and was comprised primarily of typical automobiles, including about 570 vehicles per day (about 95 percent) on Saturdays, and about 274 vehicles per day (about 98 percent) on Sundays. The remaining average daily Saturday traffic consisted primarily of single-unit delivery trucks (23 vehicles, or approximately four percent of the total), although three garbage trucks and one semi-trailer truck were also observed. *However, while the averages suggest that a semi-trailer truck could be expected to access the alley on any typical Saturday, it is of note that only one semi-trailer truck used the alley during the 12-day observation period, on Saturday May 11, 2019 at 11:30 AM*. On Sundays, in addition to the 274 daily automobiles, an average of five single-unit delivery trucks per day were observed (about two percent of the total daily traffic for that day); no other types of vehicles utilized the subject alley on Sundays.

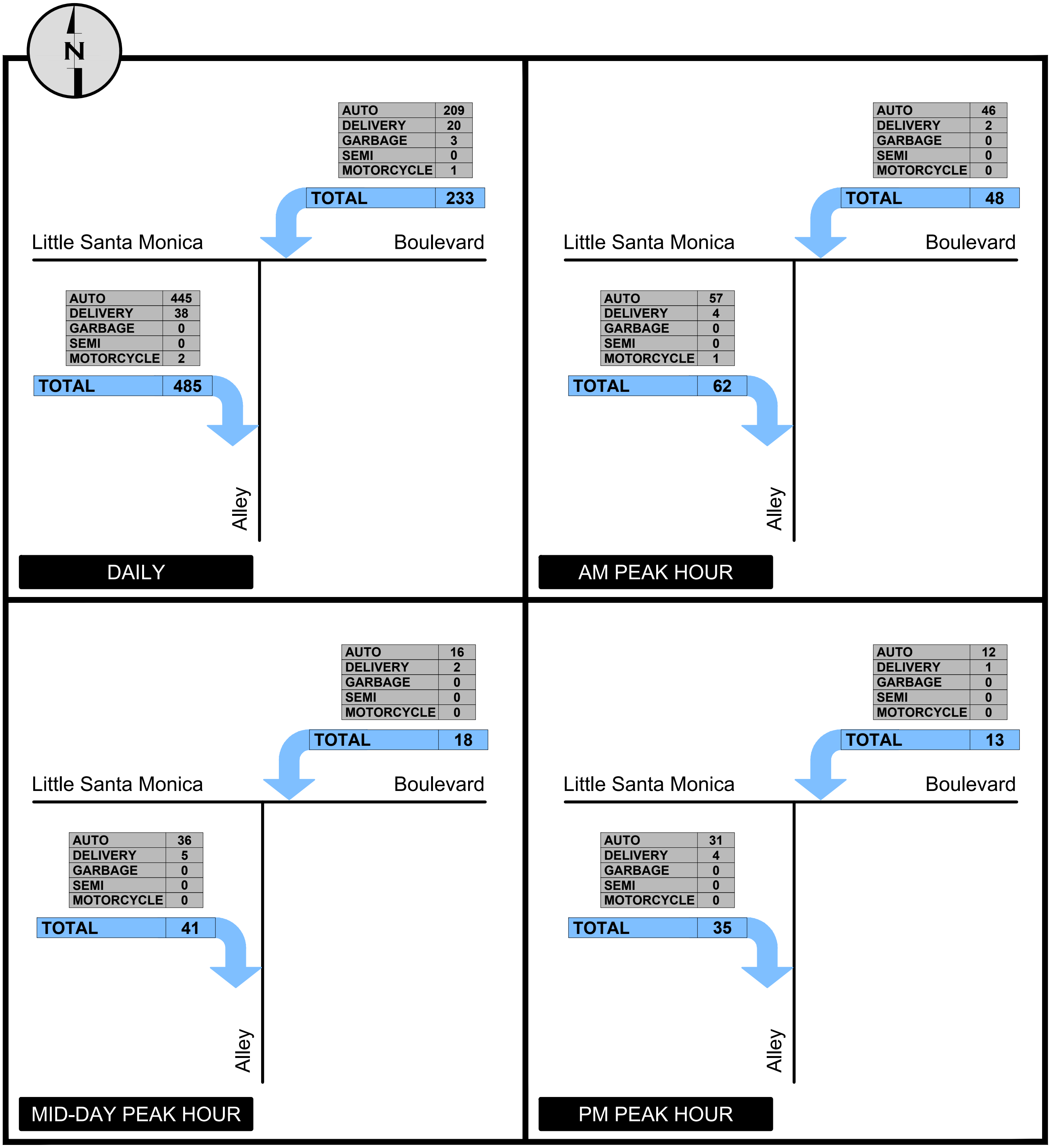
During the AM peak hour on Saturday (from 8:45 AM to 9:45 AM for both count days), the alley exhibited an average total traffic demand of about 98 vehicles (and a maximum of 100 vehicles), including 96 automobiles (approximately 98 percent), and two delivery trucks (about two percent), while during the mid-day peak hour (between 12:00 noon and 1:00 PM for both observed days), an average (and maximum) of about 61 total vehicles utilized the alley, including 58 automobiles (about 95 percent) and three single-unit delivery trucks (about five percent). During the Saturday afternoon/evening peak hour (which occurred from 3:00 PM to 4:00 PM on both of the count days), an average of approximately 53 total vehicles (with a maximum of 59 vehicles) used the alley, including 50 automobiles (about 94 percent) and three delivery trucks (about six percent). Again, the majority of the Saturday peak hour traffic (between about 58 and 74 percent) entered the alley via an eastbound right turn from South Santa Monica Boulevard.

Finally, on Sunday, during the AM peak hour (occurring generally between 8:00 AM and 9:30 AM), an average of approximately 14 total vehicles (maximum of 16 total vehicles) utilized the alley, including 13 automobiles (about 93 percent), and one delivery truck (about seven percent). During the Sunday mid-day peak hour (generally between 12:00 noon and 1:15 PM), an average (and maximum) of approximately 25 total vehicles, including 24 automobiles (about 96 percent) and one delivery truck (about four percent) used the alley, along with an average (and maximum) of about 38 total vehicles (all automobiles) during the Sunday afternoon/evening peak hour (which occurred during the overall time period between 3:15 PM to 4:45 PM). As with both the weekday and Saturday conditions described previously, most of the Sunday peak hour traffic (about 64 to 72 percent) entered the alley via a right turn from South Santa Monica Boulevard.

The average alley traffic volumes for the weekday daily (24-hour) and various peak hour periods are shown in Figure 3(a), while the average alley volumes during these same periods are shown for Saturday and Sunday conditions in Figures 3(b) and 3(c), respectively. The alley traffic counts for each of the individual surveyed days are provided in the attachments to this document.

As identified previously in Figure 2, the project's proposed relocation of the alley entrance from its existing location to Beverly Drive will require that vehicles currently making the right turn into the alley instead continue eastward on South Santa Monica Boulevard to Beverly Drive, where they would then turn right onto Beverly Drive in order to access the new alley entrance. However,

CHEVAL BLANC HOTEL (BEVERLY HILLS) \ ALLEY VOLUMES (WEEKDAY)



4/24/2020

FIGURE 3(a)

EXISTING ALLEY TRAFFIC VOLUMES
WEEKDAY (8-DAY AVERAGE)

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Hirsch/Green Transportation Consulting, Inc.

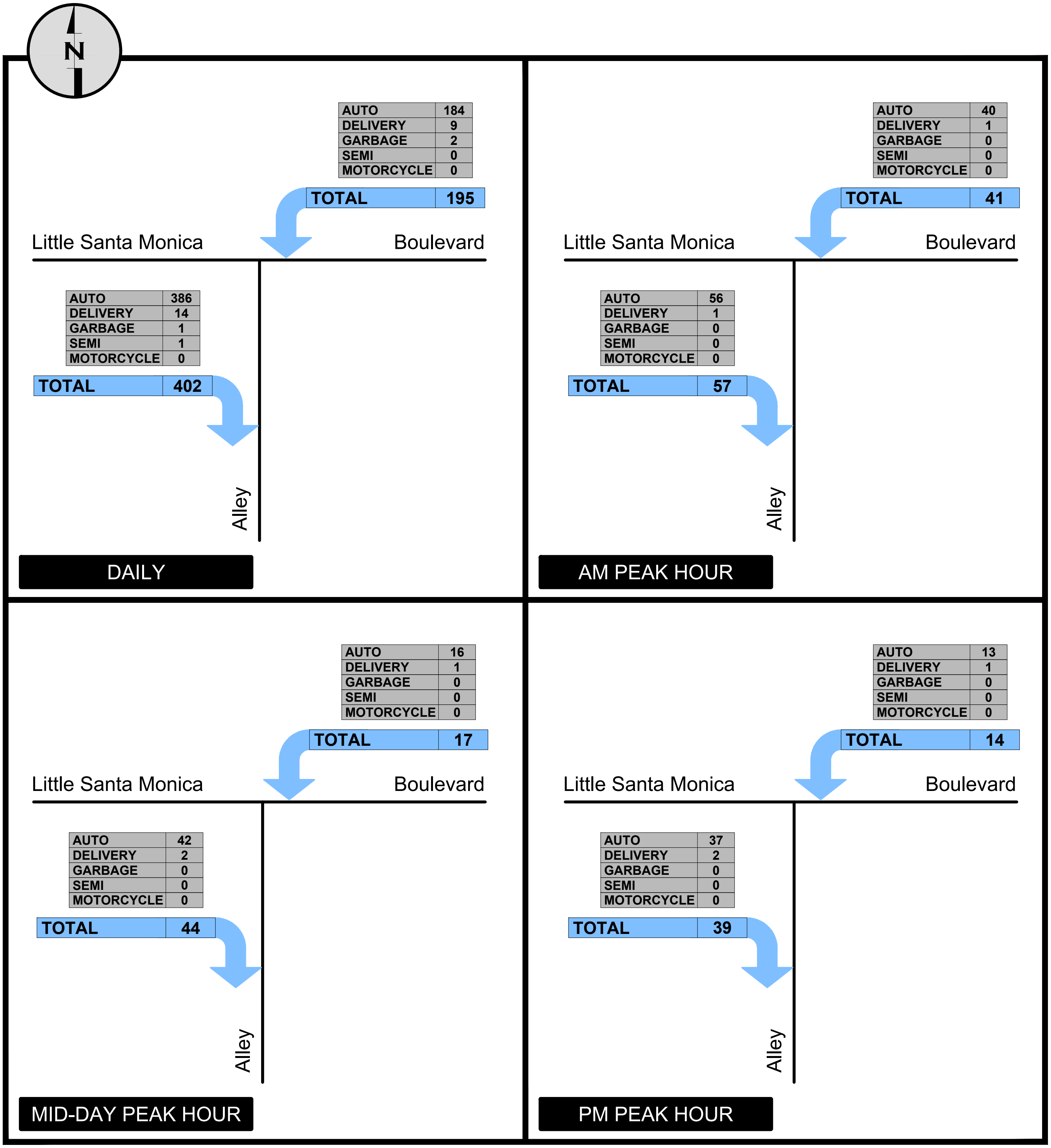
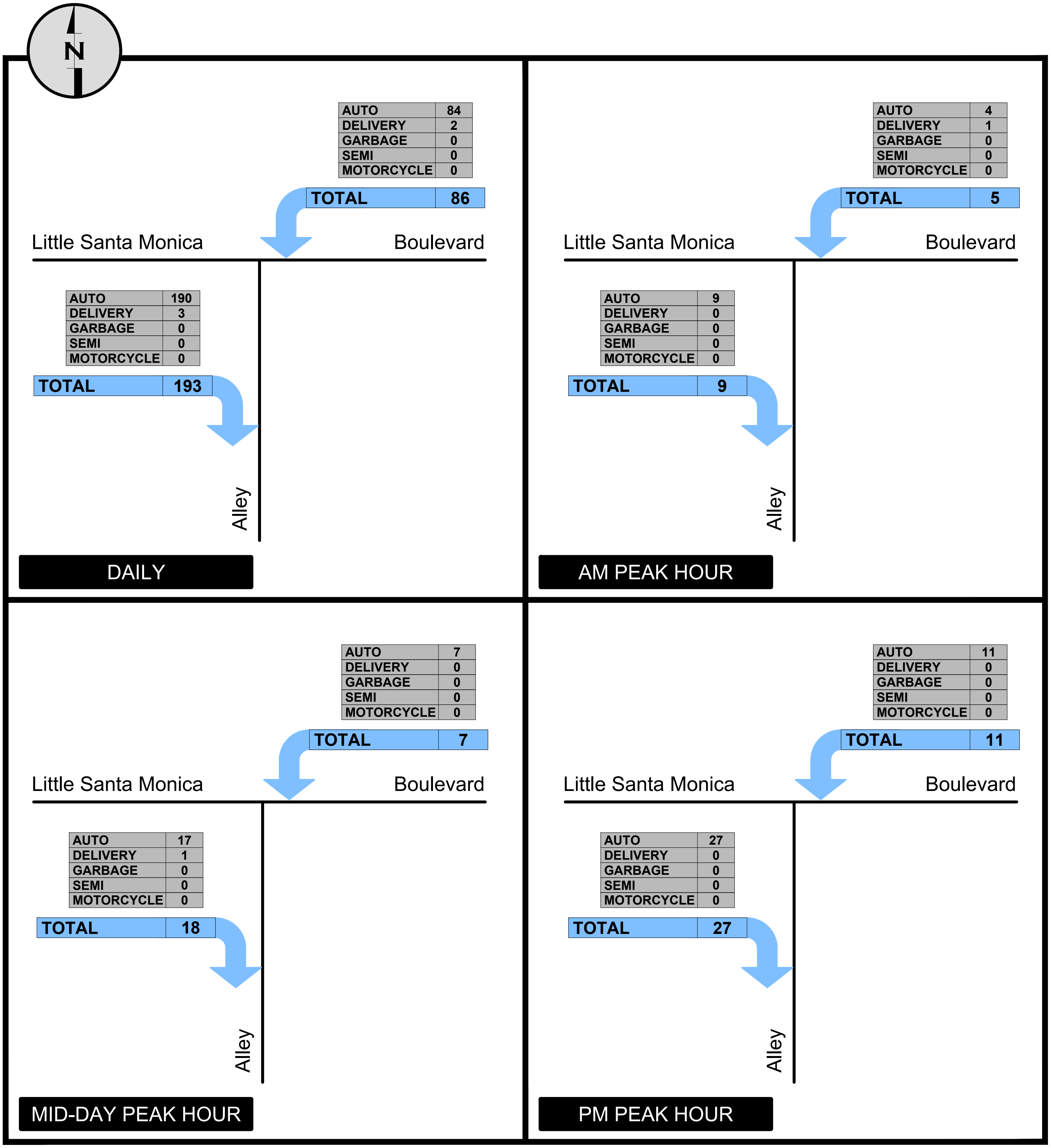


FIGURE 3(b)

HIRSCH GREEN
Hirsch/Green Transportation Consulting, Inc.

EXISTING ALLEY TRAFFIC VOLUMES
SATURDAY (2-DAY AVERAGE)

CHEVAL BLANC HOTEL (BEVERLY HILLS) \ ALLEY VOLUMES (SUNDAY)



4/24/2020

FIGURE 3(c)

HIRSCH GREEN

Hirsch/Green Transportation Consulting, Inc.

EXISTING ALLEY TRAFFIC VOLUMES
SUNDAY (2-DAY AVERAGE)

while this “redistribution” of the eastbound traffic entering the alley would likely increase the number of vehicles travelling through the intersection of South Santa Monica Boulevard and Beverly Drive, as described earlier, any such additional traffic would be relatively nominal, with a maximum of about 72 vehicles per hour during any of the typical weekday “peak hour” periods (AM, Mid-day, PM), and a maximum of approximately 65 vehicles per hour during any of these time periods on typical weekends (specifically, on Saturdays). This potential increase in traffic at the subject intersection would equate to only about one or two new vehicles per signal cycle, assuming that none of the existing eastbound alley traffic diverts to other travel routes following the relocation of the alley entrance, and further, would be right turns, some of which could occur as a “right-turn on red” move when eastbound South Santa Monica Boulevard traffic is stopped.

The number of vehicles passing through this intersection along the other approaches would be essentially unchanged, although they would exhibit somewhat different travel patterns (changing from southbound right turns to southbound through movements, from westbound through moves to westbound left turns, and eliminating the northbound left turn move). Therefore, the impacts of the proposed relocation of the alley entrance alone on the operations of the intersection of South Santa Monica Boulevard and Beverly Drive are expected to be minimal. Additionally, under the current configuration, large trucks (including both single-unit and semi-trailer trucks) entering the alley from the curb lane of eastbound South Santa Monica Boulevard must typically “swing wide” into the inboard eastbound lane (and potentially, into the westbound inboard lane and oncoming traffic) to make the turn without impacting the buildings on either side of the alley. As detailed later in this document, due to the wider curb lane (including on-street parking) on southbound Beverly Drive, such large trucks will be able to access the relocated alley entrance without encroaching into the adjacent (or oncoming) lane.

Alley Access and Operations

In addition to the relocation of the alley entrance, the proposed alley reconfiguration will require that vehicles using the alley make a 90-degree turn from the new east-west oriented portion of the alley (from Beverly Drive) in order to access the existing and unaffected north-south segment. As a result, additional evaluations were performed to assure that all of the various vehicle types observed accessing the alley could make this maneuver. As described earlier, the majority of the vehicles using the alley are typical automobiles (including light trucks, such as pickups and vans), although a number of larger single-unit delivery trucks and garbage trucks were also identified, along with one semi-trailer truck. Further, although not observed during the alley traffic counts, the reconfigured alley must also accommodate certain emergency vehicles, such as fire trucks.

Therefore, the turning movement evaluations were conducted for each type of vehicle that was either directly observed during the alley traffic counts or are anticipated to use the alley, including typical single-unit delivery trucks (SU-30 and SU-40), a semi-trailer truck (WB-40) of the size typically used for urban area deliveries, a typical garbage truck, two types of fire/rescue trucks similar to or larger than are used by the City[1], and an "articulated" ladder truck per specifications provided by the Beverly Hills Fire Department. The results of these evaluations, which are based on the project's current ground floor plan (dated "December 9, 2021"), are shown graphically in the attachments, indicate that all of these vehicle types will be able to make the left turn from the relocated portion of the alley to the remaining segment with little or no difficulty. Therefore, the proposed reconfiguration of the alley would not limit its use by any of the observed vehicle types, and since the portions of the alley south of the project site will be unaffected by its development, no significant impact to the existing operations of the alley for its other users are anticipated.

Additionally, vehicular access to the alley will be provided at all times during construction of the proposed project, so that no disruption in alley service for the existing businesses to the south of the project site will occur. As detailed in the proposed project's construction management plan (submitted under separate cover), the construction of the project will occur in multiple phases, with the first phase(s) involving the demolition of the eastern half of the project site, currently occupied by the Paley Center for Media building and adjacent 449 Beverly Drive building, and the subsequent excavation of that area in order to construct the project's subterranean levels. Vehicular access to the alley from its existing access location on South Santa Monica Boulevard will be maintained throughout this portion of the project's construction activities. This phase will also include the construction of the new segment of the alley, between Beverly Drive and the existing alley, atop the subterranean levels. Once the new alley segment has been completed, it will be connected to the remaining north-south portion of the alley, and the existing entrance from South Santa Monica Boulevard (along with the portions of the alley north of the new segment) will be closed and ultimately removed during subsequent phases of the project's construction. Note that the connection of the new alley segment with the remainder of the existing alley may require a temporary and short-duration closure of all access to the alley, although it is expected that this procedure can be accomplished during late weekday or weekend evening hours (with permission from the City) when alley activity is nominal to minimize impacts to alley operations.

As a result, based on these evaluations, the proposed alley reconfiguration will not affect access for any of the vehicle types observed to use that facility, up to and including semi-trailer trucks. Therefore, since neither the physical configuration nor the operational conditions of the portions of the alley south of the project site will be affected, the proposed relocation of the alley entrance is not anticipated to result in any significant impacts to other (non-project) users of the alley.

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[1] The City of Beverly Hills Fire Department provided specifications for a Caterpillar C12 Urban Search and Rescue Vehicle ("USRV") [e-*mail from Dept. Fire Chief J. Matsch, August 6, 2019*]. The AutoTurn software used for evaluating turn movements does not include this vehicle. Therefore, turning movements are provided for the Zahnen Rescue Unit, which is two inches shorter in overall length, but with a 24" longer wheelbase, than the Caterpillar C12 USRV. In addition, turning movements are also provided for the Smeal Aerial RM 55-foot vehicle, which is 24" longer overall than the Caterpillar C12 USRV.

Alley Access to Proposed Project Loading Docks and Subterranean Parking

As also shown earlier in Figure 2, vehicular access to the proposed project's on-site loading bays will be provided from the relocated portion of the alley. Delivery vehicles using the loading bays will enter the project site from the (relocated) alley, and then back into either of the two bays; once the loading/unloading activity is completed, the trucks will then exit the site into the alley to continue southward through the remaining north-south portion of the alley toward Brighton Way. New studies of the operations of the updated configuration of the project's loading bay area indicated that a typical SU-30 (single-unit) delivery truck, which is the type and size of vehicle anticipated to serve the proposed project, can accomplish the maneuvers necessary to access either of the two loading bays entirely within the project site, although it is also anticipated that multiple vehicle moves (all of which will be accommodated wholly within the project site, as shown in the attached graphics) will be required in order to exit from "loading bay 1" (the interior of the two loading bays) when another vehicle is occupying the adjacent (outermost) "loading bay 2".

Additionally, while larger trucks are not anticipated to utilize the proposed project's loading bays, a supplemental evaluation of the potential use of an SU-40 (single-unit) truck was conducted. As detailed in the earlier alley study prepared by our firm (dated "April 20, 2020"), that evaluation identified that an SU-40 truck could also enter and exit both of the loading bays, although such vehicles could encounter difficulty (due to their additional length and larger turning radii) when attempting to enter "loading bay 2" or exit from "loading bay 1", particularly when another vehicle is occupying the adjacent loading bay. These moves would require that the SU-40 truck encroach into the alley (backing up into the alley to provide the correct orientation). Due to these issues, the project will prohibit the use of "loading bay 1" by SU-40 trucks, although the loading bays have been redesigned to allow for the use of "loading bay 2" by SU-40 trucks without requiring multiple vehicle movements or encroachment into the alley. Graphics illustrating the entry and exit maneuvers of an SU-30 truck for both loading bays, and an SU-40 truck for "loading bay 2", both for when the adjacent bay is being used, are provided in the attachments.

However, it is of note that the loading bays are located in an area that will be used by vehicles returning from the proposed project's subterranean parking levels to the on-site porte cochere. Therefore, while adequate vehicular access to the project's on-site loading bays will be provided, in order to avoid conflicts with both "internal" (on-site) project-related vehicular circulation and general (non-project) alley operations, it is recommended that all deliveries to the project site that require the use of the loading bays be scheduled during the "off-peak" periods of the day, when traffic activity at the project site and/or in the alley are expected to be reduced. Further, during the delivery truck loading dock "entering" and "exiting" maneuvers, attendants should be provided to direct and/or control project and alley traffic, to further ensure that potential conflicts do not occur, and that acceptable vehicular circulation in the alley on the project site is maintained.

Summary and Conclusions

The evaluations of the Cheval Blanc Hotel Specific Plan Project's proposed relocation of the alley entry from its current location on South Santa Monica Boulevard to Beverly Drive indicate that no significant impacts to vehicular access or to the operations of the alley are expected. Further, the location and operations of the project's loading bays will be acceptable, and will not significantly impact the alley, although it is recommended that the project schedule deliveries for off-peak times, and provide attendants to assure that conflicts with alley traffic do not occur.

Please review the preceding and attached information and analyses, and feel free to contact me if you have any questions or comments.

Sincerely,

Ron Hirsch, P.E.
Principal

Cc: Ms. Deborah Quick, Perkins Coie

Attachments

ATTACHMENTS

CITY OF BEVERLY HILLS DEPARTMENT OF COMMUNITY PLANNING

INITIAL REVIEW COMMENT LETTER (APRIL 10, 2020)

CHEVAL BLANC HOTEL SPECIFIC PLAN PROJECT (PL2000138)

April 10, 2020

Deborah E. Quick
Morgan, Lewis & Bockius, LLP
One Market, Spear Street Tower
San Francisco, CA, 94105

RE: Initial Review of submitted application for the proposed Cheval Blanc Hotel Specific Plan Project (Specific Plan, Zoning Map and Zone Text Amendment, General Plan Amendment, Vesting Tentative Parcel Map, Encroachment Agreement, and Development Agreement) located at 468 North Rodeo Drive (PL2000138).

Dear Ms. Quick:

Staff has conducted a review of the above application, which was submitted to the City on March 12, 2020. At this time, the submitted application and plans have been deemed incomplete. Please note that due to the need for certain City staff to focus on providing essential City services during the on-going covid-19 pandemic, complete comments are not available from all City departments at this time. Responses to the following information requests and provided comments are required to continue evaluation of your application:

PLANNING AND ZONING COMMENTS

<u>Project Plans</u>

1) G001 – PARCEL, NUMBERS AND SITE AREA: Also identify the total parcel size of 55,606 SF as an additional line item as this is the size of the project site if the parcel map is approved.

2) G001 – FLOOR AREA AND FLOOR AREA RATIO: Add additional row “Gross Site Area – 55,606 SF”. In the ON PLANS column provide the actual PROPOSED MAX. FAR TOTAL SITE calculation (4.06?), move the 4.2 FAR calculation to the SPECIFIC PLAN MAX. column. Also move the 3.9 PROPOSED MAX. FAR ABOVE GRADE figure to the SPECIFIC PLAN MAX. column, provide the actual FAR (3.78?) in the ON PLANS column.

3) G001- Add a table that provides floor area by use type: “Hotel” (breakdown by subcategory, such as “Member Club”, “Public Restaurant”, “Hotel Restaurant”, “Spa/Wellness Center”), “Retail”, “Exempt Space” and “Total”. This table will be

used as a reference in the future regulation amendments proposed in the Draft Specific Plan.

4) G001- BUILDING HEIGHT – ZONING: delete ZONING from title. Retitle the text at the beginning of this section as “Current C-3 Height Requirement”. Modify the table REQUESTED HEIGHT/STORIES into ON PLANS column and SPECIFIC PLAN MAX. column. Create rows in this table to clearly identify the maximum height allowed for the various portions of the building. See comments in the height section of the attached Specific Plan markup for further information.

5) G001- BUILDING HEIGHT: The “calculation of the height of the building” paragraph needs to be substantially rewritten, as the proposed height measurement for this Project does not match the cited BHMC section. See the comments on the Draft Specific Plan, and update this section. The list of allowable height exemptions can reference the appropriate section of Cheval Blanc Specific Plan instead of being listed in their entirety on the cover sheet.

6) G001- CODE PARKING ANALYSIS: Retitle text at beginning of this section as “Current Requirements”. Retitle the table “Requested Parking Requirements”. Rename columns “Provided Spaces On Plans” and “Specific Plan Required Spaces” and fill the table in with applicable information. Rename “Ratio” column “Required Ratio”. Add rows to document parking credits the Project will utilize (in lieu parking, 50% hotel parking for retail credit, 15% project reduction credit). See comments in Draft Specific Plan regarding the 15% reduction credit. The credit rows should be filled in with negative numbers. The required and provided columns will then both have totals based on the sum of all rows included in the table.

7) G001- COMMERCIAL LOADING: Rename text at beginning of section “Current Requirements”. Change end of section to “Requested Loading Requirements”. Provide a table that includes columns: “Required Loading Space Type”, “Required Loading Space Size”, “Specific Plan Loading Space Requirement”, and “Provided Loading Spaces”.

8) G003- PLOT PLAN: Label location of height datum point. Provide elevation of height datum point. Label Pedestrian Plaza.

9) G003- PLOT PLAN: Clarify “Zero Lot Line No Setback” label. Is this a Specific Plan regulation, if so, include a setback regulation in the specific plan, and include a setback table on sheet G001 that identifies required and provided building setbacks. Identify the actual building distance from the lot line on the plot plan. There appears to be space between the lot line and the proposed building at both locations labeled “Zero Lot Line, No Setback”.

10) G004- SITE CROSS SECTION: On each section, provide depth measurements from the ground surface to the top of the underground encroachments. The depth

of these encroachments must meet or exceed the depth requirement proposed in the Draft Specific Plan (10 feet).

11) G004- SITE CROSS SECTION: Indicate the height datum elevation as a line across each elevation. Building height measurement should originate from this line. Provide a building height envelope line that visually represents the requested maximum building heights that are included in the Draft Specific Plan.

12) A101 to A103- BASEMENT LEVELS: Provide directional indicators for one way and two way drive aisles; provide dimension for drive aisle widths (one way and two way); on each sheet provide measurements for typical stall sizes for standard spaces, tandem spaces, compact spaces, and loading bays; provide measurements indicating additional required clearances from obstructions, such as building columns; label each tandem stall; provide ramp slope information for both transition slopes and main slopes.

13) A101 to A103- BASEMENT LEVELS: Revise the PARKING SUMMARY table on each sheet to identify tandem spaces on a per stall basis. This will double the number of spaces. This will allow the table to sum correctly and better mesh with the regulations requested in the draft Specific Plan.

14) A101 to A103- BASEMENT LEVELS: Provide electric vehicle charging information on applicable levels. The Green Building Code requires that a certain number of vehicle charging stations be provided. In addition vehicle charging was identified as a project feature in Section 4.9 of the draft Specific Plan.

15) A103- B1: Identify location of bicycle parking and bicycle amenities compliant with the Green Building Code and Sections 4.4.D and 4.9 of the draft Specific Plan.

16) A103- B1: The back-up area for Loading Bay 1 does not appear to be compliant with the loading space access requirements of 4.4.C. There appears to be a conflict with the most eastern parallel space.

17) A111- A192 All floor plans: Provide setback distances of the structure from property lines. At the ground level it appears that the building is setback from the southern interior property lines. Upper levels of the building are stepped back from the property line, provide information on those step back distances.

18) A111- GROUND LEVEL: Include directional information on vehicle drive aisles and ramps, provide width of drive vehicle drive aisles. Provide slope information for ramps.

19) A111- GROUND LEVEL: The configuration of the two truck loading bays appears to conflict with the draft Specific Plan's minimum drive aisle requirement for one way traffic.

20) CIRCULATION COMMENT: Provide a separate exhibit that provides turning radius information (AutoTURN) for vehicles that could access the site, such as identified delivery vehicle types, emergency vehicles and standard passenger vehicles.

21) A111- GROUND LEVEL: Label taxi/ride share spaces. Provide dimensions for all loading/drop-off and valet vehicle spaces in the motor court.

22) A121- SECOND LEVEL: Provide more detailed information regarding the dimensions and configuration of the Porte Cochere, as this sheet is referenced in draft Specific Plan Section 4.3 as the control on the size and attachment of this feature.

23) A151- 5th LEVEL: Provide height of glass guardrail and landscaped planter box located on guestroom balconies, provide height of operable awning.

24) A161- 6th LEVEL: Provide height for the following features: cabana shade structures, main shade structure, acoustic barrier, and exterior rooftop bar.

25) A171- 7th LEVEL: Provide building step back measurements; provide height of acoustic barrier, glass guardrail, and operable awnings on guestroom balconies.

26) A181- 8th LEVEL: Provide building step back measurements: provide height of acoustic barrier, glass guardrail, and operable awnings on guestroom balconies.

27) A191- 9th LEVEL: Provide building step back measurements: provide height of acoustic barrier, glass guardrail, planters for landscaping, trellis, shade structure, and operable awnings on guestroom balcony.

28) A192- LOW ROOF PLAN: Provide distance of mechanical enclosure from property lines. Provide height of screen wall.

29) A193- HIGH ROOF PLAN: Provide height of rooftop features.

30) ALL FLOOR AREA DIAGRAMS: Provide a floor area total for each of the use types that are color coded on each diagram sheet. Add an additional sheet that provides a table that tallies the floor area identified on each level. This new sheet should match the information in the new table requested on G001 (see Comment 3 above). Create a separate Outdoor Areas category, do not combine it with exempt space (MEP, Cores, shafts). Provide separate calculations for outdoor dining areas and other outdoor space. On each sheet provide the area of each elevator lobby exclusion.

31) ALL ELEVATIONS AND SECTIONS: Add the height datum as a line across the elevation. Provide a building height envelope that indicates the maximum allowable heights of the building. Include rooftop features on all elevations and indicate the height of the rooftop features. Include measurement on sections

identifying the depth of the portions of Level B2 that project beyond the property line.

Project Description

1) Provide more information on the Private Club use. This Project Description discussion should inform the regulations that you add to the draft Specific Plan that are applicable to the Private Club. The operation of the club within the hotel facilities, hours of operation, membership and guest policy should all be addressed. Questions include: the maximum number of members, the maximum occupancy of the club, the number of allowable guests per member, how will events be held at the club, and how does the lobby entrance on Beverly drive operate for pedestrians and vehicles? The operation of the Private Club could inform parking demand and should be directly addressed in the parking demand analysis.

2) Add information to the construction phasing discussion that address when the alley realignment will occur. This information will be an important consideration when construction related traffic impacts are analyzed. Also see the Public Works Engineering comments in this letter.

3) The appropriate recommended export hauling route will need to be discussed with the City's Traffic Engineer.

4) Provide specific in lieu parking information, including a copy of the covenant recorded against the property.

5) P.1 and P.5- Update to include proposed parcel size (1.275 acres), identify the 1.2 acres is exclusive of the alley area.

6) P.3- According to the plans the Private Club entrance is from Beverly Drive, not the alley.

7) P.8- Allowable construction hours in Beverly Hills start at 8 AM: BHMC 5-1-205. update Phase 1 information to reflect this requirement.

8) P.9- Provide a basis for the use of a 25% bulking/fluff factor.

9) P.11- Provide verification information that the cited privately owned sites have surplus parking available above the required parking for those sites, that can be used to provide construction employee parking for this Project.

10) P.11- Table 4: Why are operational hours identified as extended hours? That is a specific permit type in the BHMC that this Project does not require.

11) P.12- Application types: The application includes a submittal for a Vesting Tentative Parcel Map, not a Tract Map. Add Specific Plan to the list of requested entitlements.

<u>Project Description Attachments</u>

Exhibit 1 – Parking Demand Analysis

1) Please review the City's Traffic Engineer comments below and review the comments of the City's traffic peer reviewer (Attachment 2) regarding Parking Demand and the Motor Court.

2) Table 3 – Parking Tabulation: identify in lieu parking as a row in the table and include the number of in lieu spaces as a negative number. Include a row in the table for the 15% reduction and include a negative number of spaces to account for the reduction. The 170 space total identified in this table does not match the project plans.

Exhibit 2- Valet Parking Management Plan

3) Please review the comments of the City's traffic peer reviewer (Attachment 2) regarding the valet parking plan.

4) Please provide more information as to when drive aisle stacked parking will be used. Is this intended for occasional use, such as during events or other functions of the Private Club?

Additional Traffic Peer Review Comments

5) Submit an Alley Study. Please review the City's traffic peer reviewer comments regarding submittal of an alley study for the Project.

Exhibit 3- Loading and Deliveries Narrative

6) The 12' by 35' spaces located on the ground level appear to conflict with the required drive aisle for vehicles exiting the ramp from B1, please clarify whether there is a conflict.

7) Provide information to describe an SU-30 truck and proof that this would be the largest delivery vehicle that would visit the site. Provide information whether the provided spaces are large enough for an SU-30 truck.

8) Provide a weekly or monthly estimated delivery schedule that includes both retail and hotel deliveries. It should include delivery type, size of vehicle used, and number of deliveries per week/month.

9) Please clarify the statement “if the City of Beverly Hills is hosting a large event”. What does the statement refer to?

Exhibits 4 through 7
Thank you for providing two Historic Resource Assessments and building permit records for two of the sites. This information will be peer reviewed as part of the CEQA environmental review process.

10) Preliminary comment: The two assessments should analyze the National and California register criteria separately, and specifically with respect to the criteria relating to the significance of buildings that are less than 50 years old.

Exhibits 8 though 12
Thank you for providing the five geotechnical and seismic reports. These will be reviewed as part of the CEQA environmental review of the Project.

Draft Specific Plan

1) Please review the comments included in the attached marked-up Draft Specific Plan (Attachment 1) and resubmit a revised version of this document.

Draft Specific Plan Figures

1) Figure 3- EXISTING SITE CONDITIONS: Provide the boundaries of the existing parcels on the exhibit.

2) Figure 5- MODIFIED ZONING AND LAND USE: The zoning and general plan maps will need to be updated to also include the M-PD-5 zoning and land use designation.

3) Figure 6- SPECIFIC PLAN LAND USE CONCEPTS: The east elevation identifies retail at the corner of North Beverly Drive and South Santa Monica Boulevard. This appears to be inaccurate.

4) Figure 7- BUILDING PLACEMENT: This figure is cited on page 7 of the Draft Specific Plan as controlling the size and configuration of the pedestrian plaza. If the figure is used for this purpose additional information needs to be included regarding the plaza, including : plaza dimensions, art location, as well as distances from obstructions for the art piece location, and ADA paths of travel in plaza.

5) Figure 8-SURROUNDING CIRCULATION: Provide the City’s street classifications of the streets included in this exhibit.

6) Figure 9- SITE CIRCULATION: Provide directional information for alleys, on-site drive aisles and ramps.

7) Figures 10 to 12- PARKING PLANS: Update based on comments provided for the parking levels on the Plans.

8) Figure 13 to 18- UTILITY PLANS: These will need to be updated as more information becomes available.

9) Figure 29- AT-GRADE LOADING SPACES: Provide a separate exhibit to provide more detailed information regarding the utility yard and SCE capacitor yard. This exhibit should include screening information, access information, and provide information on the appearance from North Beverly Drive.

10) Figure 30- BUILDING HIEGHT: Identify 266' elevation as the height datum point for the project. Identify that all heights in exhibit are measured from the datum point. Label each height with the building feature that is measured (i.e. Rodeo Drive adjacent commercial, pool deck area, penthouse pool deck, etc.). Provide a table on this sheet that lists the height limitations of the Specific Plan.

11) Figure 31- OUTDOOR DINING GROUND FLOOR: Provide overall dimensions and area of outdoor dining area. Provide dimensions and area of outdoor dining on the public right of way and the outdoor dining on private property. Provide unobstructed width for adjacent sidewalk. Provide distance measurement between outdoor dining area and obstructions (i.e. tree well to the east)

12) Figure 32- OUTDOOR DINING LEVEL 6 & 7: Provide the area of each identified outdoor dining area, add a table that totals outdoor dining areas of the Project.

13) Figures 35 and 36- ELEVATIONS: Add a line that indicates project height datum. Provide height measurements to different features on each elevation. Identify the maximum height envelope. Show rooftop structures.

14) Figures 39 and 40- OUTDOOR LIVE ENTERTAINMENT: Identify height of acoustic barriers.

Vesting Tentative Parcel Map

1) Increase the differentiation between the lines used for "Existing Lot Line" and "Proposed Easement".

2) The area delineated by "Proposed Underground Building Limits" do not appear to match the configuration of underground parking as shown in the project plans.

Encroachment Permit (Subsurface Encroachment)

1) Add a request letter to the application requesting the encroachment and articulating why the encroachment is proposed.

2) Submit the encroachment fee ($8490).

3) Submit the legal description and plat for the encroachment area for review.

Application

1) Attachment #4: Update to add Specific Plan and modify Vesting Tentative Tract Map to Vesting Tentative Parcel Map. Modify Encroachment Permit request to identify subsurface parking structure and remove above surface awnings.

Traffic Engineer Comments

1. Include an additional 1-FT width for parking spaces adjacent to obstructions/walls.

2. Include 26- foot-back up space for standard, compact, and tandem spaces.

3. Include “entrance” and “internal” ramp slopes.

4. Stack spaces shall meet the City’s parallel parking standard guideline.

5. Check with Community Development/ Public Works regarding statement: “[t]en (10) feet below grade, parking spaces and aisles may extend under the public sidewalk up to the existing cub.”

6. Reduce compacted parking limitation from 25% to 10%.

7. Provide more information regarding “In Lieu Parking” to ensure those spaces are allocated to the uses permitted by BHMC Title 10, Article 33.

Public Works Department Comments

1) Please review the attached April 2, 2020 Memorandum from the Civil Engineering Division of the Public Works Department (Attachment 3).

Urban Designer Comments

Historic Preservation and Preliminary Architectural Review Comments
General Comments – Technical Reports

1. At this time, materials related to the historic nature of the subject properties that has been provided by the applicant include:
    a. Historic Resource Assessment Report for 461 North Beverly Drive (Paley Center)
    b. Historic Resource Assessment Report for 468 North Rodeo Drive (formerly Brooks Brothers)
    c. Overview building permit history

2. In the environmental document that will be prepared for the proposed project (whether an EIR or other), a comprehensive overview of all of the subject properties' architectural descriptions and histories should be provided.
    a. Please explain the decision to provide Historic Assessment Reports on two properties only. An analysis should be provided initially studying each property and explaining why further historic analysis was not required.
    b. Permit history documentation has been provided loosely by the applicant. This information should be reviewed and synthesized by the applicant's historic consultant and included in the comprehensive overview.
    c. Additional background on 461 North Beverly Drive (Paley Center) should also be provided to conclude the evaluation of the Master Architect's work with an understanding of any publications in which the structure had appeared and/or any design awards received (See Section 6, etc.).

3. Based on the scope of the project and the historic assessment reports provided, a peer review will be required, to be conducted by the City's historic consultant, Ostashay & Associates Consulting, for which a deposit is required to be remitted. Additional peer review will be required of the environmental document when it is prepared (i.e. EIR or other).

Architectural Comments – Preview – Drawing Set

1. Consider closely vehicular circulation that extends beyond the building footprint and onto City streets, etc. A careful review of this component of the project, in conjunction with a traffic analysis, should be undertaken to ensure vehicular circulation does not negatively impact pedestrian circulation and busy existing traffic patterns at the site (south Santa Monica Boulevard and North Beverly Drive).

    General Plan: CIR 1.4a Strive to maintain vehicle flow on City roadways and intersections. Congestion may be accepted, provided that provisions are made to improve the overall system and/or promote non-motorized transportation, such as bicycling and walking, as part of a development or City-initiated project. (Imp. 3.7)
    General Plan: CIR 6.7 Multi-Modal Design. Require proposed development projects to implement site designs and on-site amenities that support alternative modes of transportation, and consider TDM programs with achievable trip reduction goals as partial mitigation for project traffic impacts. (Imp. 3.7)
    General Plan: LU 2.8 Pedestrian-Active Streets. Require that buildings in business districts be oriented to, and actively engage the street through design features such as build-to lines, articulated and modulated façades, ground floor transparency such as large windows, and the limitation of parking entries directly on the street. Parking ingress and egress should be accessed from alleys where feasible. (Imp. 2.1)

General Plan: LU 11.4 Parking in Pedestrian-Oriented Districts. Require that driveways be minimized in pedestrian oriented commercial districts to avoid interruptions in the continuity of the pedestrian shopping experience, prioritizing driveway locations to side streets and alleys wherever feasible. (Imp. 2.1, 2.2)

2. In the current iteration of the design, the hotel lobby is sequestered within the massing at the ground level and accessible only through the vehicular circulation area off of South Santa Monica Boulevard. A pedestrian presence for the hotel may be considered off of the major City arterials, e.g., North Rodeo Drive to complement the proposed retail district and to afford general public access. Further consideration of a pedestrian friendly public entrance for the main programming of the project would also create a visual presence on the main street-facing elevation(s) and better inform the architecture as it addresses the public way.

   General Plan: LU 11.3 Retail Street Frontages. Require that development and street frontages in districts containing retail uses be designed and developed to promote pedestrian activity including: (a) location and orientation of the building to the sidewalk; (b) transparency of and direct access to the ground floor elevation from the sidewalk; (c) articulation of street-facing elevations to promote interest and sense of quality; (d) inclusion of uses and public spaces that extend interior functions to the sidewalk such as cafes and plazas; and (e) use of pedestrian oriented signage and lighting. (Imp. 2.1, 2.2)

3. Further consideration may also be given to creating a more uniquely contemporary architectural expression in design and materiality that responds to our own time, while imbuing the sense of timeless elegance suggested in the current design iteration.

   General Plan: LU 2.4 Architectural and Site Design. Require that new construction and renovation of existing buildings and properties exhibit a high level of excellence in site planning, architectural design, building materials, use of sustainable design and construction practices, landscaping, and amenities that contribute to the City's distinctive image and complement existing development. (Imp. 2.2, 2.3)
   General Plan: LU 11.2 Site Planning and Architectural Design. Require that commercial and office properties and buildings are planned and designed to exhibit a high level of site and architectural design quality and excellence. (Imp. 2.1, 2.2)

Plan Review Engineer (Building Safety) Comments

The purpose of this review is for a high-level preliminary conceptual review only. This is not a comprehensive plan review and or concept review. Other corrections may follow, after complete plans are submitted that are suitable for a thorough review.

Additional comments will follow when complete and fully dimensioned plans are submitted for thorough plan review.

1. Since the proposed project is a high-rise building, it shall comply with all the applicable requirements of Section 403 of 2019 CBC including but not limited to:
    - 403.3.3 Secondary water supply
    - 403.5.1 Remoteness of interior exit stairways
    - 403.5.2 Additional interior exit stairway
    - 403.6 Elevators (including enclosed elevator lobbies)

2. Please clarify whether nonseparated occupancies are used per Section 508.3 of 2019 CBC.

3. The building elements shall have a fire-resistance rating not less than that specified in Table 601 and exterior walls shall have a fire-resistance rating not less than that specified in Table 602. Where required to have a fire-resistance rating by Table 601, building elements shall comply with the applicable provisions of Section 703.2. The protection of openings, ducts and air transfer openings in building elements shall not be required unless required by other provisions of this code.

4. The maximum area of unprotected and protected openings permitted in an exterior wall in any story of a building shall not exceed the percentages specified in Table 705.8. Please provide required calculation to verify the maximum area of openings on the south and west (facing alley) sides of the building.

5. Please provide complete egress analyses for each space, story and entire building and show compliance with the corresponding sections in CH 10 of CBC:
    - Occupant Load (Section 1004)
    - Means of egress sizing (Section 1005)
    - Number of exits and exit access doorways (Section 1006); Egress from each space (1006.2) and egress from stories or occupied roof (1006.3)
    - Separation between required exits (1007.1)
    - Accessible means of egress (Section 1009)
    - Exit access travel distance (Section 1017) and common path of egress travel distance (Table 1006.2.1)
    - Exit discharge (Section 1028)

6. Exits shall discharge directly to the exterior of the building. The exit discharge shall be at grade or shall provide a direct path of egress travel to grade. The exit discharge shall not reenter a building. The combined use of Exceptions 1 and 2 shall not exceed 50 percent of the number and minimum width or required capacity of the required exits. (Section 1028)
   The exits discharge the occupants to a location where it is still under the building. Please clarify.

7. Provide required number of exits in the Members Club area at third level, Spa in 4th and 5th levels and the restaurant in 6th floor.

8. Guest rooms shall comply with the accessibility requirements of CH. 11B and minimum number of guest rooms with mobility features and with communication features shall comply with Tables 11B-224.2 and 11B-224.4, respectively.

9. A complete and detailed construction means and method is required to elaborate all construction phases in detail including but not limited to shoring, excavation, haul route, tower crane installation, traffic control plan, etc.

10. Please clarify and elaborate fire department access to all sides of the building specially in the south, west and south west sides from the alley.

11. Please show a complete accessible path of travel from public way AND accessible parking spaces to all floors.

12. Please delineate long-term and short-term bicycle parking spaces with the minimum required vs provided bicycle parking stalls.

13. Please clarify and show the location and number of EVCS and accessible EVCS spaces on plans.

Should you have any questions regarding the above comments, please feel free to contact me at (310) 285-1135, or by email at malkire@beverlyhills.org.

Sincerely,

Masa Alkire

Masa Alkire, AICP, Principal Planner

Attachments:
Attachment 1: Draft Specific Plan Mark-up
Attachment 2: City Traffic Peer Reviewer Memo
Attachment 3: Public Works Engineering Memo

FEHR & PEERS

CHEVAL BLANC
INITIAL REVIEW OF SITE PLAN, SITE ACCESS AND PARKING

Specific Plan (March 12, 2020)

No transportation comments on Specific Plan; noted items below that relate to the other studies submitted to ensure consistency and clarity on project description.

Luxury hotel with private club, restaurant, lounge, bar and other appurtenant uses, ground floor and second floor retail:

- Up to 115 hotel rooms
- Member's club – 7 KSF
- Restaurant – 20 KSF
- Retail - 24 KSF
- Parking – 172 spaces
- Motor Court – 9 pick-up/drop-off spaces (including 2 ridesharing spaces) + Truck loading may be used for pick-up/drop-off during peak event times
- Loading – Two truck loading spaces (35-feet)

Existing uses consist of approximately 57 KSF retail and 65 parking spaces:

- Brooks Brothers - 20,265 square feet and six surface parking spaces
- Celine - 6,895 square feet and nine surface parking spaces
- Formerly the Paley Center for Media - 23,351 square feet, five surface parking spaces and 45 underground parking spaces
- Three small retail shops (a beauty supply store, a jewelry store, and a pop-up shop) and a storage facility - 6,276 square feet

Parking Analysis Study (March 10, 2020)

<u>Parking Demand</u>

- Empirical Data for Beverly Hills and Vicinity: Confirm that 3 Year Trend of Luxury Hotel Overnight Drive-In Rates (page 6) reflects Hotels in Beverly Hills
- The method for estimating hotel overnight demand and guest demand is reasonable (page 7):
    - 38 overnight guest parking spaces (25% of demand)

  - 115 transient visitor parking spaces (74% of demand)
  - 153 total parking spaces
- Comments on Table 2 – Parking Demand for the Cheval Blanc Project:
  - Total visitor parking demand of 153 spaces is reasonable based on data provided
  - The reduction of 94 parking spaces due to lack of banquet facilities may be unreasonable due to the following:
    - The study is assuming that 94 of the 264 parking spaces at the Peninsula are devoted to public assembly (36% of parking) for a 2,630 square foot banquet facility and reducing the demand at the Cheval Blanc by 94 spaces since it doesn't have banquet facilities.
    - The transient parking demand of 75% of total guest parking accounts for some banquet use but the extent of banquets/special events is unclear. Since this is based on average daily demand, the extent of banquet/special event parking may be low when averaged throughout the week, and therefore subtracting 94 spaces from this demand may not be reasonable.
    - The amount of public assembly parking required per BHMC (1 space per 28 SF) for each of the hotels may be misleading; in comparing the BHMC code requirements to the total amount of parking provided at the hotels, the percentage of parking demand being assigned to the assembly space is 36% at the Peninsula (94 of 264 total spaces) and 83% at the Waldorf Astoria (261 of 314 total spaces).
    - The proposed hotel has a 7,000 square foot private club. The parking demand for the club is not factored into the parking demand and could be similar to, or potentially higher, than the 2,630 square feet of public assembly space at the Peninsula Hotel.
  - It is unclear how the retail demand of 69 spaces is calculated.
    - Does the demand include retail and restaurant space?
    - Does the demand include the 50% credit for retail uses associated with hotels as noted in Table 1?
    - Does the demand factor in the in-lieu parking credits for existing retail uses?
  - No data is provided on how the employee parking demand of 30% of 120 employees per shift was developed.
- Comments on Table 3 – Parking Tabulations from Cheval Blanc Specific Plan

  - o It appears that the only difference in parking demand between Table 1 and Table 3 is the 23 additional parking spaces required for BOH in Table 1. It is unclear why the BOH operations were not included in Table 3.
- General Comment on Parking Demand: It appears that if the BHMC requirements were applied to the project as shown in Table 1 and the study clearly accounted for the in-lieu parking credits of 49 spaces noted in Table 3, then the project would be able to show that it is meeting it's required parking demand through a combination of on-site supply and off-site in-lieu parking.

Motor Court

- Total demand is estimated at 11 spaces; project is proposing 9 spaces
- Total demand does not account for 7,000 sf private club
- In comparison to other hotels, the motor court appears to be sufficient to accommodate expected demand
- Point of clarification – Does motor court provide vehicle egress from underground parking onto South Santa Monica Boulevard? If so, vehicle queuing capacity in the motor court for vehicles exiting onto South Santa Monica Boulevard should also be shown on the site plan.

Valet Parking Management Plan

- The overall assumptions and conclusions of the valet management plan are reasonable
- The valet study includes additional detail on the number of standard and tandem spaces that would be helpful to incorporate into the overall parking study; more clarification on who is using the standard vs. tandem spaces in comparison to their anticipated parking demand should be incorporated into the parking study.
- In addition, the valet study shows how additional parking demand can be met, if needed, through stacked parking in the drive aisles. Stacked parking would provide 64 additional parking spaces. Given that the project is not meeting BHMC parking requirements, it would be helpful for the parking study to note that demand during peak periods or special events associated with the private club could be accommodated through this additional stacked parking.

Additional Comments

- Request Alley Study – An alley study should be prepared in consideration of the other existing uses that may be impacted by the realignment of the alley. The alley study should contain the following:
  - Existing daily traffic volumes entering alley from S. Santa Monica Boulevard and exiting alley onto Brighton Way (including AM and PM peak hour turning movement volumes so that directionality of travel to/from the alley is known)
  - Number and type/size of trucks utilizing existing alley
  - Diagrams showing how trucks and emergency access vehicles will access realigned alley and turning movement radius for east/west to north/south alley transition
  - Summary of any impacts to adjacent business resulting from alley realignment
  - Maintaining alley access during construction

CHEVAL BLANC HOTEL

TRAFFIC VOLUME COUNTS

ONE-WAY (SOUTHBOUND) ALLEY BETWEEN RODEO DRIVE AND BEVERLY DRIVE
SOUTH SANTA MONICA BOULEVARD ENTRANCE

ALLEY ACCESS VEHICLE COUNT SUMMARIES

CHEVAL BLANC HOTEL PROJECT
SUMMARY OF CURRENT WEEKDAY ALLEY TRAFFIC ACTIVITY
ONE-WAY SOUTHBOUND ALLEY BETWEEN SANTA MONICA BOULEVARD (S) AND BRIGHTON WAY

DAY/DATE	EASTBOUND RIGHT-TURN ENTRY						WESTBOUND LEFT-TURN ENTRY						TOTAL ALLEY VOLUMES					
	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
Tuesday, April 23, 2019																		
Daily	483	30	1	0	2	516	208	13	3	0	2	226	691	43	4	0	4	742
AM Peak Hour (8:45 - 9:45 AM)	61	1	0	0	0	62	45	2	2	0	0	49	106	3	2	0	0	111
Mid-Day Peak Hour (12:00 N - 1:00 PM)	37	4	0	0	0	41	17	0	0	0	0	17	54	4	0	0	0	58
PM Peak Hour (3:30 - 4:30 PM)	36	8	0	0	1	45	10	1	0	0	0	11	46	9	0	0	1	56
Monday, May 13, 2019																		
Daily	369	39	0	0	1	409	164	23	3	0	0	190	533	62	3	0	1	599
AM Peak Hour (8:45 - 9:45 AM)	57	3	0	0	1	61	41	4	0	0	0	45	98	7	0	0	1	106
Mid-Day Peak Hour (12:00 N - 1:00 PM)	25	8	0	0	0	33	9	3	0	0	0	12	34	11	0	0	0	45
PM Peak Hour (3:30 - 4:30 PM)	24	4	0	0	0	28	8	1	0	0	0	9	32	5	0	0	0	37
Tuesday, May 14, 2019																		
Daily	440	44	0	0	4	488	226	19	2	0	1	248	666	63	2	0	5	736
AM Peak Hour (8:45 - 9:45 AM)	65	5	0	0	2	72	50	0	0	0	1	51	115	5	0	0	3	123
Mid-Day Peak Hour (1:00 - 2:00 PM)	35	7	0	0	0	42	17	1	0	0	0	18	52	8	0	0	0	60
PM Peak Hour (4:00 - 5:00 PM)	30	0	0	0	0	30	16	0	0	0	0	16	46	0	0	0	0	46
Monday, May 20, 2019																		
Daily	380	35	0	0	2	417	187	16	3	0	2	208	567	51	3	0	4	625
AM Peak Hour (8:45 - 9:45 AM)	53	7	0	0	1	61	36	1	0	0	0	37	89	8	0	0	1	98
Mid-Day Peak Hour (12:00 N - 1:00 PM)	29	5	0	0	0	34	14	3	0	0	0	17	43	8	0	0	0	51
PM Peak Hour (4:15 - 5:15 PM)	28	1	0	0	0	29	8	1	0	0	0	9	36	2	0	0	0	38
Tuesday, May 21, 2019																		
Daily	505	40	1	0	0	546	225	27	3	0	0	255	730	67	4	0	0	801
AM Peak Hour (8:45 - 9:45 AM)	51	4	1	0	0	56	53	3	0	0	0	56	104	7	1	0	0	112
Mid-Day Peak Hour (12:45 - 1:45 PM)	27	5	0	0	0	32	18	3	0	0	0	21	45	8	0	0	0	53
PM Peak Hour (3:00 - 4:00 PM)	30	4	0	0	0	34	12	2	0	0	0	14	42	6	0	0	0	48
Wednesday, May 22, 2019																		
Daily	435	49	1	1	1	487	211	23	2	0	0	236	646	72	3	1	1	723
AM Peak Hour (8:45 - 9:45 AM)	53	5	0	0	0	58	50	1	0	0	0	51	103	6	0	0	0	109
Mid-Day Peak Hour (1:00 - 2:00 PM)	36	2	0	0	1	39	18	2	0	0	0	20	54	4	0	0	1	59
PM Peak Hour (3:15 - 4:15 PM)	23	5	0	0	0	28	9	1	0	0	0	10	32	6	0	0	0	38
Thursday, May 23, 2019																		
Daily	485	38	0	0	0	523	230	24	2	0	0	256	715	62	2	0	0	779
AM Peak Hour (8:30 - 9:30 AM)	61	3	0	0	0	64	39	1	0	0	0	40	100	4	0	0	0	104
Mid-Day Peak Hour (12:45 - 1:45 PM)	46	3	0	0	0	49	20	1	0	0	0	21	66	4	0	0	0	70
PM Peak Hour (3:00 - 4:00 PM)	35	3	0	0	0	38	11	3	0	0	0	14	46	6	0	0	0	52
Friday, May 24, 2019																		
Daily	462	30	0	0	2	494	219	15	2	0	3	239	681	45	2	0	5	733
AM Peak Hour (8:45 - 9:45 AM)	56	4	0	0	1	61	50	1	0	0	1	52	106	5	0	0	2	113
Mid-Day Peak Hour (12:15 - 1:15 PM)	53	4	0	0	0	57	18	0	0	0	0	18	71	4	0	0	0	75
PM Peak Hour (3:00 - 4:00 PM)	39	3	0	0	0	42	20	1	0	0	0	21	59	4	0	0	0	63
Weekday Average (8 Days)																		
Daily	445	38	0	0	2	485	209	20	3	0	1	233	654	58	3	0	3	718
AM Peak Hour	57	4	0	0	1	62	46	2	0	0	0	48	103	6	0	0	1	110
Mid-Day Peak Hour	36	5	0	0	0	41	16	2	0	0	0	18	52	7	0	0	0	59
PM Peak Hour	31	4	0	0	0	35	12	1	0	0	0	13	43	5	0	0	0	48
Maximums (by category)																		
Daily	505	49	1	1	4		230	27	3	0	3		730	72	4	1	5	
AM Peak Hour	65	7	1	0	2		53	4	2	0	1		115	8	2	0	3	
Mid-Day Peak Hour	53	8	0	0	1		20	3	0	0	0		71	11	0	0	1	
PM Peak Hour	39	8	0	0	1		20	3	0	0	0		59	9	0	0	1	

CHEVAL BLANC HOTEL PROJECT

SUMMARY OF CURRENT SATURDAY ALLEY TRAFFIC ACTIVITY

ONE-WAY SOUTHBOUND ALLEY BETWEEN SANTA MONICA BOULEVARD (S) AND BRIGHTON WAY

DAY/DATE	EASTBOUND RIGHT-TURN ENTRY						WESTBOUND LEFT-TURN ENTRY						TOTAL ALLEY VOLUMES					
	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
Saturday, May 11, 2019																		
Daily	384	11	**1**	**1**	0	397	**201**	**10**	**2**	0	0	213	585	21	3	1	0	610
AM Peak Hour (8:45 - 9:45 AM)	49	0	0	0	0	49	**50**	**1**	0	0	0	51	99	1	0	0	0	100
Mid-Day Peak Hour (12:00 N - 1:00 PM)	**42**	1	0	0	0	43	14	**1**	0	0	0	15	56	2	0	0	0	58
PM Peak Hour (3:00 - 4:00 PM)	**43**	**2**	0	0	0	45	**13**	**1**	0	0	0	14	56	3	0	0	0	59
Saturday, May 18, 2019																		
Daily	**387**	**16**	**1**	0	0	404	166	8	**2**	0	0	176	553	24	3	0	0	580
AM Peak Hour (8:45 - 9:45 AM)	**63**	**2**	0	0	0	65	29	**1**	0	0	0	30	92	3	0	0	0	95
Mid-Day Peak Hour (12:00 N - 1:00 PM)	41	**2**	0	0	0	43	**17**	0	0	0	0	17	58	2	0	0	0	60
PM Peak Hour (3:00 - 4:00 PM)	30	**2**	0	0	0	32	**13**	0	0	0	0	13	43	2	0	0	0	45
Saturday Average (2 Days)																		
Daily	386	14	1	1	0	402	184	9	2	0	0	195	570	23	3	1	0	597
AM Peak Hour	56	1	0	0	0	57	40	1	0	0	0	41	96	2	0	0	0	98
Mid-Day Peak Hour	42	2	0	0	0	44	16	1	0	0	0	17	58	3	0	0	0	61
PM Peak Hour	37	2	0	0	0	39	13	1	0	0	0	14	50	3	0	0	0	53
Maximums (by category)																		
Daily	387	16	1	1	0		201	10	2	0	0		585	24	3	1	0	
AM Peak Hour	63	2	0	0	0		50	1	0	0	0		99	3	0	0	0	
Mid-Day Peak Hour	42	2	0	0	0		17	1	0	0	0		58	2	0	0	0	
PM Peak Hour	43	2	0	0	0		13	1	0	0	0		56	3	0	0	0	

CHEVAL BLANC HOTEL PROJECT
SUMMARY OF CURRENT SUNDAY ALLEY TRAFFIC ACTIVITY
ONE-WAY SOUTHBOUND ALLEY BETWEEN SANTA MONICA BOULEVARD (S) AND BRIGHTON WAY

DAY/DATE	EASTBOUND RIGHT-TURN ENTRY						WESTBOUND LEFT-TURN ENTRY						TOTAL ALLEY VOLUMES					
	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
Sunday, May 12, 2019																		
Daily	179	1	0	0	0	180	**91**	1	0	0	0	92	270	2	0	0	0	272
AM Peak Hour (8:00 - 9:00 AM)	8	0	0	0	0	8	3	0	0	0	0	3	11	0	0	0	0	11
Mid-Day Peak Hour (12:00 N - 1:00 PM)	16	**1**	0	0	0	17	**7**	0	0	0	0	7	23	1	0	0	0	24
PM Peak Hour (3:45 - 4:45 PM)	26	**0**	0	0	0	26	10	0	0	0	0	10	36	0	0	0	0	36
Sunday, May 19, 2019																		
Daily	**201**	**4**	0	0	0	205	76	**2**	0	0	0	78	277	6	0	0	0	283
AM Peak Hour (8:30 - 9:30 AM)	**10**	0	0	0	0	10	**5**	**1**	0	0	0	6	15	1	0	0	0	16
Mid-Day Peak Hour (12:15 - 1:15 PM)	**18**	0	0	0	0	18	6	0	0	0	0	6	24	0	0	0	0	24
PM Peak Hour (3:15 - 4:15 PM)	**27**	**0**	0	0	0	27	**11**	0	0	0	0	11	38	0	0	0	0	38
Sunday Average (2 Days)																		
Daily	190	3	0	0	0	193	84	2	0	0	0	86	274	5	0	0	0	279
AM Peak Hour	9	0	0	0	0	9	4	1	0	0	0	5	13	1	0	0	0	14
Mid-Day Peak Hour	17	1	0	0	0	18	7	0	0	0	0	7	24	1	0	0	0	25
PM Peak Hour	27	0	0	0	0	27	11	0	0	0	0	11	38	0	0	0	0	38
Maximums (by category)																		
Daily	201	4	0	0	0		91	2	0	0	0		277	6	0	0	0	
AM Peak Hour	10	0	0	0	0		5	1	0	0	0		15	1	0	0	0	
Mid-Day Peak Hour	18	1	0	0	0		7	0	0	0	0		24	1	0	0	0	
PM Peak Hour	27	0	0	0	0		11	0	0	0	0		38	0	0	0	0	

INDIVIDUAL ALLEY ACCESS VEHICLE COUNT DATA SHEETS

WEEKDAY COUNTS

Tuesday April 23, 2019

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: TUESDAY, APRIL 23, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
4:30 AM	2	0	0	0	0	2	2	0	1	0	0	3	4	0	1	0	0	5
4:45 AM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
5:00 AM	3	0	0	0	0	3	1	0	0	0	0	1	4	0	0	0	0	4
5:15 AM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
5:30 AM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
5:45 AM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
6:00 AM	2	0	0	0	0	2	2	0	0	0	0	2	4	0	0	0	0	4
6:15 AM	3	0	1	0	0	4	1	0	0	0	0	1	4	0	1	0	0	5
6:30 AM	6	0	0	0	0	6	2	0	0	0	0	2	8	0	0	0	0	8
6:45 AM	6	0	0	0	0	6	1	0	0	0	0	1	7	0	0	0	0	7
7:00 AM	4	0	0	0	0	4	2	0	0	0	0	2	6	0	0	0	0	6
7:15 AM	6	0	0	0	0	6	4	0	0	0	0	4	10	0	0	0	0	10
7:30 AM	4	0	0	0	0	4	3	0	0	0	0	3	7	0	0	0	0	7
7:45 AM	6	0	0	0	0	6	7	0	0	0	0	7	13	0	0	0	0	13
8:00 AM	7	0	0	0	0	7	2	0	0	0	0	2	9	0	0	0	0	9
8:15 AM	7	0	0	0	0	7	3	0	0	0	0	3	10	0	0	0	0	10
8:30 AM	8	0	0	0	0	8	5	0	0	0	0	5	13	0	0	0	0	13
8:45 AM	13	1	0	0	0	14	10	1	1	0	0	12	23	2	1	0	0	26
9:00 AM	22	0	0	0	0	22	7	0	0	0	0	7	29	0	0	0	0	29
9:15 AM	14	0	0	0	0	14	17	1	0	0	0	18	31	1	0	0	0	32
9:30 AM	12	0	0	0	0	12	11	0	1	0	0	12	23	0	1	0	0	24
9:45 AM	13	1	0	0	0	14	6	0	0	0	0	6	19	1	0	0	0	20
10:00 AM	15	0	0	0	0	15	4	2	0	0	0	6	19	2	0	0	0	21
10:15 AM	9	1	0	0	0	10	8	0	0	0	0	8	17	1	0	0	0	18
10:30 AM	12	1	0	0	0	13	5	0	0	0	0	5	17	1	0	0	0	18
10:45 AM	12	2	0	0	0	14	2	0	0	0	0	2	14	2	0	0	0	16
11:00 AM	10	2	0	0	0	12	1	0	0	0	0	1	11	2	0	0	0	13
11:15 AM	11	0	0	0	0	11	4	1	0	0	0	5	15	1	0	0	0	16
11:30 AM	5	1	0	0	1	7	0	1	0	0	0	1	5	2	0	0	1	8
11:45 AM	7	0	0	0	0	7	3	0	0	0	0	3	10	0	0	0	0	10
12:00 PM	9	1	0	0	0	10	6	0	0	0	0	6	15	1	0	0	0	16
12:15 PM	9	1	0	0	0	10	7	0	0	0	0	7	16	1	0	0	0	17
12:30 PM	11	2	0	0	0	13	2	0	0	0	0	2	13	2	0	0	0	15
12:45 PM	8	0	0	0	0	8	2	0	0	0	0	2	10	0	0	0	0	10
1:00 PM	6	0	0	0	0	6	2	0	0	0	0	2	8	0	0	0	0	8
1:15 PM	12	2	0	0	0	14	3	2	0	0	0	5	15	4	0	0	0	19
1:30 PM	12	0	0	0	0	12	3	0	0	0	0	3	15	0	0	0	0	15
1:45 PM	8	0	0	0	0	8	3	0	0	0	0	3	11	0	0	0	0	11

DATA PROVIDED BY:

NATIONAL DATA AND SURVEYING SERVICES
1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: TUESDAY, APRIL 23, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
2:00 PM	9	1	0	0	0	10	3	0	0	0	1	4	12	1	0	0	1	14
2:15 PM	5	2	0	0	0	7	4	0	0	0	0	4	9	2	0	0	0	11
2:30 PM	5	0	0	0	0	5	2	1	0	0	0	3	7	1	0	0	0	8
2:45 PM	6	0	0	0	0	6	4	0	0	0	1	5	10	0	0	0	1	11
3:00 PM	13	1	0	0	0	14	1	0	0	0	0	1	14	1	0	0	0	15
3:15 PM	8	1	0	0	0	9	1	0	0	0	0	1	9	1	0	0	0	10
3:30 PM	11	5	0	0	0	16	1	0	0	0	0	1	12	5	0	0	0	17
3:45 PM	7	1	0	0	0	8	3	0	0	0	0	3	10	1	0	0	0	11
4:00 PM	10	2	0	0	0	12	2	1	0	0	0	3	12	3	0	0	0	15
4:15 PM	8	0	0	0	1	9	4	0	0	0	0	4	12	0	0	0	1	13
4:30 PM	6	0	0	0	0	6	3	0	0	0	0	3	9	0	0	0	0	9
4:45 PM	7	0	0	0	0	7	4	0	0	0	0	4	11	0	0	0	0	11
5:00 PM	8	0	0	0	0	8	3	0	0	0	0	3	11	0	0	0	0	11
5:15 PM	10	0	0	0	0	10	5	0	0	0	0	5	15	0	0	0	0	15
5:30 PM	8	0	0	0	0	8	1	0	0	0	0	1	9	0	0	0	0	9
5:45 PM	7	1	0	0	0	8	2	0	0	0	0	2	9	1	0	0	0	10
6:00 PM	7	0	0	0	0	7	2	0	0	0	0	2	9	0	0	0	0	9
6:15 PM	9	0	0	0	0	9	1	0	0	0	0	1	10	0	0	0	0	10
6:30 PM	7	0	0	0	0	7	4	0	0	0	0	4	11	0	0	0	0	11
6:45 PM	6	0	0	0	0	6	2	1	0	0	0	3	8	1	0	0	0	9
7:00 PM	5	0	0	0	0	5	3	0	0	0	0	3	8	0	0	0	0	8
7:15 PM	5	0	0	0	0	5	0	0	0	0	0	0	5	0	0	0	0	5
7:30 PM	3	0	0	0	0	3	1	0	0	0	0	1	4	0	0	0	0	4
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
8:15 PM	1	1	0	0	0	2	1	0	0	0	0	1	2	1	0	0	0	3
8:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
8:45 PM	1	0	0	0	0	1	2	0	0	0	0	2	3	0	0	0	0	3
9:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
9:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
10:00 PM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
10:45 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1
11:00 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
11:15 PM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
TOTALS	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
AM	144	2	1	0	0	147	92	3	3	0	0	98	236	5	4	0	0	245
MIDDAY	156	13	0	0	1	170	55	6	0	0	0	61	211	19	0	0	1	231
PM	183	15	0	0	1	199	61	4	0	0	2	67	244	19	0	0	3	266
DAILY	483	30	1	0	2	516	208	13	3	0	2	226	691	43	4	0	4	742

DATA PROVIDED BY:

NATIONAL DATA AND SURVEYING SERVICES
1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

Monday May 13, 2019

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: MONDAY, MAY 13, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1
12:45 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
2:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
2:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	1	0	0	0	0	1	3	0	0	0	0	3	4	0	0	0	0	4
3:15 AM	0	0	0	0	0	0	1	1	0	0	0	2	1	1	0	0	0	2
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	1	0	0	0	0	1	0	1	0	0	0	1	1	1	0	0	0	2
4:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	1
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	2	0	0	0	0	2	2	0	0	0	0	2	4	0	0	0	0	4
5:00 AM	5	0	0	0	0	5	1	0	0	0	0	1	6	0	0	0	0	6
5:15 AM	2	0	0	0	0	2	2	0	0	0	0	2	4	0	0	0	0	4
5:30 AM	1	0	0	0	0	1	0	0	1	0	0	1	1	0	1	0	0	2
5:45 AM	3	0	0	0	0	3	2	0	0	0	0	2	5	0	0	0	0	5
6:00 AM	2	0	0	0	0	2	1	1	0	0	0	2	3	1	0	0	0	4
6:15 AM	1	0	0	0	0	1	2	0	0	0	0	2	3	0	0	0	0	3
6:30 AM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
6:45 AM	2	1	0	0	0	3	1	1	1	0	0	3	3	2	1	0	0	6
7:00 AM	7	0	0	0	0	7	0	0	0	0	0	0	7	0	0	0	0	7
7:15 AM	4	0	0	0	0	4	2	0	0	0	0	2	6	0	0	0	0	6
7:30 AM	4	0	0	0	0	4	4	0	0	0	0	4	8	0	0	0	0	8
7:45 AM	7	0	0	0	0	7	5	0	0	0	0	5	12	0	0	0	0	12
8:00 AM	6	0	0	0	0	6	2	0	0	0	0	2	8	0	0	0	0	8
8:15 AM	7	2	0	0	0	9	1	0	0	0	0	1	8	2	0	0	0	10
8:30 AM	7	0	0	0	0	7	7	0	0	0	0	7	14	0	0	0	0	14
8:45 AM	18	0	0	0	1	19	8	0	0	0	0	8	26	0	0	0	1	27
9:00 AM	12	1	0	0	0	13	16	0	0	0	0	16	28	1	0	0	0	29
9:15 AM	19	2	0	0	0	21	12	2	0	0	0	14	31	4	0	0	0	35
9:30 AM	8	0	0	0	0	8	5	2	0	0	0	7	13	2	0	0	0	15
9:45 AM	6	1	0	0	0	7	9	1	0	0	0	10	15	2	0	0	0	17
10:00 AM	6	1	0	0	0	7	0	1	0	0	0	1	6	2	0	0	0	8
10:15 AM	11	2	0	0	0	13	8	1	0	0	0	9	19	3	0	0	0	22
10:30 AM	3	4	0	0	0	7	3	0	0	0	0	3	6	4	0	0	0	10
10:45 AM	17	1	0	0	0	18	1	0	0	0	0	1	18	1	0	0	0	19
11:00 AM	5	0	0	0	0	5	2	0	0	0	0	2	7	0	0	0	0	7
11:15 AM	6	0	0	0	0	6	1	0	0	0	0	1	7	0	0	0	0	7
11:30 AM	11	1	0	0	0	12	5	1	0	0	0	6	16	2	0	0	0	18
11:45 AM	9	0	0	0	0	9	0	1	0	0	0	1	9	1	0	0	0	10
12:00 PM	7	1	0	0	0	8	5	0	0	0	0	5	12	1	0	0	0	13
12:15 PM	8	5	0	0	0	13	2	0	0	0	0	2	10	5	0	0	0	15
12:30 PM	6	2	0	0	0	8	1	1	0	0	0	2	7	3	0	0	0	10
12:45 PM	4	0	0	0	0	4	1	2	0	0	0	3	5	2	0	0	0	7
1:00 PM	6	0	0	0	0	6	3	1	0	0	0	4	9	1	0	0	0	10
1:15 PM	2	0	0	0	0	2	2	0	0	0	0	2	4	0	0	0	0	4
1:30 PM	9	1	0	0	0	10	2	0	0	0	0	2	11	1	0	0	0	12
1:45 PM	3	1	0	0	0	4	4	0	0	0	0	4	7	1	0	0	0	8

DATA PROVIDED BY:

NATIONAL DATA AND SURVEYING SERVICES
1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: MONDAY, MAY 13, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
2:00 PM	8	1	0	0	0	9	3	0	0	0	0	3	11	1	0	0	0	12
2:15 PM	7	4	0	0	0	11	3	1	0	0	0	4	10	5	0	0	0	15
2:30 PM	10	1	0	0	0	11	4	1	0	0	0	5	14	2	0	0	0	16
2:45 PM	6	1	0	0	0	7	1	0	0	0	0	1	7	1	0	0	0	8
3:00 PM	6	0	0	0	0	6	0	1	0	0	0	1	6	1	0	0	0	7
3:15 PM	7	0	0	0	0	7	0	0	0	0	0	0	7	0	0	0	0	7
3:30 PM	9	1	0	0	0	10	4	1	0	0	0	5	13	2	0	0	0	15
3:45 PM	2	2	0	0	0	4	0	0	0	0	0	0	2	2	0	0	0	4
4:00 PM	6	0	0	0	0	6	1	0	0	0	0	1	7	0	0	0	0	7
4:15 PM	7	1	0	0	0	8	3	0	0	0	0	3	10	1	0	0	0	11
4:30 PM	7	1	0	0	0	8	1	0	0	0	0	1	8	1	0	0	0	9
4:45 PM	3	0	0	0	0	3	2	0	0	0	0	2	5	0	0	0	0	5
5:00 PM	4	0	0	0	0	4	3	0	0	0	0	3	7	0	0	0	0	7
5:15 PM	3	0	0	0	0	3	1	0	0	0	0	1	4	0	0	0	0	4
5:30 PM	6	0	0	0	0	6	1	0	0	0	0	1	7	0	0	0	0	7
5:45 PM	10	0	0	0	0	10	3	0	0	0	0	3	13	0	0	0	0	13
6:00 PM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
6:15 PM	3	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	3
6:30 PM	3	1	0	0	0	4	3	0	0	0	0	3	6	1	0	0	0	7
6:45 PM	3	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	3
7:00 PM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
7:15 PM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
7:30 PM	3	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	3
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
10:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
10:45 PM	2	0	0	0	0	2	0	1	0	0	0	1	2	1	0	0	0	3
11:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
TOTALS	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
AM	130	7	0	0	1	138	88	10	3	0	0	101	218	17	3	0	1	239
MIDDAY	113	19	0	0	0	132	40	8	0	0	0	48	153	27	0	0	0	180
PM	126	13	0	0	0	139	36	5	0	0	0	41	162	18	0	0	0	180
DAILY	369	39	0	0	1	409	164	23	3	0	0	190	533	62	3	0	1	599

DATA PROVIDED BY:

NATIONAL DATA AND SURVEYING SERVICES
1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

Tuesday May 14, 2019

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: TUESDAY, MAY 14, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
12:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
12:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
1:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
2:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
2:45 AM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
3:00 AM	1	1	0	0	0	2	0	0	0	0	0	0	1	1	0	0	0	2
3:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
3:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1
3:45 AM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
4:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
4:15 AM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
4:30 AM	1	0	0	0	0	1	0	0	1	0	0	1	1	0	1	0	0	2
4:45 AM	4	0	0	0	0	4	1	0	0	0	0	1	5	0	0	0	0	5
5:00 AM	3	0	0	0	1	4	4	0	0	0	0	4	7	0	0	0	1	8
5:15 AM	3	1	0	0	0	4	0	0	0	0	0	0	3	1	0	0	0	4
5:30 AM	4	0	0	0	0	4	0	0	0	0	0	0	4	0	0	0	0	4
5:45 AM	2	0	0	0	0	2	2	0	0	0	0	2	4	0	0	0	0	4
6:00 AM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
6:15 AM	2	0	0	0	0	2	0	1	0	0	0	1	2	1	0	0	0	3
6:30 AM	4	0	0	0	0	4	0	0	0	0	0	0	4	0	0	0	0	4
6:45 AM	2	0	0	0	0	2	4	0	0	0	0	4	6	0	0	0	0	6
7:00 AM	4	0	0	0	0	4	2	0	0	0	0	2	6	0	0	0	0	6
7:15 AM	4	0	0	0	0	4	2	0	1	0	0	3	6	0	1	0	0	7
7:30 AM	10	0	0	0	0	10	8	0	0	0	0	8	18	0	0	0	0	18
7:45 AM	1	1	0	0	0	2	8	1	0	0	0	9	9	2	0	0	0	11
8:00 AM	5	1	0	0	0	6	4	1	0	0	0	5	9	2	0	0	0	11
8:15 AM	9	1	0	0	0	10	6	0	0	0	0	6	15	1	0	0	0	16
8:30 AM	12	0	0	0	0	12	5	0	0	0	0	5	17	0	0	0	0	17
8:45 AM	18	1	0	0	1	20	10	0	0	0	1	11	28	1	0	0	2	31
9:00 AM	22	2	0	0	0	24	18	0	0	0	0	18	40	2	0	0	0	42
9:15 AM	14	2	0	0	1	17	13	0	0	0	0	13	27	2	0	0	1	30
9:30 AM	11	0	0	0	0	11	9	0	0	0	0	9	20	0	0	0	0	20
9:45 AM	12	2	0	0	1	15	8	1	0	0	0	9	20	3	0	0	1	24
10:00 AM	8	1	0	0	0	9	10	1	0	0	0	11	18	2	0	0	0	20
10:15 AM	14	1	0	0	0	15	3	0	0	0	0	3	17	1	0	0	0	18
10:30 AM	4	1	0	0	0	5	4	1	0	0	0	5	8	2	0	0	0	10
10:45 AM	7	1	0	0	0	8	4	0	0	0	0	4	11	1	0	0	0	12
11:00 AM	10	0	0	0	0	10	5	0	0	0	0	5	15	0	0	0	0	15
11:15 AM	9	2	0	0	0	11	2	2	0	0	0	4	11	4	0	0	0	15
11:30 AM	9	2	0	0	0	11	2	0	0	0	0	2	11	2	0	0	0	13
11:45 AM	6	1	0	0	0	7	7	2	0	0	0	9	13	3	0	0	0	16
12:00 PM	5	1	0	0	0	6	5	0	0	0	0	5	10	1	0	0	0	11
12:15 PM	11	0	0	0	0	11	0	0	0	0	0	0	11	0	0	0	0	11
12:30 PM	7	2	0	0	0	9	3	0	0	0	0	3	10	2	0	0	0	12
12:45 PM	6	0	0	0	0	6	5	0	0	0	0	5	11	0	0	0	0	11
1:00 PM	10	0	0	0	0	10	2	1	0	0	0	3	12	1	0	0	0	13
1:15 PM	10	2	0	0	0	12	3	0	0	0	0	3	13	2	0	0	0	15
1:30 PM	8	3	0	0	0	11	8	0	0	0	0	8	16	3	0	0	0	19
1:45 PM	7	2	0	0	0	9	4	0	0	0	0	4	11	2	0	0	0	13

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NATIONAL DATA AND SURVEYING SERVICES
1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: TUESDAY, MAY 14, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
2:00 PM	6	3	0	0	0	9	3	1	0	0	0	4	9	4	0	0	0	13
2:15 PM	11	3	0	0	0	14	3	2	0	0	0	5	14	5	0	0	0	19
2:30 PM	7	0	0	0	0	7	6	1	0	0	0	7	13	1	0	0	0	14
2:45 PM	7	0	0	0	0	7	3	0	0	0	0	3	10	0	0	0	0	10
3:00 PM	5	1	0	0	0	6	5	0	0	0	0	5	10	1	0	0	0	11
3:15 PM	7	1	0	0	0	8	4	1	0	0	0	5	11	2	0	0	0	13
3:30 PM	2	1	0	0	0	3	3	0	0	0	0	3	5	1	0	0	0	6
3:45 PM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
4:00 PM	8	0	0	0	0	8	5	0	0	0	0	5	13	0	0	0	0	13
4:15 PM	9	0	0	0	0	9	2	0	0	0	0	2	11	0	0	0	0	11
4:30 PM	9	0	0	0	0	9	7	0	0	0	0	7	16	0	0	0	0	16
4:45 PM	4	0	0	0	0	4	2	0	0	0	0	2	6	0	0	0	0	6
5:00 PM	7	0	0	0	0	7	1	0	0	0	0	1	8	0	0	0	0	8
5:15 PM	7	2	0	0	0	9	0	0	0	0	0	0	7	2	0	0	0	9
5:30 PM	6	1	0	0	0	7	0	0	0	0	0	0	6	1	0	0	0	7
5:45 PM	9	0	0	0	0	9	1	0	0	0	0	1	10	0	0	0	0	10
6:00 PM	5	0	0	0	0	5	1	0	0	0	0	1	6	0	0	0	0	6
6:15 PM	5	1	0	0	0	6	1	0	0	0	0	1	6	1	0	0	0	7
6:30 PM	3	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	3
6:45 PM	4	0	0	0	0	4	0	0	0	0	0	0	4	0	0	0	0	4
7:00 PM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
7:15 PM	5	0	0	0	0	5	0	0	0	0	0	0	5	0	0	0	0	5
7:30 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	3	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	3
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
10:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
10:45 PM	1	0	0	0	0	1	0	1	0	0	0	1	1	1	0	0	0	2
11:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
11:15 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
11:30 PM	2	0	0	0	0	2	0	1	0	0	0	1	2	1	0	0	0	3
11:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1

	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
TOTALS	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
AM	161	12	0	0	4	177	109	5	2	0	1	117	270	17	2	0	5	294
MIDDAY	131	19	0	0	0	150	67	7	0	0	0	74	198	26	0	0	0	224
PM	148	13	0	0	0	161	50	7	0	0	0	57	198	20	0	0	0	218
DAILY	440	44	0	0	4	488	226	19	2	0	1	248	666	63	2	0	5	736

DATA PROVIDED BY:

NATIONAL DATA AND SURVEYING SERVICES
1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

Monday May 20, 2019

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: MONDAY, MAY 20, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
2:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
2:30 AM	4	0	0	0	0	4	2	0	0	0	0	2	6	0	0	0	0	6
2:45 AM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
3:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	6	0	0	0	0	6	0	0	0	0	0	0	6	0	0	0	0	6
4:30 AM	2	0	0	0	0	2	2	0	0	0	0	2	4	0	0	0	0	4
4:45 AM	5	0	0	0	0	5	0	0	1	0	0	1	5	0	1	0	0	6
5:00 AM	4	0	0	0	0	4	1	1	0	0	0	2	5	1	0	0	0	6
5:15 AM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
6:00 AM	5	1	0	0	0	6	2	1	0	0	0	3	7	2	0	0	0	9
6:15 AM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
6:30 AM	0	1	0	0	0	1	1	0	2	0	0	3	1	1	2	0	0	4
6:45 AM	5	0	0	0	0	5	1	0	0	0	0	1	6	0	0	0	0	6
7:00 AM	3	0	0	0	0	3	1	0	0	0	0	1	4	0	0	0	0	4
7:15 AM	5	0	0	0	0	5	0	0	0	0	0	0	5	0	0	0	0	5
7:30 AM	3	0	0	0	0	3	5	0	0	0	0	5	8	0	0	0	0	8
7:45 AM	9	0	0	0	0	9	5	0	0	0	0	5	14	0	0	0	0	14
8:00 AM	8	0	0	0	0	8	5	0	0	0	0	5	13	0	0	0	0	13
8:15 AM	7	2	0	0	0	9	5	0	0	0	0	5	12	2	0	0	0	14
8:30 AM	4	0	0	0	0	4	6	0	0	0	0	6	10	0	0	0	0	10
8:45 AM	13	1	0	0	1	15	12	0	0	0	0	12	25	1	0	0	1	27
9:00 AM	13	3	0	0	0	16	5	0	0	0	0	5	18	3	0	0	0	21
9:15 AM	16	3	0	0	0	19	12	1	0	0	0	13	28	4	0	0	0	32
9:30 AM	11	0	0	0	0	11	7	0	0	0	0	7	18	0	0	0	0	18
9:45 AM	10	0	0	0	0	10	5	0	0	0	0	5	15	0	0	0	0	15
10:00 AM	9	0	0	0	0	9	3	1	0	0	0	4	12	1	0	0	0	13
10:15 AM	9	1	0	0	0	10	9	1	0	0	0	10	18	2	0	0	0	20
10:30 AM	3	3	0	0	0	6	5	0	0	0	0	5	8	3	0	0	0	11
10:45 AM	6	0	0	0	0	6	2	0	0	0	0	2	8	0	0	0	0	8
11:00 AM	5	2	0	0	0	7	1	0	0	0	0	1	6	2	0	0	0	8
11:15 AM	6	0	0	0	0	6	3	0	0	0	0	3	9	0	0	0	0	9
11:30 AM	6	1	0	0	0	7	1	0	0	0	0	1	7	1	0	0	0	8
11:45 AM	17	0	0	0	0	17	3	1	0	0	0	4	20	1	0	0	0	21
12:00 PM	9	2	0	0	0	11	5	1	0	0	0	6	14	3	0	0	0	17
12:15 PM	5	1	0	0	0	6	3	2	0	0	0	5	8	3	0	0	0	11
12:30 PM	10	2	0	0	0	12	3	0	0	0	0	3	13	2	0	0	0	15
12:45 PM	5	0	0	0	0	5	3	0	0	0	0	3	8	0	0	0	0	8
1:00 PM	4	0	0	0	0	4	7	0	0	0	1	8	11	0	0	0	1	12
1:15 PM	4	0	0	0	0	4	3	0	0	0	0	3	7	0	0	0	0	7
1:30 PM	7	0	0	0	0	7	4	1	0	0	1	6	11	1	0	0	1	13
1:45 PM	9	3	0	0	0	12	2	0	0	0	0	2	11	3	0	0	0	14

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1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: MONDAY, MAY 20, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
2:00 PM	11	0	0	0	0	11	5	0	0	0	0	5	16	0	0	0	0	16
2:15 PM	10	0	0	0	0	10	1	1	0	0	0	2	11	1	0	0	0	12
2:30 PM	6	1	0	0	0	7	3	1	0	0	0	4	9	2	0	0	0	11
2:45 PM	5	1	0	0	0	6	3	0	0	0	0	3	8	1	0	0	0	9
3:00 PM	4	0	0	0	1	5	1	1	0	0	0	2	5	1	0	0	1	7
3:15 PM	2	2	0	0	0	4	1	0	0	0	0	1	3	2	0	0	0	5
3:30 PM	3	0	0	0	0	3	2	1	0	0	0	3	5	1	0	0	0	6
3:45 PM	2	0	0	0	0	2	2	0	0	0	0	2	4	0	0	0	0	4
4:00 PM	4	2	0	0	0	6	2	0	0	0	0	2	6	2	0	0	0	8
4:15 PM	9	0	0	0	0	9	2	0	0	0	0	2	11	0	0	0	0	11
4:30 PM	8	0	0	0	0	8	3	1	0	0	0	4	11	1	0	0	0	12
4:45 PM	4	1	0	0	0	5	1	0	0	0	0	1	5	1	0	0	0	6
5:00 PM	7	0	0	0	0	7	2	0	0	0	0	2	9	0	0	0	0	9
5:15 PM	4	0	0	0	0	4	3	0	0	0	0	3	7	0	0	0	0	7
5:30 PM	11	1	0	0	0	12	1	0	0	0	0	1	12	1	0	0	0	13
5:45 PM	5	0	0	0	0	5	2	0	0	0	0	2	7	0	0	0	0	7
6:00 PM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
6:15 PM	3	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	3
6:30 PM	5	0	0	0	0	5	3	0	0	0	0	3	8	0	0	0	0	8
6:45 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
7:00 PM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
7:15 PM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
7:30 PM	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	3
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
8:15 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
9:00 PM	1	0	0	0	0	1	2	0	0	0	0	2	3	0	0	0	0	3
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
9:45 PM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
10:00 PM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	3	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	3
10:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
11:00 PM	4	0	0	0	0	4	0	0	0	0	0	0	4	0	0	0	0	4
11:15 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	2

	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
TOTALS	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
AM	143	12	0	0	1	156	80	4	3	0	0	87	223	16	3	0	1	243
MIDDAY	114	15	0	0	0	129	57	7	0	0	2	66	171	22	0	0	2	195
PM	123	8	0	0	1	132	50	5	0	0	0	55	173	13	0	0	1	187
DAILY	380	35	0	0	2	417	187	16	3	0	2	208	567	51	3	0	4	625

DATA PROVIDED BY:

NATIONAL DATA AND SURVEYING SERVICES
1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

Tuesday May 21, 2019

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: TUESDAY, MAY 21, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
2:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
2:15 AM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
2:30 AM	6	0	0	0	0	6	1	0	0	0	0	1	7	0	0	0	0	7
2:45 AM	3	0	0	0	0	3	1	0	0	0	0	1	4	0	0	0	0	4
3:00 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
4:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
4:30 AM	2	0	0	0	0	2	0	0	1	0	0	1	2	0	1	0	0	3
4:45 AM	10	1	0	0	0	11	1	0	0	0	0	1	11	1	0	0	0	12
5:00 AM	5	0	0	0	0	5	1	0	0	0	0	1	6	0	0	0	0	6
5:15 AM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
5:30 AM	6	0	0	0	0	6	1	2	0	0	0	3	7	2	0	0	0	9
5:45 AM	3	0	0	0	0	3	0	2	0	0	0	2	3	2	0	0	0	5
6:00 AM	6	0	0	0	0	6	2	1	0	0	0	3	8	1	0	0	0	9
6:15 AM	2	1	0	0	0	3	0	0	0	0	0	0	2	1	0	0	0	3
6:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
6:45 AM	6	1	0	0	0	7	2	0	0	0	0	2	8	1	0	0	0	9
7:00 AM	4	0	0	0	0	4	2	1	0	0	0	3	6	1	0	0	0	7
7:15 AM	6	1	0	0	0	7	2	0	1	0	0	3	8	1	1	0	0	10
7:30 AM	5	0	0	0	0	5	11	0	0	0	0	11	16	0	0	0	0	16
7:45 AM	8	1	0	0	0	9	9	1	0	0	0	10	17	2	0	0	0	19
8:00 AM	6	0	0	0	0	6	4	0	0	0	0	4	10	0	0	0	0	10
8:15 AM	9	1	0	0	0	10	3	0	0	0	0	3	12	1	0	0	0	13
8:30 AM	12	0	0	0	0	12	3	0	1	0	0	4	15	0	1	0	0	16
8:45 AM	14	0	1	0	0	15	12	1	0	0	0	13	26	1	1	0	0	28
9:00 AM	16	2	0	0	0	18	10	0	0	0	0	10	26	2	0	0	0	28
9:15 AM	10	0	0	0	0	10	20	2	0	0	0	22	30	2	0	0	0	32
9:30 AM	11	2	0	0	0	13	11	0	0	0	0	11	22	2	0	0	0	24
9:45 AM	16	2	0	0	0	18	6	0	0	0	0	6	22	2	0	0	0	24
10:00 AM	12	1	0	0	0	13	4	1	0	0	0	5	16	2	0	0	0	18
10:15 AM	14	1	0	0	0	15	9	0	0	0	0	9	23	1	0	0	0	24
10:30 AM	7	0	0	0	0	7	3	0	0	0	0	3	10	0	0	0	0	10
10:45 AM	11	3	0	0	0	14	7	0	0	0	0	7	18	3	0	0	0	21
11:00 AM	9	1	0	0	0	10	5	1	0	0	0	6	14	2	0	0	0	16
11:15 AM	10	2	0	0	0	12	2	0	0	0	0	2	12	2	0	0	0	14
11:30 AM	7	0	0	0	0	7	3	1	0	0	0	4	10	1	0	0	0	11
11:45 AM	17	0	0	0	0	17	2	1	0	0	0	3	19	1	0	0	0	20
12:00 PM	11	2	0	0	0	13	1	0	0	0	0	1	12	2	0	0	0	14
12:15 PM	8	3	0	0	0	11	3	1	0	0	0	4	11	4	0	0	0	15
12:30 PM	6	0	0	0	0	6	4	0	0	0	0	4	10	0	0	0	0	10
12:45 PM	7	0	0	0	0	7	4	0	0	0	0	4	11	0	0	0	0	11
1:00 PM	5	2	0	0	0	7	2	2	0	0	0	4	7	4	0	0	0	11
1:15 PM	5	2	0	0	0	7	9	0	0	0	0	9	14	2	0	0	0	16
1:30 PM	10	1	0	0	0	11	3	1	0	0	0	4	13	2	0	0	0	15
1:45 PM	3	1	0	0	0	4	4	1	0	0	0	5	7	2	0	0	0	9

DATA PROVIDED BY:

NATIONAL DATA AND SURVEYING SERVICES
1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: TUESDAY, MAY 21, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
2:00 PM	11	0	0	0	0	11	3	0	0	0	0	3	14	0	0	0	0	14
2:15 PM	16	1	0	0	0	17	1	1	0	0	0	2	17	2	0	0	0	19
2:30 PM	7	0	0	0	0	7	2	0	0	0	0	2	9	0	0	0	0	9
2:45 PM	10	1	0	0	0	11	7	0	0	0	0	7	17	1	0	0	0	18
3:00 PM	7	1	0	0	0	8	1	0	0	0	0	1	8	1	0	0	0	9
3:15 PM	9	1	0	0	0	10	2	0	0	0	0	2	11	1	0	0	0	12
3:30 PM	6	0	0	0	0	6	4	2	0	0	0	6	10	2	0	0	0	12
3:45 PM	8	2	0	0	0	10	5	0	0	0	0	5	13	2	0	0	0	15
4:00 PM	7	0	0	0	0	7	1	0	0	0	0	1	8	0	0	0	0	8
4:15 PM	9	0	0	0	0	9	1	1	0	0	0	2	10	1	0	0	0	11
4:30 PM	9	1	0	0	0	10	2	0	0	0	0	2	11	1	0	0	0	12
4:45 PM	6	0	0	0	0	6	5	1	0	0	0	6	11	1	0	0	0	12
5:00 PM	8	0	0	0	0	8	1	0	0	0	0	1	9	0	0	0	0	9
5:15 PM	8	0	0	0	0	8	3	0	0	0	0	3	11	0	0	0	0	11
5:30 PM	6	0	0	0	0	6	2	0	0	0	0	2	8	0	0	0	0	8
5:45 PM	8	0	0	0	0	8	3	0	0	0	0	3	11	0	0	0	0	11
6:00 PM	2	1	0	0	0	3	1	0	0	0	0	1	3	1	0	0	0	4
6:15 PM	5	0	0	0	0	5	3	0	0	0	0	3	8	0	0	0	0	8
6:30 PM	10	0	0	0	0	10	3	0	0	0	0	3	13	0	0	0	0	13
6:45 PM	13	0	0	0	0	13	1	0	0	0	0	1	14	0	0	0	0	14
7:00 PM	3	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	3
7:15 PM	1	0	0	0	0	1	2	0	0	0	0	2	3	0	0	0	0	3
7:30 PM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	3	0	0	0	0	3	1	0	0	0	0	1	4	0	0	0	0	4
8:15 PM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
8:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
9:30 PM	3	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	3
9:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
10:00 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
10:15 PM	3	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	3
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
11:15 PM	3	0	0	0	0	3	0	1	0	0	0	1	3	1	0	0	0	4
11:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
11:45 PM	1	1	0	0	0	2	0	0	0	0	0	0	1	1	0	0	0	2

	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
TOTALS	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
AM	172	12	1	0	0	185	104	12	3	0	0	119	276	24	4	0	0	304
MIDDAY	142	19	0	0	0	161	65	9	0	0	0	74	207	28	0	0	0	235
PM	191	9	0	0	0	200	56	6	0	0	0	62	247	15	0	0	0	262
DAILY	505	40	1	0	0	546	225	27	3	0	0	255	730	67	4	0	0	801

DATA PROVIDED BY:

NATIONAL DATA AND SURVEYING SERVICES
1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

Wednesday May 22, 2019

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: WEDNESDAY, MAY 22, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
2:00 AM	3	0	0	0	0	3	1	0	0	0	0	1	4	0	0	0	0	4
2:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
2:30 AM	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	2
2:45 AM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	1	0	0	1	0	2	0	0	0	0	0	0	1	0	0	1	0	2
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	3	0	0	0	0	3	0	0	1	0	0	1	3	0	1	0	0	4
4:30 AM	3	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	3
4:45 AM	6	0	0	0	0	6	0	0	0	0	0	0	6	0	0	0	0	6
5:00 AM	4	0	0	0	0	4	2	0	0	0	0	2	6	0	0	0	0	6
5:15 AM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
5:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
5:45 AM	3	0	0	0	0	3	1	0	0	0	0	1	4	0	0	0	0	4
6:00 AM	6	2	0	0	0	8	0	2	0	0	0	2	6	4	0	0	0	10
6:15 AM	3	1	0	0	0	4	0	0	1	0	0	1	3	1	1	0	0	5
6:30 AM	2	1	1	0	0	4	0	0	0	0	0	0	2	1	1	0	0	4
6:45 AM	1	0	0	0	0	1	2	0	0	0	0	2	3	0	0	0	0	3
7:00 AM	4	0	0	0	0	4	2	0	0	0	0	2	6	0	0	0	0	6
7:15 AM	2	1	0	0	0	3	0	1	0	0	0	1	2	2	0	0	0	4
7:30 AM	2	1	0	0	0	3	7	1	0	0	0	8	9	2	0	0	0	11
7:45 AM	8	0	0	0	0	8	8	0	0	0	0	8	16	0	0	0	0	16
8:00 AM	4	0	0	0	0	4	4	0	0	0	0	4	8	0	0	0	0	8
8:15 AM	16	1	0	0	0	17	4	0	0	0	0	4	20	1	0	0	0	21
8:30 AM	6	0	0	0	0	6	3	0	0	0	0	3	9	0	0	0	0	9
8:45 AM	14	1	0	0	0	15	10	1	0	0	0	11	24	2	0	0	0	26
9:00 AM	19	1	0	0	0	20	14	0	0	0	0	14	33	1	0	0	0	34
9:15 AM	11	1	0	0	0	12	14	0	0	0	0	14	25	1	0	0	0	26
9:30 AM	9	2	0	0	0	11	12	0	0	0	0	12	21	2	0	0	0	23
9:45 AM	10	2	0	0	0	12	6	0	0	0	0	6	16	2	0	0	0	18
10:00 AM	13	2	0	0	0	15	2	2	0	0	0	4	15	4	0	0	0	19
10:15 AM	15	1	0	0	0	16	6	3	0	0	0	9	21	4	0	0	0	25
10:30 AM	15	0	0	0	0	15	1	0	0	0	0	1	16	0	0	0	0	16
10:45 AM	5	3	0	0	0	8	2	0	0	0	0	2	7	3	0	0	0	10
11:00 AM	9	1	0	0	0	10	3	0	0	0	0	3	12	1	0	0	0	13
11:15 AM	16	0	0	0	0	16	5	1	0	0	0	6	21	1	0	0	0	22
11:30 AM	14	0	0	0	0	14	5	2	0	0	0	7	19	2	0	0	0	21
11:45 AM	8	1	0	0	0	9	6	0	0	0	0	6	14	1	0	0	0	15
12:00 PM	13	4	0	0	0	17	2	1	0	0	0	3	15	5	0	0	0	20
12:15 PM	2	0	0	0	0	2	2	0	0	0	0	2	4	0	0	0	0	4
12:30 PM	5	0	0	0	0	5	4	1	0	0	0	5	9	1	0	0	0	10
12:45 PM	6	1	0	0	0	7	5	0	0	0	0	5	11	1	0	0	0	12
1:00 PM	12	1	0	0	1	14	4	0	0	0	0	4	16	1	0	0	1	18
1:15 PM	7	1	0	0	0	8	3	0	0	0	0	3	10	1	0	0	0	11
1:30 PM	10	0	0	0	0	10	7	0	0	0	0	7	17	0	0	0	0	17
1:45 PM	7	0	0	0	0	7	4	2	0	0	0	6	11	2	0	0	0	13

DATA PROVIDED BY:

NATIONAL DATA AND SURVEYING SERVICES
1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: WEDNESDAY, MAY 22, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
2:00 PM	4	4	0	0	0	8	2	0	0	0	0	2	6	4	0	0	0	10
2:15 PM	4	0	0	0	0	4	3	0	0	0	0	3	7	0	0	0	0	7
2:30 PM	12	1	0	0	0	13	4	1	0	0	0	5	16	2	0	0	0	18
2:45 PM	8	0	0	0	0	8	8	0	0	0	0	8	16	0	0	0	0	16
3:00 PM	3	1	0	0	0	4	3	0	0	0	0	3	6	1	0	0	0	7
3:15 PM	4	1	0	0	0	5	2	1	0	0	0	3	6	2	0	0	0	8
3:30 PM	5	1	0	0	0	6	3	0	0	0	0	3	8	1	0	0	0	9
3:45 PM	7	1	0	0	0	8	3	0	0	0	0	3	10	1	0	0	0	11
4:00 PM	7	2	0	0	0	9	1	0	0	0	0	1	8	2	0	0	0	10
4:15 PM	2	0	0	0	0	2	2	0	0	0	0	2	4	0	0	0	0	4
4:30 PM	3	2	0	0	0	5	1	1	0	0	0	2	4	3	0	0	0	7
4:45 PM	6	2	0	0	0	8	3	0	0	0	0	3	9	2	0	0	0	11
5:00 PM	5	0	0	0	0	5	1	0	0	0	0	1	6	0	0	0	0	6
5:15 PM	2	0	0	0	0	2	2	0	0	0	0	2	4	0	0	0	0	4
5:30 PM	3	0	0	0	0	3	2	0	0	0	0	2	5	0	0	0	0	5
5:45 PM	7	0	0	0	0	7	0	0	0	0	0	0	7	0	0	0	0	7
6:00 PM	5	1	0	0	0	6	1	0	0	0	0	1	6	1	0	0	0	7
6:15 PM	5	0	0	0	0	5	1	0	0	0	0	1	6	0	0	0	0	6
6:30 PM	9	0	0	0	0	9	1	0	0	0	0	1	10	0	0	0	0	10
6:45 PM	8	0	0	0	0	8	2	0	0	0	0	2	10	0	0	0	0	10
7:00 PM	2	0	0	0	0	2	2	0	0	0	0	2	4	0	0	0	0	4
7:15 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
7:30 PM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
7:45 PM	2	0	0	0	0	2	2	0	0	0	0	2	4	0	0	0	0	4
8:00 PM	2	2	0	0	0	4	0	0	0	0	0	0	2	2	0	0	0	4
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	1	0	0	0	1	1	0	0	0	0	1	1	1	0	0	0	2
8:45 PM	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	2
9:00 PM	1	0	0	0	0	1	0	1	0	0	0	1	1	1	0	0	0	2
9:15 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
9:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
9:45 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
10:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
10:15 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
10:30 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
10:45 PM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
11:00 PM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
11:15 PM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
11:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
11:45 PM	0	0	0	0	0	0	1	1	0	0	0	2	1	1	0	0	0	2

	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
TOTALS	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
AM	145	15	1	1	0	162	93	6	2	0	0	101	238	21	3	1	0	263
MIDDAY	157	15	0	0	1	173	61	12	0	0	0	73	218	27	0	0	1	246
PM	133	19	0	0	0	152	57	5	0	0	0	62	190	24	0	0	0	214
DAILY	435	49	1	1	1	487	211	23	2	0	0	236	646	72	3	1	1	723

DATA PROVIDED BY:

NATIONAL DATA AND SURVEYING SERVICES
1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

Thursday May 23, 2019

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: THURSDAY, MAY 23, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
12:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1
12:45 AM	2	1	0	0	0	3	0	0	0	0	0	0	2	1	0	0	0	3
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	1	0	0	0	1	1	0	0	0	0	1	1	1	0	0	0	2
2:15 AM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
2:30 AM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
2:45 AM	1	0	0	0	0	1	2	0	0	0	0	2	3	0	0	0	0	3
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
3:30 AM	1	0	0	0	0	1	0	1	0	0	0	1	1	1	0	0	0	2
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
4:15 AM	6	0	0	0	0	6	0	0	0	0	0	0	6	0	0	0	0	6
4:30 AM	1	0	0	0	0	1	0	0	1	0	0	1	1	0	1	0	0	2
4:45 AM	5	0	0	0	0	5	0	0	0	0	0	0	5	0	0	0	0	5
5:00 AM	2	0	0	0	0	2	1	1	0	0	0	2	3	1	0	0	0	4
5:15 AM	1	0	0	0	0	1	1	1	0	0	0	2	2	1	0	0	0	3
5:30 AM	4	0	0	0	0	4	1	0	0	0	0	1	5	0	0	0	0	5
5:45 AM	2	1	0	0	0	3	2	0	0	0	0	2	4	1	0	0	0	5
6:00 AM	1	0	0	0	0	1	0	1	0	0	0	1	1	1	0	0	0	2
6:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
6:30 AM	4	0	0	0	0	4	2	0	0	0	0	2	6	0	0	0	0	6
6:45 AM	1	0	0	0	0	1	1	0	1	0	0	2	2	0	1	0	0	3
7:00 AM	7	0	0	0	0	7	1	0	0	0	0	1	8	0	0	0	0	8
7:15 AM	4	0	0	0	0	4	1	1	0	0	0	2	5	1	0	0	0	6
7:30 AM	3	0	0	0	0	3	9	0	0	0	0	9	12	0	0	0	0	12
7:45 AM	5	0	0	0	0	5	6	1	0	0	0	7	11	1	0	0	0	12
8:00 AM	6	0	0	0	0	6	4	0	0	0	0	4	10	0	0	0	0	10
8:15 AM	9	1	0	0	0	10	5	0	0	0	0	5	14	1	0	0	0	15
8:30 AM	15	0	0	0	0	15	4	0	0	0	0	4	19	0	0	0	0	19
8:45 AM	18	2	0	0	0	20	7	0	0	0	0	7	25	2	0	0	0	27
9:00 AM	17	0	0	0	0	17	13	0	0	0	0	13	30	0	0	0	0	30
9:15 AM	11	1	0	0	0	12	15	1	0	0	0	16	26	2	0	0	0	28
9:30 AM	10	0	0	0	0	10	8	0	0	0	0	8	18	0	0	0	0	18
9:45 AM	6	1	0	0	0	7	6	0	0	0	0	6	12	1	0	0	0	13
10:00 AM	11	2	0	0	0	13	6	2	0	0	0	8	17	4	0	0	0	21
10:15 AM	10	1	0	0	0	11	9	1	0	0	0	10	19	2	0	0	0	21
10:30 AM	10	3	0	0	0	13	6	0	0	0	0	6	16	3	0	0	0	19
10:45 AM	14	0	0	0	0	14	7	0	0	0	0	7	21	0	0	0	0	21
11:00 AM	11	1	0	0	0	12	5	3	0	0	0	8	16	4	0	0	0	20
11:15 AM	13	2	0	0	0	15	3	1	0	0	0	4	16	3	0	0	0	19
11:30 AM	12	0	0	0	0	12	7	1	0	0	0	8	19	1	0	0	0	20
11:45 AM	9	2	0	0	0	11	8	1	0	0	0	9	17	3	0	0	0	20
12:00 PM	16	2	0	0	0	18	2	0	0	0	0	2	18	2	0	0	0	20
12:15 PM	4	0	0	0	0	4	5	1	0	0	0	6	9	1	0	0	0	10
12:30 PM	7	2	0	0	0	9	2	0	0	0	0	2	9	2	0	0	0	11
12:45 PM	8	0	0	0	0	8	7	1	0	0	0	8	15	1	0	0	0	16
1:00 PM	12	1	0	0	0	13	2	0	0	0	0	2	14	1	0	0	0	15
1:15 PM	13	1	0	0	0	14	5	0	0	0	0	5	18	1	0	0	0	19
1:30 PM	13	1	0	0	0	14	6	0	0	0	0	6	19	1	0	0	0	20
1:45 PM	10	2	0	0	0	12	1	0	0	0	0	1	11	2	0	0	0	13

DATA PROVIDED BY:

NATIONAL DATA AND SURVEYING SERVICES
1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: THURSDAY, MAY 23, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
2:00 PM	13	0	0	0	0	13	4	0	0	0	0	4	17	0	0	0	0	17
2:15 PM	5	1	0	0	0	6	1	1	0	0	0	2	6	2	0	0	0	8
2:30 PM	6	0	0	0	0	6	1	0	0	0	0	1	7	0	0	0	0	7
2:45 PM	12	1	0	0	0	13	7	0	0	0	0	7	19	1	0	0	0	20
3:00 PM	8	1	0	0	0	9	3	1	0	0	0	4	11	2	0	0	0	13
3:15 PM	10	1	0	0	0	11	2	1	0	0	0	3	12	2	0	0	0	14
3:30 PM	11	1	0	0	0	12	3	1	0	0	0	4	14	2	0	0	0	16
3:45 PM	6	0	0	0	0	6	3	0	0	0	0	3	9	0	0	0	0	9
4:00 PM	9	0	0	0	0	9	1	0	0	0	0	1	10	0	0	0	0	10
4:15 PM	7	1	0	0	0	8	1	0	0	0	0	1	8	1	0	0	0	9
4:30 PM	6	0	0	0	0	6	1	0	0	0	0	1	7	0	0	0	0	7
4:45 PM	5	0	0	0	0	5	2	0	0	0	0	2	7	0	0	0	0	7
5:00 PM	7	0	0	0	0	7	3	0	0	0	0	3	10	0	0	0	0	10
5:15 PM	8	1	0	0	0	9	1	0	0	0	0	1	9	1	0	0	0	10
5:30 PM	4	0	0	0	0	4	3	0	0	0	0	3	7	0	0	0	0	7
5:45 PM	10	2	0	0	0	12	5	0	0	0	0	5	15	2	0	0	0	17
6:00 PM	3	0	0	0	0	3	2	0	0	0	0	2	5	0	0	0	0	5
6:15 PM	4	0	0	0	0	4	1	0	0	0	0	1	5	0	0	0	0	5
6:30 PM	4	0	0	0	0	4	2	0	0	0	0	2	6	0	0	0	0	6
6:45 PM	15	0	0	0	0	15	4	0	0	0	0	4	19	0	0	0	0	19
7:00 PM	3	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	3
7:15 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
7:30 PM	1	1	0	0	0	2	1	0	0	0	0	1	2	1	0	0	0	3
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	2
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	1	1	0	0	0	2	1	1	0	0	0	2
9:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	3	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	3
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1

	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
TOTALS	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
AM	148	8	0	0	0	156	93	8	2	0	0	103	241	16	2	0	0	259
MIDDAY	173	20	0	0	0	193	81	11	0	0	0	92	254	31	0	0	0	285
PM	164	10	0	0	0	174	56	5	0	0	0	61	220	15	0	0	0	235
DAILY	485	38	0	0	0	523	230	24	2	0	0	256	715	62	2	0	0	779

DATA PROVIDED BY:

NATIONAL DATA AND SURVEYING SERVICES
1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

Friday May 24, 2019

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: FRIDAY, MAY 24, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
12:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
12:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
1:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
2:15 AM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
2:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1
2:45 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
3:00 AM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
4:15 AM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
4:30 AM	1	0	0	0	0	1	0	0	1	0	0	1	1	0	1	0	0	2
4:45 AM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
5:00 AM	7	0	0	0	0	7	0	0	0	0	0	0	7	0	0	0	0	7
5:15 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1
5:30 AM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
5:45 AM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
6:00 AM	3	1	0	0	0	4	4	0	0	0	0	4	7	1	0	0	0	8
6:15 AM	0	0	0	0	0	0	5	0	1	0	0	6	5	0	1	0	0	6
6:30 AM	3	0	0	0	0	3	1	1	0	0	0	2	4	1	0	0	0	5
6:45 AM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
7:00 AM	3	0	0	0	0	3	2	0	0	0	0	2	5	0	0	0	0	5
7:15 AM	5	0	0	0	0	5	1	0	0	0	0	1	6	0	0	0	0	6
7:30 AM	6	0	0	0	0	6	5	0	0	0	0	5	11	0	0	0	0	11
7:45 AM	15	0	0	0	0	15	3	0	0	0	0	3	18	0	0	0	0	18
8:00 AM	6	0	0	0	0	6	4	1	0	0	0	5	10	1	0	0	0	11
8:15 AM	13	1	0	0	0	14	3	0	0	0	0	3	16	1	0	0	0	17
8:30 AM	9	0	0	0	1	10	6	0	0	0	0	6	15	0	0	0	1	16
8:45 AM	17	2	0	0	1	20	9	0	0	0	0	9	26	2	0	0	1	29
9:00 AM	17	0	0	0	0	17	19	0	0	0	1	20	36	0	0	0	1	37
9:15 AM	13	1	0	0	0	14	11	0	0	0	0	11	24	1	0	0	0	25
9:30 AM	9	1	0	0	0	10	11	1	0	0	0	12	20	2	0	0	0	22
9:45 AM	8	0	0	0	0	8	8	1	0	0	0	9	16	1	0	0	0	17
10:00 AM	12	0	0	0	0	12	3	0	0	0	0	3	15	0	0	0	0	15
10:15 AM	8	2	0	0	0	10	2	2	0	0	0	4	10	4	0	0	0	14
10:30 AM	9	2	0	0	0	11	6	0	0	0	0	6	15	2	0	0	0	17
10:45 AM	10	1	0	0	0	11	2	2	0	0	1	5	12	3	0	0	1	16
11:00 AM	9	1	0	0	0	10	2	0	0	0	0	2	11	1	0	0	0	12
11:15 AM	11	1	0	0	0	12	3	0	0	0	0	3	14	1	0	0	0	15
11:30 AM	9	0	0	0	0	9	8	0	0	0	0	8	17	0	0	0	0	17
11:45 AM	9	2	0	0	0	11	5	1	0	0	0	6	14	3	0	0	0	17
12:00 PM	9	1	0	0	0	10	1	2	0	0	0	3	10	3	0	0	0	13
12:15 PM	7	0	0	0	0	7	9	0	0	0	0	9	16	0	0	0	0	16
12:30 PM	14	1	0	0	0	15	3	0	0	0	0	3	17	1	0	0	0	18
12:45 PM	7	1	0	0	0	8	3	0	0	0	0	3	10	1	0	0	0	11
1:00 PM	25	2	0	0	0	27	3	0	0	0	0	3	28	2	0	0	0	30
1:15 PM	6	0	0	0	0	6	3	0	0	0	0	3	9	0	0	0	0	9
1:30 PM	16	0	0	0	0	16	5	0	0	0	0	5	21	0	0	0	0	21
1:45 PM	6	0	0	0	0	6	9	0	0	0	0	9	15	0	0	0	0	15

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1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: FRIDAY, MAY 24, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
2:00 PM	8	4	0	0	0	12	1	0	0	0	0	1	9	4	0	0	0	13
2:15 PM	9	0	0	0	0	9	1	0	0	0	0	1	10	0	0	0	0	10
2:30 PM	11	0	0	0	0	11	3	0	0	0	0	3	14	0	0	0	0	14
2:45 PM	5	0	0	0	0	5	3	0	0	0	0	3	8	0	0	0	0	8
3:00 PM	10	2	0	0	0	12	7	0	0	0	0	7	17	2	0	0	0	19
3:15 PM	10	0	0	0	0	10	3	0	0	0	0	3	13	0	0	0	0	13
3:30 PM	12	1	0	0	0	13	3	1	0	0	0	4	15	2	0	0	0	17
3:45 PM	7	0	0	0	0	7	7	0	0	0	0	7	14	0	0	0	0	14
4:00 PM	6	1	0	0	0	7	3	0	0	0	0	3	9	1	0	0	0	10
4:15 PM	6	0	0	0	0	6	0	0	0	0	0	0	6	0	0	0	0	6
4:30 PM	5	0	0	0	0	5	1	0	0	0	0	1	6	0	0	0	0	6
4:45 PM	4	0	0	0	0	4	3	0	0	0	1	4	7	0	0	0	1	8
5:00 PM	6	0	0	0	0	6	3	1	0	0	0	4	9	1	0	0	0	10
5:15 PM	5	1	0	0	0	6	1	0	0	0	0	1	6	1	0	0	0	7
5:30 PM	7	0	0	0	0	7	1	0	0	0	0	1	8	0	0	0	0	8
5:45 PM	8	0	0	0	0	8	1	0	0	0	0	1	9	0	0	0	0	9
6:00 PM	5	0	0	0	0	5	2	0	0	0	0	2	7	0	0	0	0	7
6:15 PM	6	0	0	0	0	6	1	0	0	0	0	1	7	0	0	0	0	7
6:30 PM	2	0	0	0	0	2	2	0	0	0	0	2	4	0	0	0	0	4
6:45 PM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
7:00 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
7:15 PM	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	2
7:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
7:45 PM	1	0	0	0	0	1	2	0	0	0	0	2	3	0	0	0	0	3
8:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
8:15 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	3	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	3
10:45 PM	3	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	3
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
TOTALS	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
AM	148	7	0	0	2	157	101	6	2	0	1	110	249	13	2	0	3	267
MIDDAY	167	14	0	0	0	181	67	7	0	0	1	75	234	21	0	0	1	256
PM	147	9	0	0	0	156	51	2	0	0	1	54	198	11	0	0	1	210
DAILY	462	30	0	0	2	494	219	15	2	0	3	239	681	45	2	0	5	733

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NATIONAL DATA AND SURVEYING SERVICES
1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

SATURDAY COUNTS

Saturday May 11, 2019

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: SATURDAY, MAY 11, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
4:30 AM	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	2
4:45 AM	4	0	0	0	0	4	0	0	0	0	0	0	4	0	0	0	0	4
5:00 AM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
5:15 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1
5:30 AM	2	1	0	0	0	3	0	0	1	0	0	1	2	1	1	0	0	4
5:45 AM	0	0	0	0	0	0	1	0	1	0	0	2	1	0	1	0	0	2
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
6:30 AM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
6:45 AM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
7:00 AM	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	2
7:15 AM	1	0	1	0	0	2	2	0	0	0	0	2	3	0	1	0	0	4
7:30 AM	5	0	0	0	0	5	3	0	0	0	0	3	8	0	0	0	0	8
7:45 AM	3	0	0	0	0	3	4	0	0	0	0	4	7	0	0	0	0	7
8:00 AM	5	0	0	0	0	5	1	1	0	0	0	2	6	1	0	0	0	7
8:15 AM	4	0	0	0	0	4	3	0	0	0	0	3	7	0	0	0	0	7
8:30 AM	6	0	0	0	0	6	6	0	0	0	0	6	12	0	0	0	0	12
8:45 AM	9	0	0	0	0	9	15	0	0	0	0	15	24	0	0	0	0	24
9:00 AM	19	0	0	0	0	19	11	0	0	0	0	11	30	0	0	0	0	30
9:15 AM	9	0	0	0	0	9	15	1	0	0	0	16	24	1	0	0	0	25
9:30 AM	12	0	0	0	0	12	9	0	0	0	0	9	21	0	0	0	0	21
9:45 AM	8	0	0	0	0	8	5	0	0	0	0	5	13	0	0	0	0	13
10:00 AM	7	0	0	0	0	7	3	0	0	0	0	3	10	0	0	0	0	10
10:15 AM	6	1	0	0	0	7	5	0	0	0	0	5	11	1	0	0	0	12
10:30 AM	2	3	0	0	0	5	8	0	0	0	0	8	10	3	0	0	0	13
10:45 AM	5	0	0	0	0	5	7	0	0	0	0	7	12	0	0	0	0	12
11:00 AM	6	1	0	0	0	7	2	0	0	0	0	2	8	1	0	0	0	9
11:15 AM	8	0	0	0	0	8	5	0	0	0	0	5	13	0	0	0	0	13
11:30 AM	11	0	0	1	0	12	5	0	0	0	0	5	16	0	0	1	0	17
11:45 AM	8	0	0	0	0	8	3	1	0	0	0	4	11	1	0	0	0	12
12:00 PM	14	0	0	0	0	14	4	0	0	0	0	4	18	0	0	0	0	18
12:15 PM	9	0	0	0	0	9	5	1	0	0	0	6	14	1	0	0	0	15
12:30 PM	14	1	0	0	0	15	3	0	0	0	0	3	17	1	0	0	0	18
12:45 PM	5	0	0	0	0	5	2	0	0	0	0	2	7	0	0	0	0	7
1:00 PM	9	0	0	0	0	9	2	0	0	0	0	2	11	0	0	0	0	11
1:15 PM	9	0	0	0	0	9	6	0	0	0	0	6	15	0	0	0	0	15
1:30 PM	6	0	0	0	0	6	2	0	0	0	0	2	8	0	0	0	0	8
1:45 PM	5	0	0	0	0	5	4	1	0	0	0	5	9	1	0	0	0	10

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1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
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INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: SATURDAY, MAY 11, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
2:00 PM	8	0	0	0	0	8	3	0	0	0	0	3	11	0	0	0	0	11
2:15 PM	5	0	0	0	0	5	3	0	0	0	0	3	8	0	0	0	0	8
2:30 PM	13	0	0	0	0	13	4	1	0	0	0	5	17	1	0	0	0	18
2:45 PM	12	0	0	0	0	12	2	0	0	0	0	2	14	0	0	0	0	14
3:00 PM	9	0	0	0	0	9	4	0	0	0	0	4	13	0	0	0	0	13
3:15 PM	7	1	0	0	0	8	2	1	0	0	0	3	9	2	0	0	0	11
3:30 PM	9	1	0	0	0	10	5	0	0	0	0	5	14	1	0	0	0	15
3:45 PM	18	0	0	0	0	18	2	0	0	0	0	2	20	0	0	0	0	20
4:00 PM	6	0	0	0	0	6	0	1	0	0	0	1	6	1	0	0	0	7
4:15 PM	5	0	0	0	0	5	3	0	0	0	0	3	8	0	0	0	0	8
4:30 PM	12	0	0	0	0	12	2	0	0	0	0	2	14	0	0	0	0	14
4:45 PM	12	0	0	0	0	12	0	0	0	0	0	0	12	0	0	0	0	12
5:00 PM	11	0	0	0	0	11	1	0	0	0	0	1	12	0	0	0	0	12
5:15 PM	9	0	0	0	0	9	5	0	0	0	0	5	14	0	0	0	0	14
5:30 PM	6	0	0	0	0	6	4	0	0	0	0	4	10	0	0	0	0	10
5:45 PM	3	0	0	0	0	3	4	0	0	0	0	4	7	0	0	0	0	7
6:00 PM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
6:15 PM	4	0	0	0	0	4	1	0	0	0	0	1	5	0	0	0	0	5
6:30 PM	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	2
6:45 PM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
7:00 PM	2	0	0	0	0	2	2	0	0	0	0	2	4	0	0	0	0	4
7:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 PM	3	0	0	0	0	3	1	0	0	0	0	1	4	0	0	0	0	4
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
8:15 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
8:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
8:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
9:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
11:15 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
11:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
11:45 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1

	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
TOTALS	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
AM	95	1	1	0	0	97	82	3	2	0	0	87	177	4	3	0	0	184
MIDDAY	124	6	0	1	0	131	66	3	0	0	0	69	190	9	0	1	0	200
PM	165	4	0	0	0	169	53	4	0	0	0	57	218	8	0	0	0	226
DAILY	384	11	1	1	0	397	201	10	2	0	0	213	585	21	3	1	0	610

DATA PROVIDED BY:

NATIONAL DATA AND SURVEYING SERVICES
1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

Saturday May 18, 2019

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: SATURDAY, MAY 18, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
12:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
2:30 AM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
2:45 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
3:45 AM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
4:30 AM	2	0	0	0	0	2	2	0	1	0	0	3	4	0	1	0	0	5
4:45 AM	4	0	0	0	0	4	0	1	0	0	0	1	4	1	0	0	0	5
5:00 AM	3	0	0	0	0	3	2	0	0	0	0	2	5	0	0	0	0	5
5:15 AM	3	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	3
5:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
5:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	1
6:00 AM	2	0	0	0	0	2	2	0	0	0	0	2	4	0	0	0	0	4
6:15 AM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
6:30 AM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
6:45 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
7:00 AM	1	0	0	0	0	1	1	1	0	0	0	2	2	1	0	0	0	3
7:15 AM	2	1	0	0	0	3	1	0	0	0	0	1	3	1	0	0	0	4
7:30 AM	4	0	0	0	0	4	0	0	0	0	0	0	4	0	0	0	0	4
7:45 AM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
8:00 AM	4	0	1	0	0	5	1	0	0	0	0	1	5	0	1	0	0	6
8:15 AM	7	0	0	0	0	7	1	0	0	0	0	1	8	0	0	0	0	8
8:30 AM	9	0	0	0	0	9	5	0	0	0	0	5	14	0	0	0	0	14
8:45 AM	12	1	0	0	0	13	12	0	0	0	0	12	24	1	0	0	0	25
9:00 AM	19	0	0	0	0	19	8	0	0	0	0	8	27	0	0	0	0	27
9:15 AM	18	1	0	0	0	19	3	0	0	0	0	3	21	1	0	0	0	22
9:30 AM	14	0	0	0	0	14	6	1	0	0	0	7	20	1	0	0	0	21
9:45 AM	3	0	0	0	0	3	2	0	0	0	0	2	5	0	0	0	0	5
10:00 AM	7	0	0	0	0	7	5	0	0	0	0	5	12	0	0	0	0	12
10:15 AM	9	2	0	0	0	11	3	0	0	0	0	3	12	2	0	0	0	14
10:30 AM	7	0	0	0	0	7	5	0	0	0	0	5	12	0	0	0	0	12
10:45 AM	10	1	0	0	0	11	4	0	0	0	0	4	14	1	0	0	0	15
11:00 AM	9	0	0	0	0	9	3	0	0	0	0	3	12	0	0	0	0	12
11:15 AM	8	0	0	0	0	8	2	0	0	0	0	2	10	0	0	0	0	10
11:30 AM	10	0	0	0	0	10	2	0	0	0	0	2	12	0	0	0	0	12
11:45 AM	5	2	0	0	0	7	2	0	0	0	0	2	7	2	0	0	0	9
12:00 PM	8	0	0	0	0	8	3	0	0	0	0	3	11	0	0	0	0	11
12:15 PM	14	0	0	0	0	14	2	0	0	0	0	2	16	0	0	0	0	16
12:30 PM	6	0	0	0	0	6	4	0	0	0	0	4	10	0	0	0	0	10
12:45 PM	13	2	0	0	0	15	8	0	0	0	0	8	21	2	0	0	0	23
1:00 PM	5	0	0	0	0	5	5	0	0	0	0	5	10	0	0	0	0	10
1:15 PM	5	1	0	0	0	6	2	0	0	0	0	2	7	1	0	0	0	8
1:30 PM	8	0	0	0	0	8	10	0	0	0	0	10	18	0	0	0	0	18
1:45 PM	10	1	0	0	0	11	6	0	0	0	0	6	16	1	0	0	0	17

DATA PROVIDED BY:

NATIONAL DATA AND SURVEYING SERVICES
1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: SATURDAY, MAY 18, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
2:00 PM	11	0	0	0	0	11	6	0	0	0	0	6	17	0	0	0	0	17
2:15 PM	13	0	0	0	0	13	2	1	0	0	0	3	15	1	0	0	0	16
2:30 PM	7	0	0	0	0	7	3	1	0	0	0	4	10	1	0	0	0	11
2:45 PM	7	0	0	0	0	7	6	0	0	0	0	6	13	0	0	0	0	13
3:00 PM	11	1	0	0	0	12	5	0	0	0	0	5	16	1	0	0	0	17
3:15 PM	8	0	0	0	0	8	2	0	0	0	0	2	10	0	0	0	0	10
3:30 PM	6	1	0	0	0	7	3	0	0	0	0	3	9	1	0	0	0	10
3:45 PM	5	0	0	0	0	5	3	0	0	0	0	3	8	0	0	0	0	8
4:00 PM	5	0	0	0	0	5	1	0	0	0	0	1	6	0	0	0	0	6
4:15 PM	8	0	0	0	0	8	3	0	0	0	0	3	11	0	0	0	0	11
4:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
4:45 PM	6	1	0	0	0	7	2	0	0	0	0	2	8	1	0	0	0	9
5:00 PM	5	0	0	0	0	5	0	0	0	0	0	0	5	0	0	0	0	5
5:15 PM	3	0	0	0	0	3	3	0	0	0	0	3	6	0	0	0	0	6
5:30 PM	6	0	0	0	0	6	1	0	0	0	0	1	7	0	0	0	0	7
5:45 PM	7	0	0	0	0	7	1	0	0	0	0	1	8	0	0	0	0	8
6:00 PM	6	0	0	0	0	6	2	0	0	0	0	2	8	0	0	0	0	8
6:15 PM	4	1	0	0	0	5	1	0	0	0	0	1	5	1	0	0	0	6
6:30 PM	3	0	0	0	0	3	1	0	0	0	0	1	4	0	0	0	0	4
6:45 PM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
7:30 PM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
8:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
8:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	2	0	0	0	0	2	0	1	0	0	0	1	2	1	0	0	0	3
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	2	0	0	0	0	2	0	1	0	0	0	1	2	1	0	0	0	3
10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1

	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
TOTALS	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
AM	120	3	1	0	0	124	51	4	2	0	0	57	171	7	3	0	0	181
MIDDAY	134	9	0	0	0	143	66	0	0	0	0	66	200	9	0	0	0	209
PM	133	4	0	0	0	137	49	4	0	0	0	53	182	8	0	0	0	190
DAILY	387	16	1	0	0	404	166	8	2	0	0	176	553	24	3	0	0	580

DATA PROVIDED BY:

NATIONAL DATA AND SURVEYING SERVICES
1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

SUNDAY COUNTS

Sunday May 12, 2019

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: SUNDAY, MAY 12, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 AM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
5:45 AM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
6:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
6:45 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
7:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
8:15 AM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
8:30 AM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
8:45 AM	3	0	0	0	0	3	2	0	0	0	0	2	5	0	0	0	0	5
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	1	0	0	0	0	1	2	0	0	0	0	2	3	0	0	0	0	3
9:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
9:45 AM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
10:00 AM	3	0	0	0	0	3	2	0	0	0	0	2	5	0	0	0	0	5
10:15 AM	3	0	0	0	0	3	1	0	0	0	0	1	4	0	0	0	0	4
10:30 AM	5	0	0	0	0	5	2	0	0	0	0	2	7	0	0	0	0	7
10:45 AM	3	0	0	0	0	3	9	0	0	0	0	9	12	0	0	0	0	12
11:00 AM	3	0	0	0	0	3	5	0	0	0	0	5	8	0	0	0	0	8
11:15 AM	4	0	0	0	0	4	9	0	0	0	0	9	13	0	0	0	0	13
11:30 AM	7	0	0	0	0	7	4	0	0	0	0	4	11	0	0	0	0	11
11:45 AM	7	0	0	0	0	7	3	0	0	0	0	3	10	0	0	0	0	10
12:00 PM	4	1	0	0	0	5	2	0	0	0	0	2	6	1	0	0	0	7
12:15 PM	4	0	0	0	0	4	2	0	0	0	0	2	6	0	0	0	0	6
12:30 PM	5	0	0	0	0	5	1	0	0	0	0	1	6	0	0	0	0	6
12:45 PM	3	0	0	0	0	3	2	0	0	0	0	2	5	0	0	0	0	5
1:00 PM	5	0	0	0	0	5	1	0	0	0	0	1	6	0	0	0	0	6
1:15 PM	3	0	0	0	0	3	1	0	0	0	0	1	4	0	0	0	0	4
1:30 PM	2	0	0	0	0	2	2	0	0	0	0	2	4	0	0	0	0	4
1:45 PM	2	0	0	0	0	2	2	0	0	0	0	2	4	0	0	0	0	4

DATA PROVIDED BY:

NATIONAL DATA AND SURVEYING SERVICES
1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: SUNDAY, MAY 12, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
2:00 PM	5	0	0	0	0	5	2	0	0	0	0	2	7	0	0	0	0	7
2:15 PM	11	0	0	0	0	11	3	0	0	0	0	3	14	0	0	0	0	14
2:30 PM	8	0	0	0	0	8	3	0	0	0	0	3	11	0	0	0	0	11
2:45 PM	5	0	0	0	0	5	2	0	0	0	0	2	7	0	0	0	0	7
3:00 PM	2	0	0	0	0	2	2	0	0	0	0	2	4	0	0	0	0	4
3:15 PM	5	0	0	0	0	5	0	0	0	0	0	0	5	0	0	0	0	5
3:30 PM	5	0	0	0	0	5	1	0	0	0	0	1	6	0	0	0	0	6
3:45 PM	6	0	0	0	0	6	2	0	0	0	0	2	8	0	0	0	0	8
4:00 PM	9	0	0	0	0	9	4	0	0	0	0	4	13	0	0	0	0	13
4:15 PM	6	0	0	0	0	6	1	0	0	0	0	1	7	0	0	0	0	7
4:30 PM	5	0	0	0	0	5	3	0	0	0	0	3	8	0	0	0	0	8
4:45 PM	5	0	0	0	0	5	1	0	0	0	0	1	6	0	0	0	0	6
5:00 PM	3	0	0	0	0	3	1	0	0	0	0	1	4	0	0	0	0	4
5:15 PM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
5:30 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
5:45 PM	4	0	0	0	0	4	3	0	0	0	0	3	7	0	0	0	0	7
6:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
6:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
7:30 PM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
7:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
8:15 PM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
9:30 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
9:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 PM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
11:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
TOTALS	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
AM	18	0	0	0	0	18	9	1	0	0	0	10	27	1	0	0	0	28
MIDDAY	63	1	0	0	0	64	48	0	0	0	0	48	111	1	0	0	0	112
PM	98	0	0	0	0	98	34	0	0	0	0	34	132	0	0	0	0	132
DAILY	179	1	0	0	0	180	91	1	0	0	0	92	270	2	0	0	0	272

DATA PROVIDED BY:

NATIONAL DATA AND SURVEYING SERVICES
1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

Sunday May 19, 2019

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: SUNDAY, MAY 19, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
12:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
12:15 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 AM	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	2
4:45 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
5:00 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
7:30 AM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
8:30 AM	4	0	0	0	0	4	1	0	0	0	0	1	5	0	0	0	0	5
8:45 AM	3	0	0	0	0	3	2	0	0	0	0	2	5	0	0	0	0	5
9:00 AM	2	0	0	0	0	2	0	1	0	0	0	1	2	1	0	0	0	3
9:15 AM	1	0	0	0	0	1	2	0	0	0	0	2	3	0	0	0	0	3
9:30 AM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
9:45 AM	4	0	0	0	0	4	2	0	0	0	0	2	6	0	0	0	0	6
10:00 AM	1	0	0	0	0	1	5	0	0	0	0	5	6	0	0	0	0	6
10:15 AM	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	1
10:30 AM	6	0	0	0	0	6	2	0	0	0	0	2	8	0	0	0	0	8
10:45 AM	7	0	0	0	0	7	3	0	0	0	0	3	10	0	0	0	0	10
11:00 AM	5	0	0	0	0	5	5	0	0	0	0	5	10	0	0	0	0	10
11:15 AM	9	0	0	0	0	9	4	0	0	0	0	4	13	0	0	0	0	13
11:30 AM	4	0	0	0	0	4	2	0	0	0	0	2	6	0	0	0	0	6
11:45 AM	9	0	0	0	0	9	4	0	0	0	0	4	13	0	0	0	0	13
12:00 PM	4	0	0	0	0	4	0	0	0	0	0	0	4	0	0	0	0	4
12:15 PM	3	0	0	0	0	3	2	0	0	0	0	2	5	0	0	0	0	5
12:30 PM	7	0	0	0	0	7	3	0	0	0	0	3	10	0	0	0	0	10
12:45 PM	4	0	0	0	0	4	0	0	0	0	0	0	4	0	0	0	0	4
1:00 PM	4	0	0	0	0	4	1	0	0	0	0	1	5	0	0	0	0	5
1:15 PM	3	0	0	0	0	3	1	0	0	0	0	1	4	0	0	0	0	4
1:30 PM	1	0	0	0	0	1	3	0	0	0	0	3	4	0	0	0	0	4
1:45 PM	5	0	0	0	0	5	2	0	0	0	0	2	7	0	0	0	0	7

DATA PROVIDED BY:

NATIONAL DATA AND SURVEYING SERVICES
1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: HIRSCH/GREEN TRANSPORTATION CONSULTING, INC.
PROJECT: CHEVAL BLANC HOTEL - BEVERLY HILLS
DATE: SUNDAY, MAY 19, 2019
PERIOD: 24-HOUR
INTERSECTION: **N/S** ALLEY (ONE-WAY SB)
E/W SANTA MONICA BOULEVARD (S)

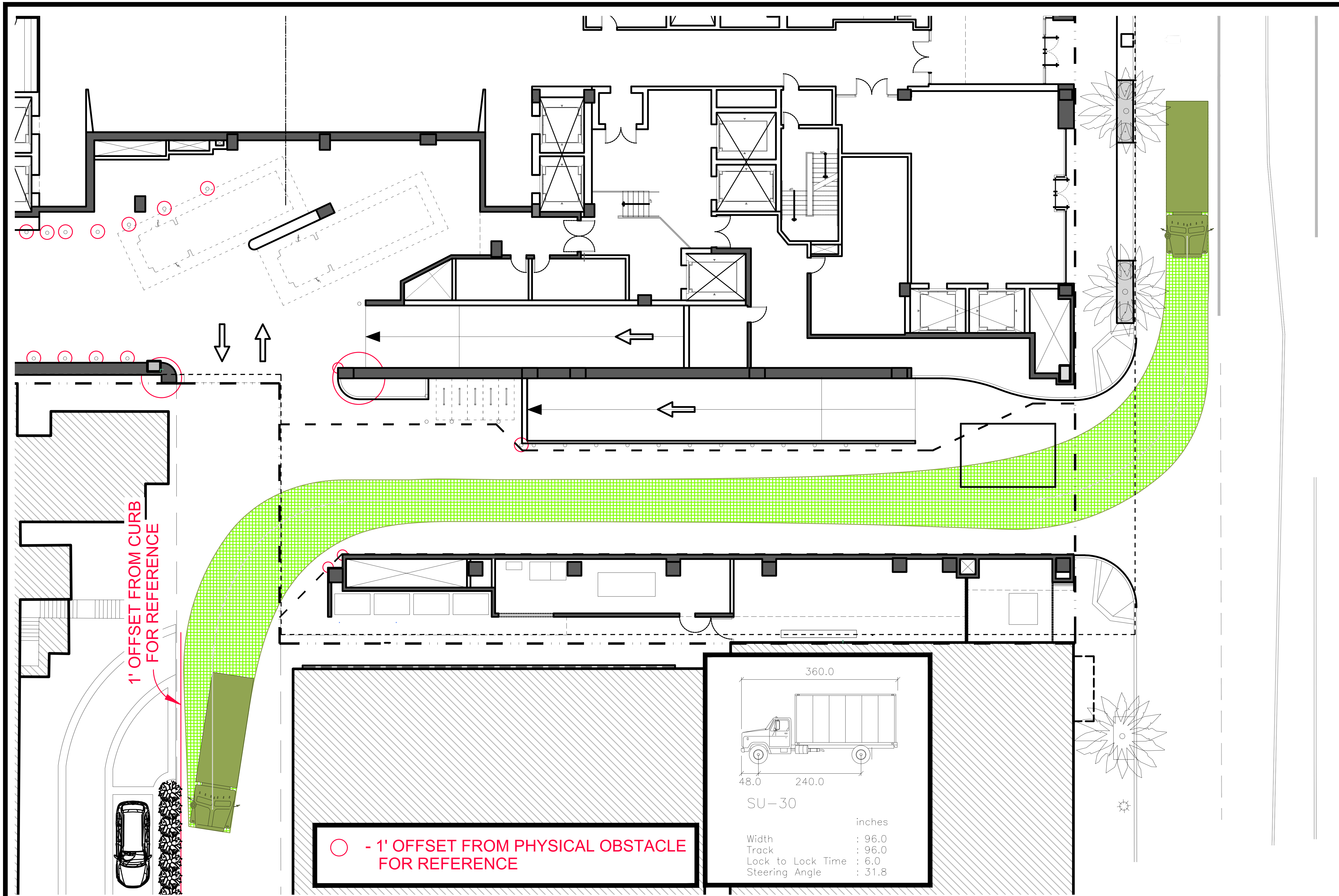
15 MINUTE	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
(START TIME)	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
2:00 PM	6	0	0	0	0	6	0	1	0	0	0	1	6	1	0	0	0	7
2:15 PM	5	1	0	0	0	6	0	0	0	0	0	0	5	1	0	0	0	6
2:30 PM	5	0	0	0	0	5	1	0	0	0	0	1	6	0	0	0	0	6
2:45 PM	9	0	0	0	0	9	1	0	0	0	0	1	10	0	0	0	0	10
3:00 PM	3	1	0	0	0	4	1	0	0	0	0	1	4	1	0	0	0	5
3:15 PM	6	0	0	0	0	6	3	0	0	0	0	3	9	0	0	0	0	9
3:30 PM	9	0	0	0	0	9	3	0	0	0	0	3	12	0	0	0	0	12
3:45 PM	6	0	0	0	0	6	2	0	0	0	0	2	8	0	0	0	0	8
4:00 PM	6	0	0	0	0	6	3	0	0	0	0	3	9	0	0	0	0	9
4:15 PM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
4:30 PM	3	0	0	0	0	3	3	0	0	0	0	3	6	0	0	0	0	6
4:45 PM	3	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	3
5:00 PM	6	0	0	0	0	6	0	0	0	0	0	0	6	0	0	0	0	6
5:15 PM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
5:30 PM	5	0	0	0	0	5	1	0	0	0	0	1	6	0	0	0	0	6
5:45 PM	2	0	0	0	0	2	1	0	0	0	0	1	3	0	0	0	0	3
6:00 PM	4	0	0	0	0	4	0	0	0	0	0	0	4	0	0	0	0	4
6:15 PM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
6:30 PM	1	0	0	0	0	1	1	0	0	0	0	1	2	0	0	0	0	2
6:45 PM	2	0	0	0	0	2	2	0	0	0	0	2	4	0	0	0	0	4
7:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
7:15 PM	4	0	0	0	0	4	1	0	0	0	0	1	5	0	0	0	0	5
7:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
7:45 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
8:00 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
8:15 PM	1	1	0	0	0	2	0	0	0	0	0	0	1	1	0	0	0	2
8:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
10:30 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
10:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1
11:00 PM	2	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	2
11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1

	EASTBOUND RIGHT TURN ENTRY						WESTBOUND LEFT TURN ENTRY						TOTAL ENTRY					
TOTALS	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL	AUTOS	DELIVERY	GARBAGE	SEMI	MC	TOTAL
AM	24	1	0	0	0	25	12	1	0	0	0	13	36	2	0	0	0	38
MIDDAY	72	0	0	0	0	72	38	0	0	0	0	38	110	0	0	0	0	110
PM	105	3	0	0	0	108	26	1	0	0	0	27	131	4	0	0	0	135
DAILY	201	4	0	0	0	205	76	2	0	0	0	78	277	6	0	0	0	283

DATA PROVIDED BY:

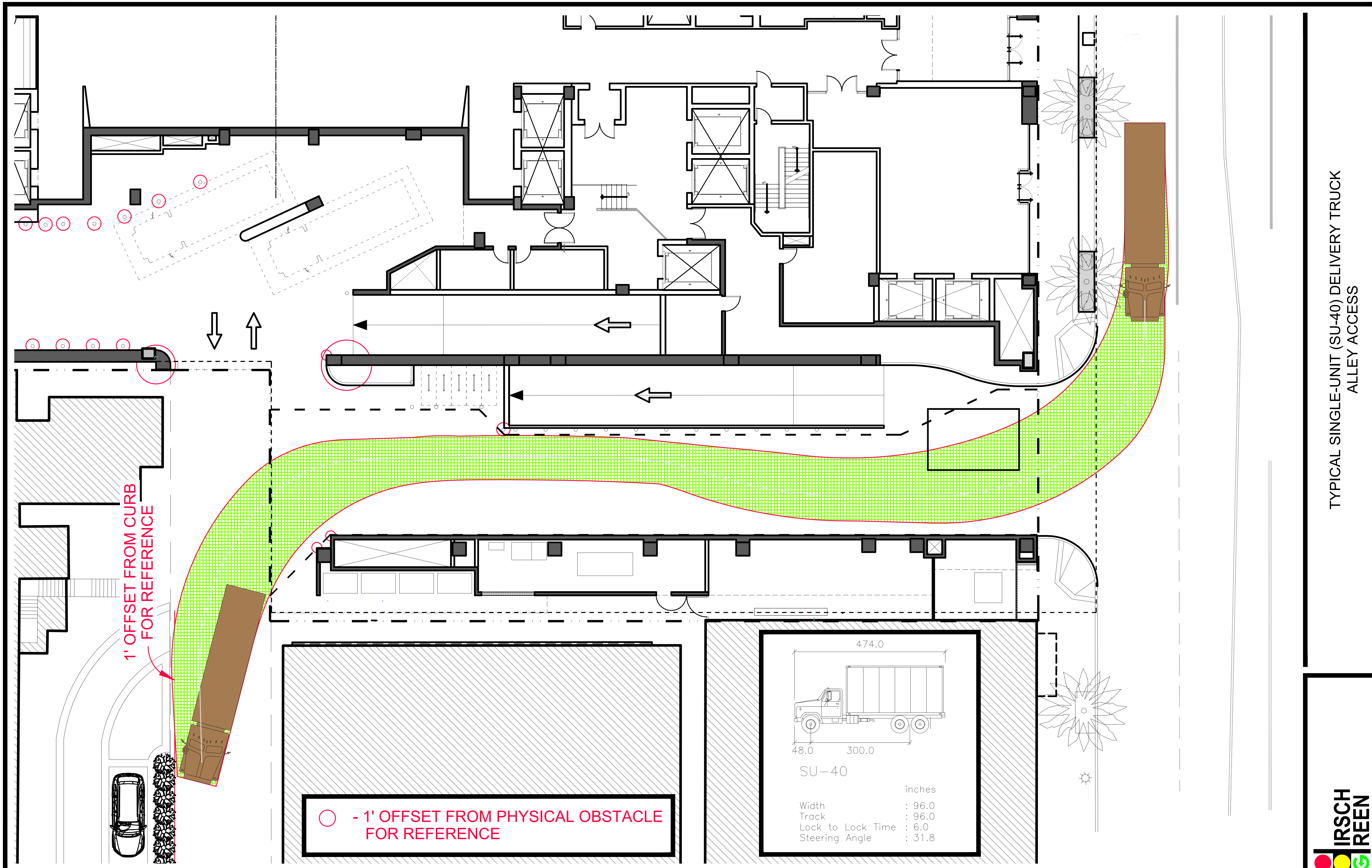
NATIONAL DATA AND SURVEYING SERVICES
1535 S. LA CIENEGA BOULEVARD
LOS ANGELES, CALIFORNIA 90035
PH: (323) 782-0090
WWW.NDSDATA.COM

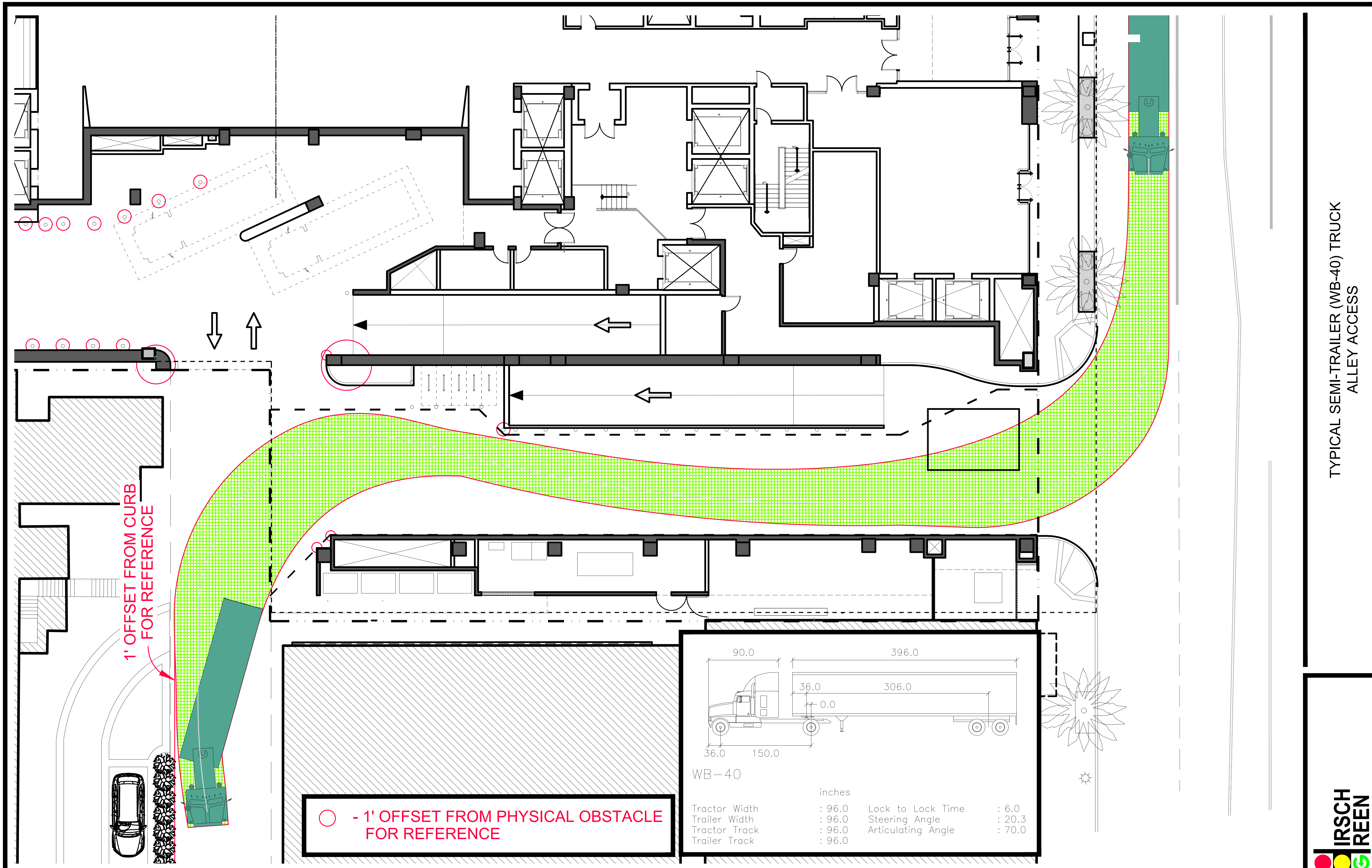
RELOCATED ALLEY VEHICULAR ACCESS TURNING MOVEMENT DIAGRAMS

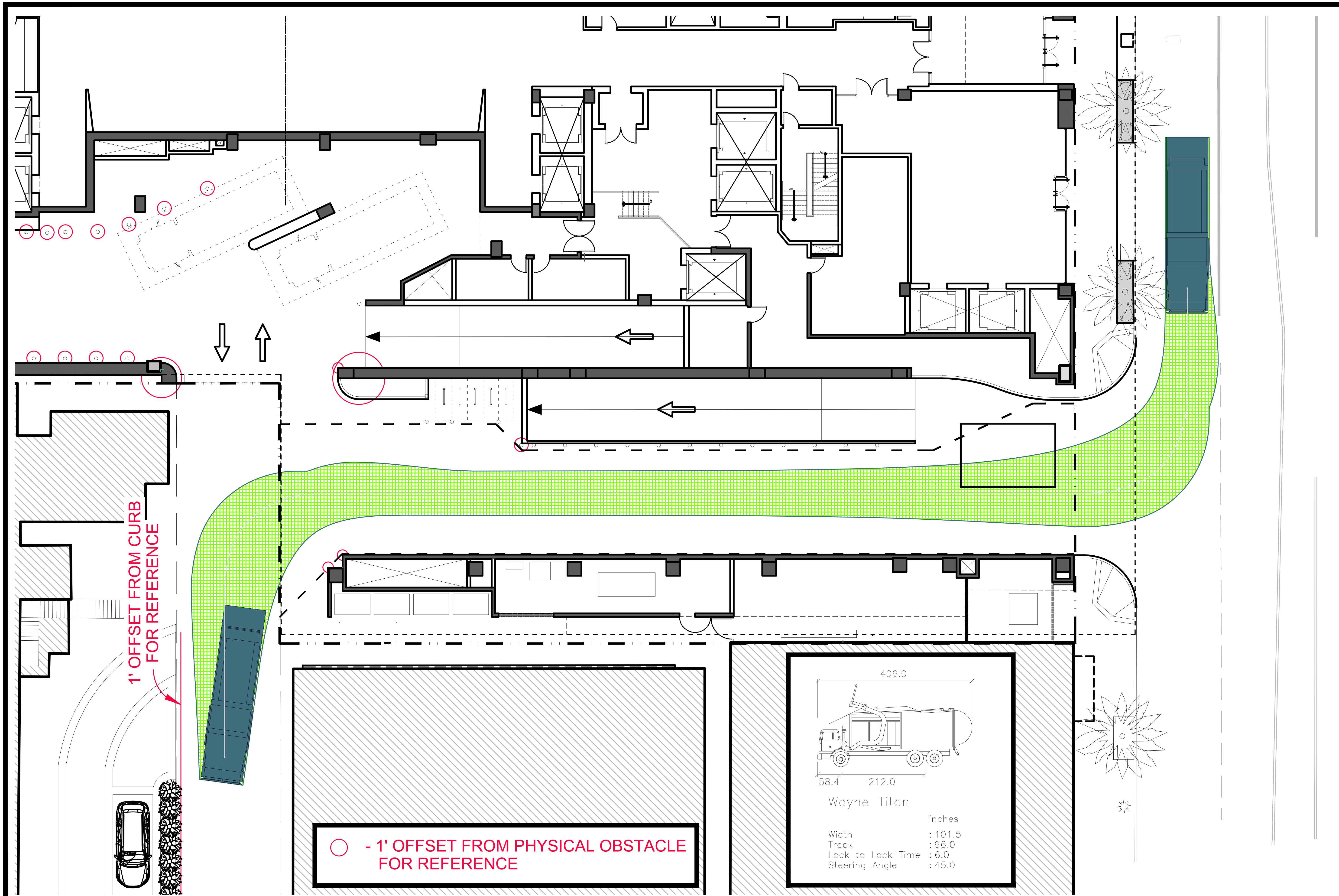


TYPICAL SINGLE-UNIT (SU-30) DELIVERY TRUCK
ALLEY ACCESS

Hirsch/Green Transportation Consulting, Inc.

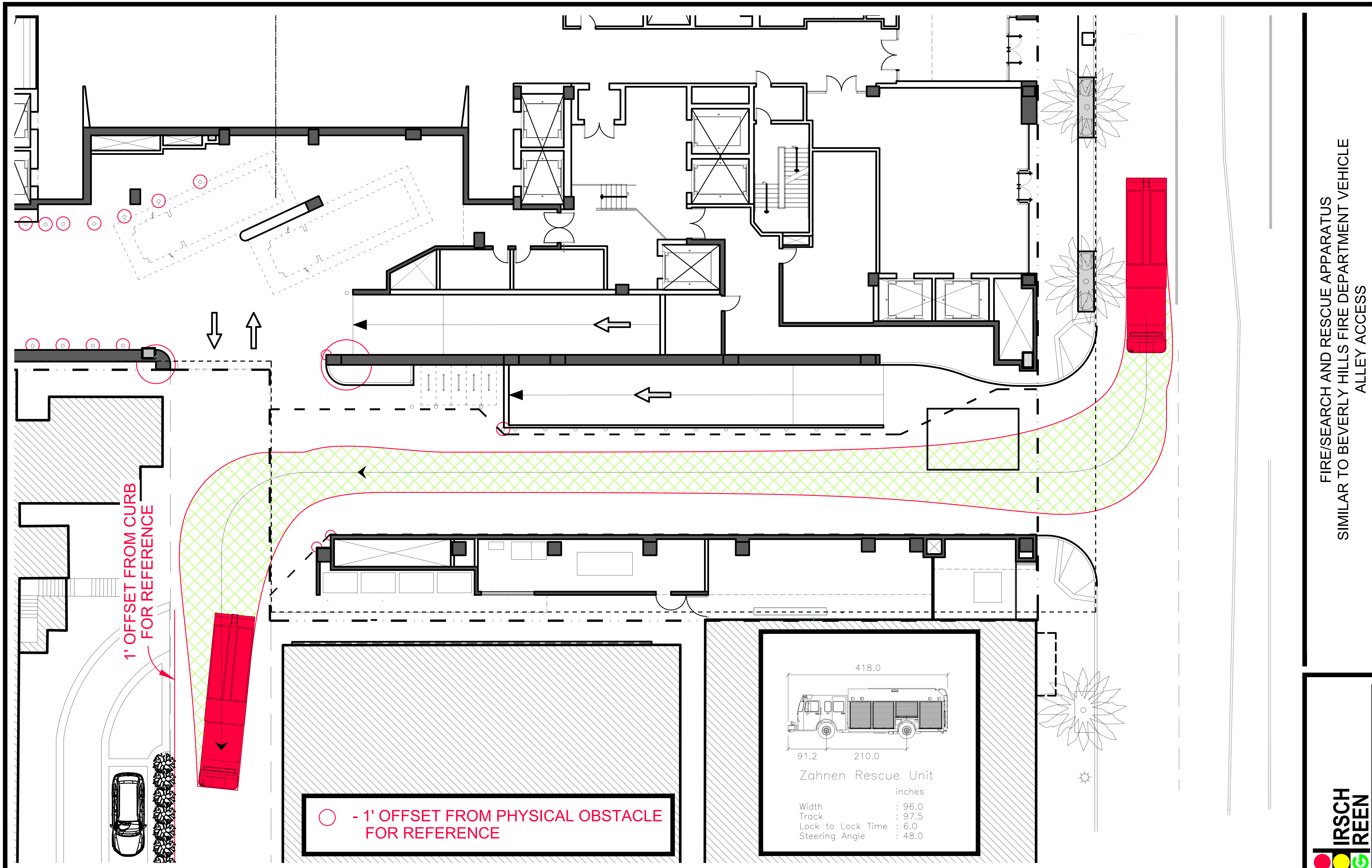

TYPICAL SINGLE-UNIT (SU-40) DELIVERY TRUCK
ALLEY ACCESS
1' OFFSET FROM CURB
FOR REFERENCE
- 1' OFFSET FROM PHYSICAL OBSTACLE
FOR REFERENCE
474.0
48.0
300.0
SU-40
inches
Width : 96.0
Track : 96.0
Lock to Lock Time : 6.0
Steering Angle : 31.8
HIRSCH
GREEN
Hirsch/Green Transportation Consulting, Inc.

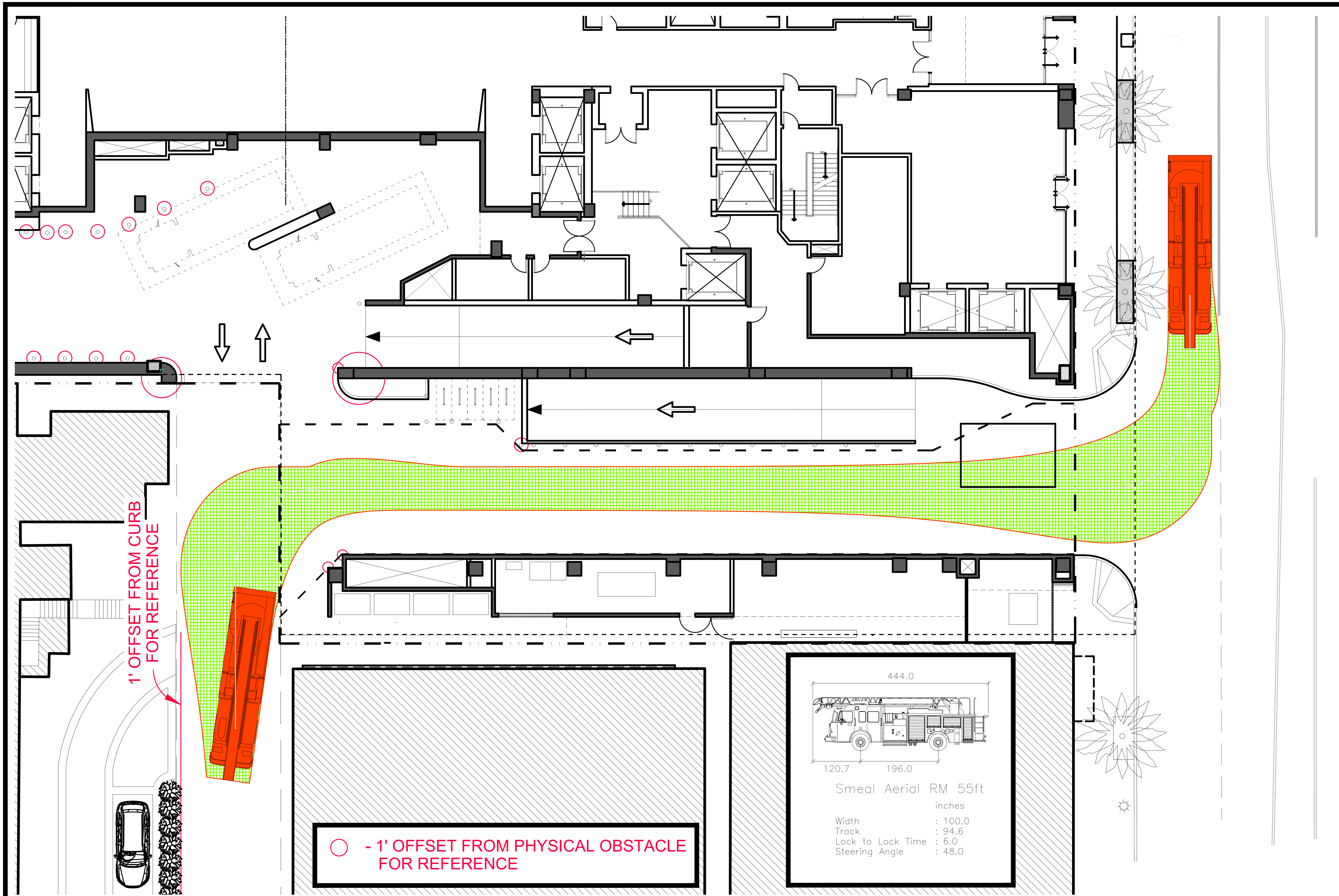

TYPICAL SEMI-TRAILER (WB-40) TRUCK
ALLEY ACCESS
1' OFFSET FROM CURB
FOR REFERENCE
- 1' OFFSET FROM PHYSICAL OBSTACLE
FOR REFERENCE
90.0
396.0
36.0
306.0
0.0
36.0
150.0
WB-40
inches
Tractor Width : 96.0
Trailer Width : 96.0
Tractor Track : 96.0
Trailer Track : 96.0
Lock to Lock Time : 6.0
Steering Angle : 20.3
Articulating Angle : 70.0
IRSCH
REEN
Hirsch/Green Transportation Consulting, Inc.



TYPICAL GARBAGE TRUCK
ALLEY ACCESS

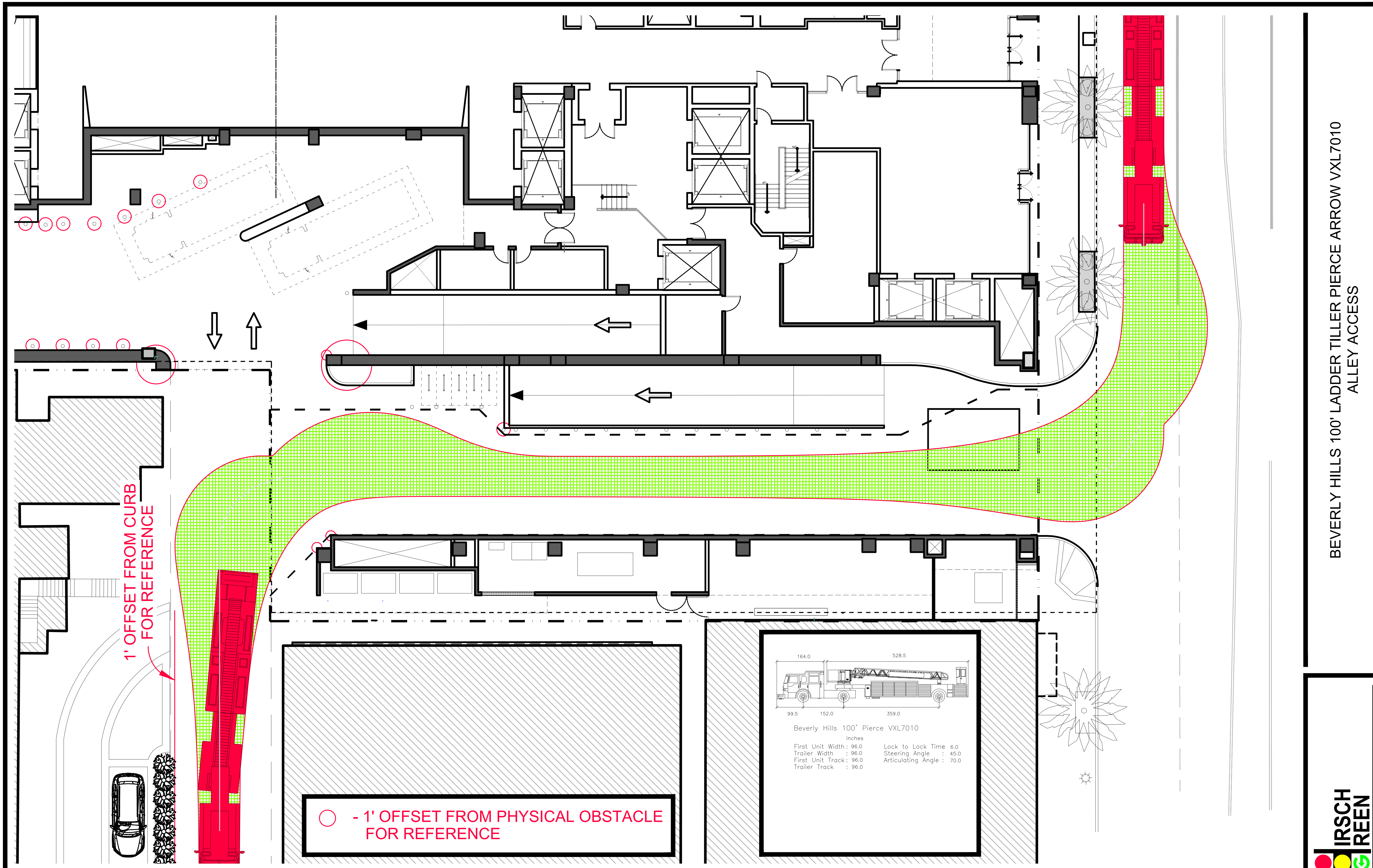
HIRSCH GREEN
Hirsch/Green Transportation Consulting, Inc.


FIRE/SEARCH AND RESCUE APPARATUS
SIMILAR TO BEVERLY HILLS FIRE DEPARTMENT VEHICLE
ALLEY ACCESS
1' OFFSET FROM CURB
FOR REFERENCE
- 1' OFFSET FROM PHYSICAL OBSTACLE
FOR REFERENCE
418.0
91.2
210.0
Zahnen Rescue Unit
inches
Width : 96.0
Track : 97.5
Lock to Lock Time : 6.0
Steering Angle : 48.0
HIRSCH GREEN
Hirsch/Green Transportation Consulting, Inc.



SMEAL AERIAL FIRE APPARATUS
(APPROXIMATELY 24" LONGER IN OVERALL LENGTH THAN BHFD USAR VEHICLE)
ALLEY ACCESS

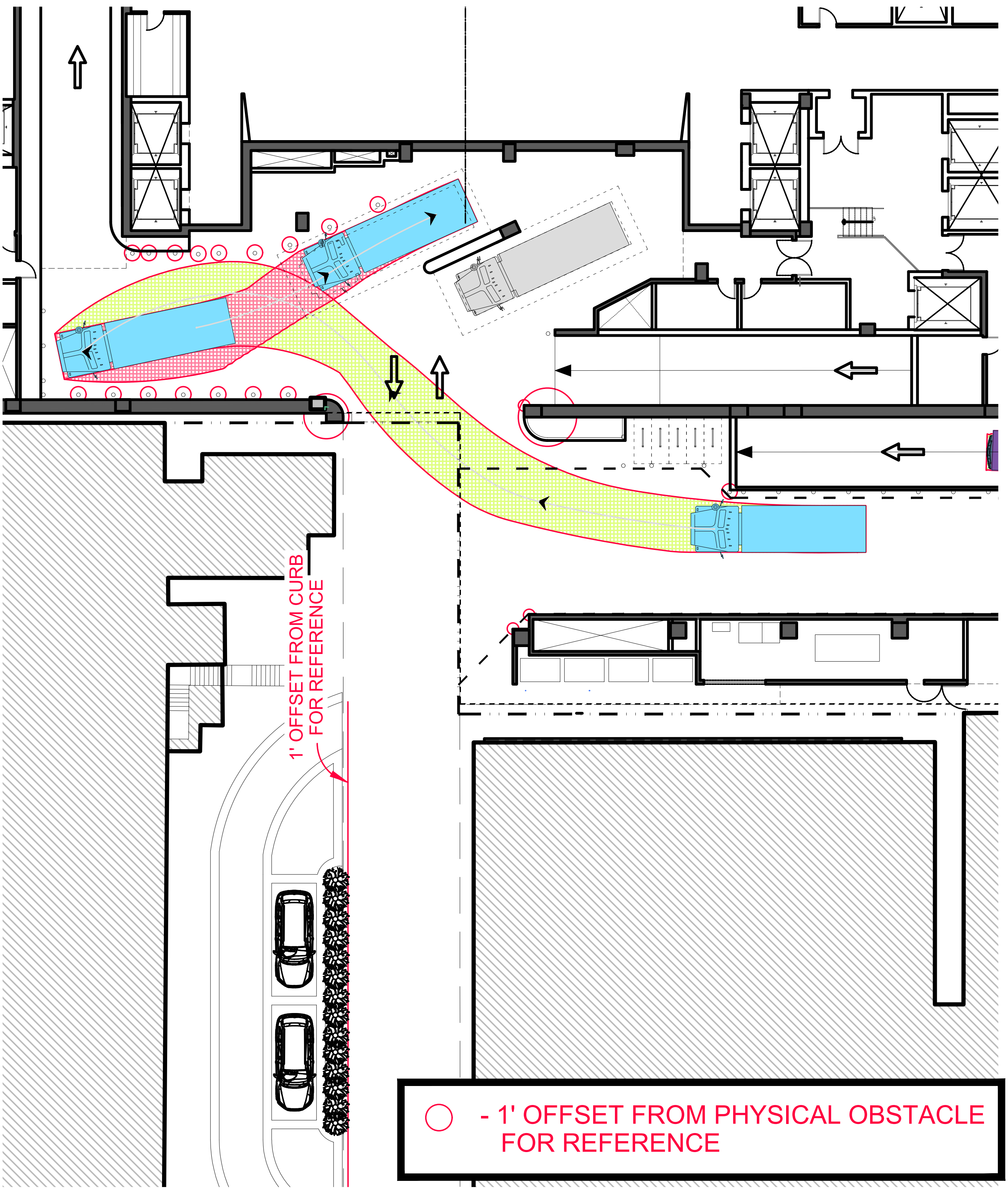
HIRSCH GREEN
Hirsch/Green Transportation Consulting, Inc.



BEVERLY HILLS 100' LADDER TILLER PIERCE ARROW VXL7010
ALLEY ACCESS
1' OFFSET FROM CURB
FOR REFERENCE
- 1' OFFSET FROM PHYSICAL OBSTACLE
FOR REFERENCE
164.0
528.5
99.5
152.0
359.0
Beverly Hills 100' Pierce VXL7010
inches
First Unit Width : 96.0
Trailer Width : 96.0
First Unit Track : 96.0
Trailer Track : 96.0
Lock to Lock Time 6.0
Steering Angle : 45.0
Articulating Angle : 70.0
HIRSCH GREEN
Hirsch/Green Transportation Consulting, Inc.

PROPOSED PROJECT LOADING BAY VEHICULAR ACCESS DIAGRAMS

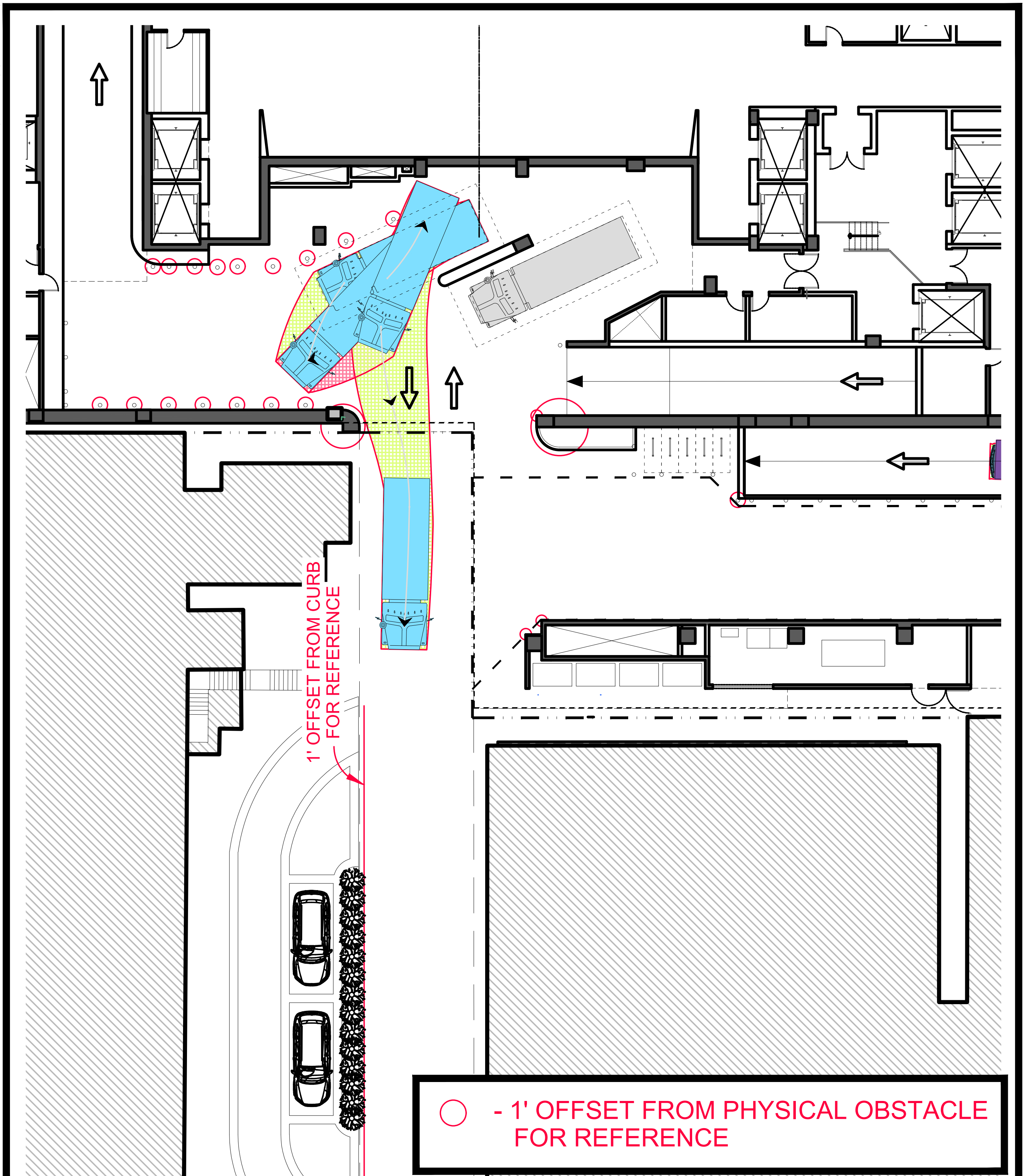
CHEVAL BLANC BEVERY HILLS \ VEHICLE ACCESS (VER 15A) (12-23-2021)



12/23/2021

Hirsch/Green Transportation Consulting, Inc.

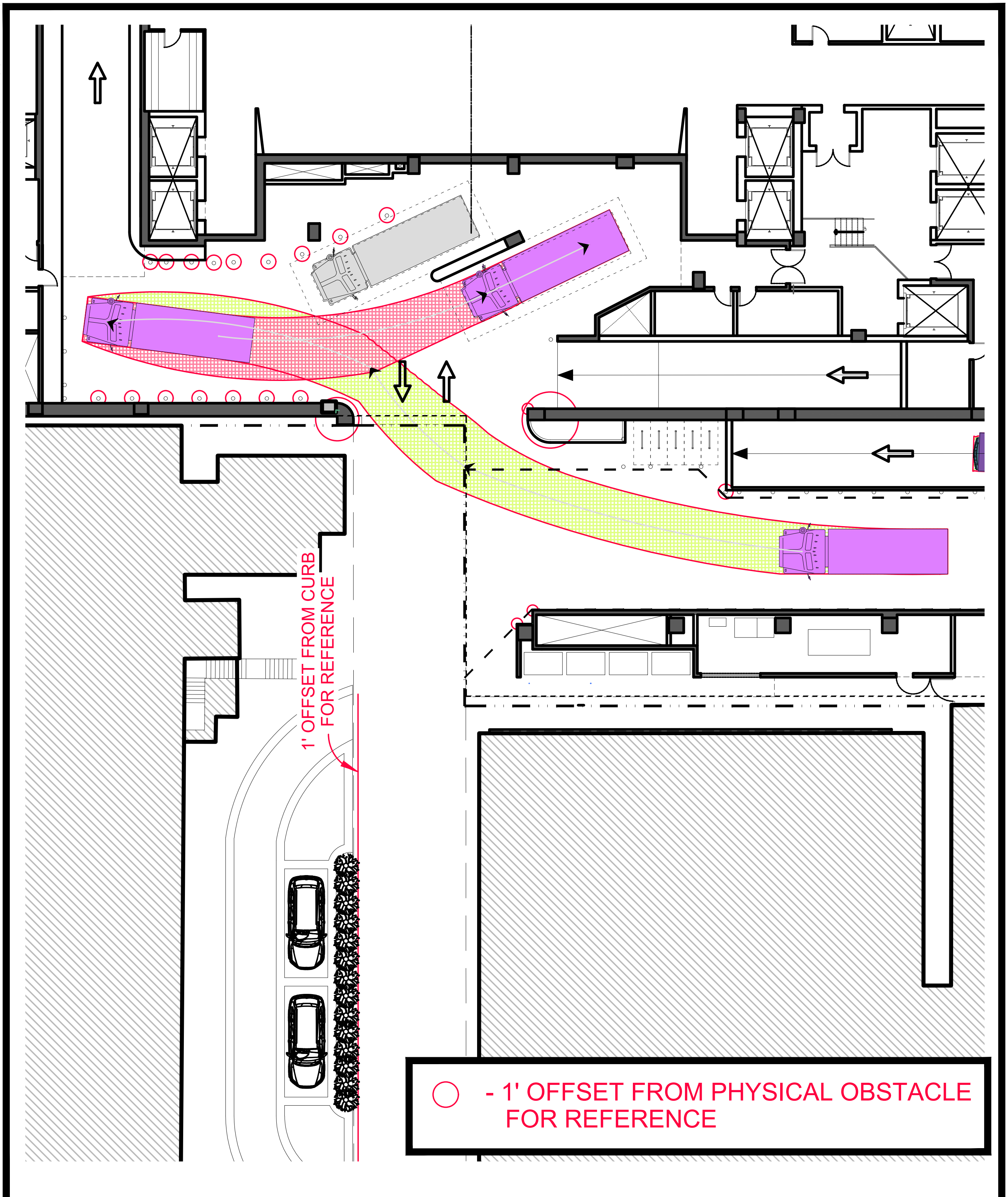
TYPICAL SINGLE-UNIT (SU-30) DELIVERY TRUCK
LOADING BAY #1 (ENTRY)



12/23/2021

Hirsch/Green Transportation Consulting, Inc.

TYPICAL SINGLE-UNIT (SU-30) DELIVERY TRUCK
LOADING BAY #1 (EXIT)

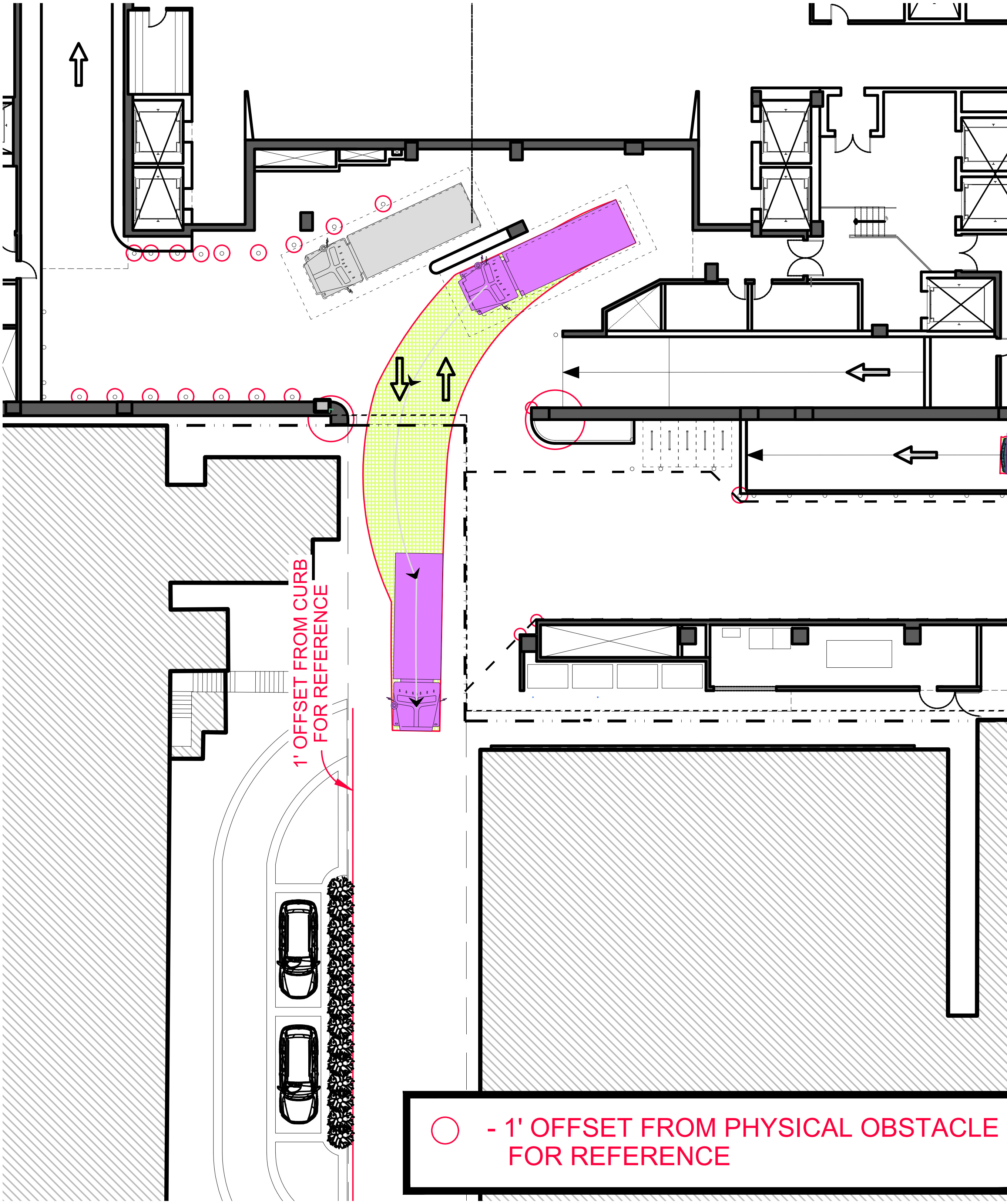


12/23/2021

HIRSCH GREEN

Hirsch/Green Transportation Consulting, Inc.

TYPICAL SINGLE-UNIT (SU-30) DELIVERY TRUCK
LOADING BAY #2 (ENTRY)

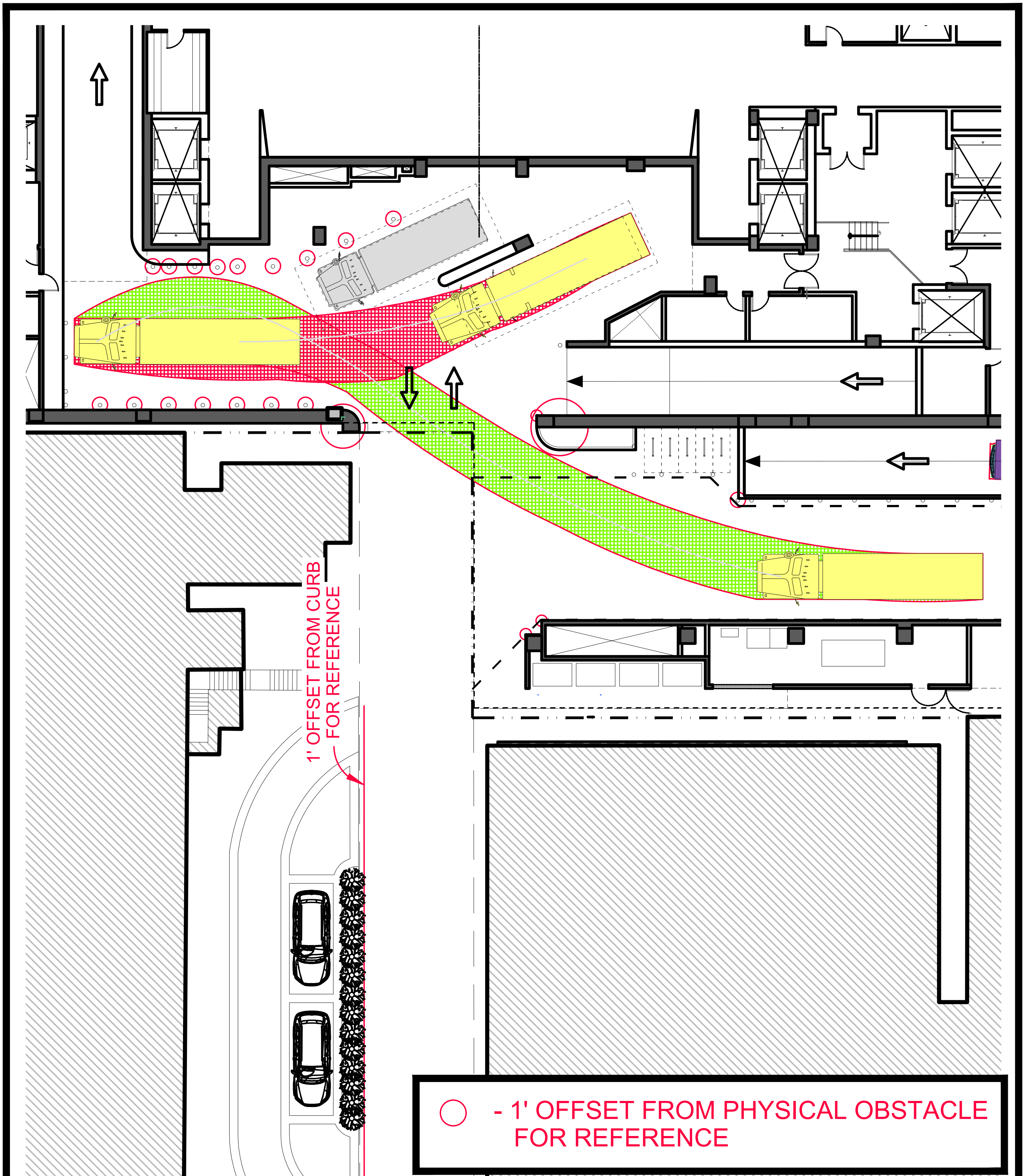


HIRSCH GREEN

Hirsch/Green Transportation Consulting, Inc.

TYPICAL SINGLE-UNIT (SU-30) DELIVERY TRUCK
LOADING BAY #2 (EXIT)

CHEVAL BLANC BEVERY HILLS \ VEHICLE ACCESS (VER 15A) (12-23-2021)

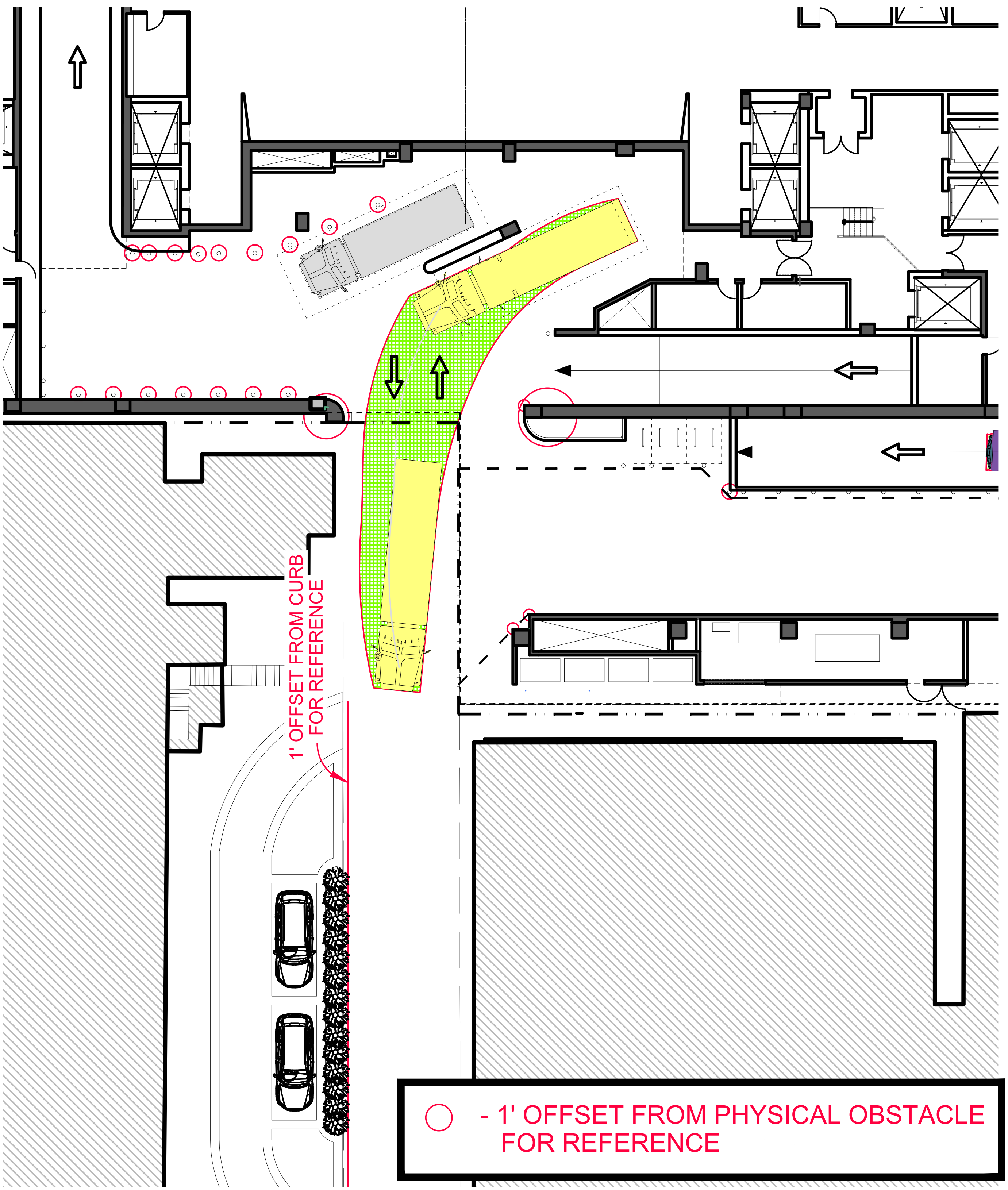


12/23/2021

HIRSCH GREEN
Hirsch/Green Transportation Consulting, Inc.

TYPICAL SINGLE-UNIT (SU-40) DELIVERY TRUCK
LOADING BAY #2 (ENTRY)

CHEVAL BLANC BEVERY HILLS \ VEHICLE ACCESS (VER 15A) (12-23-2021)



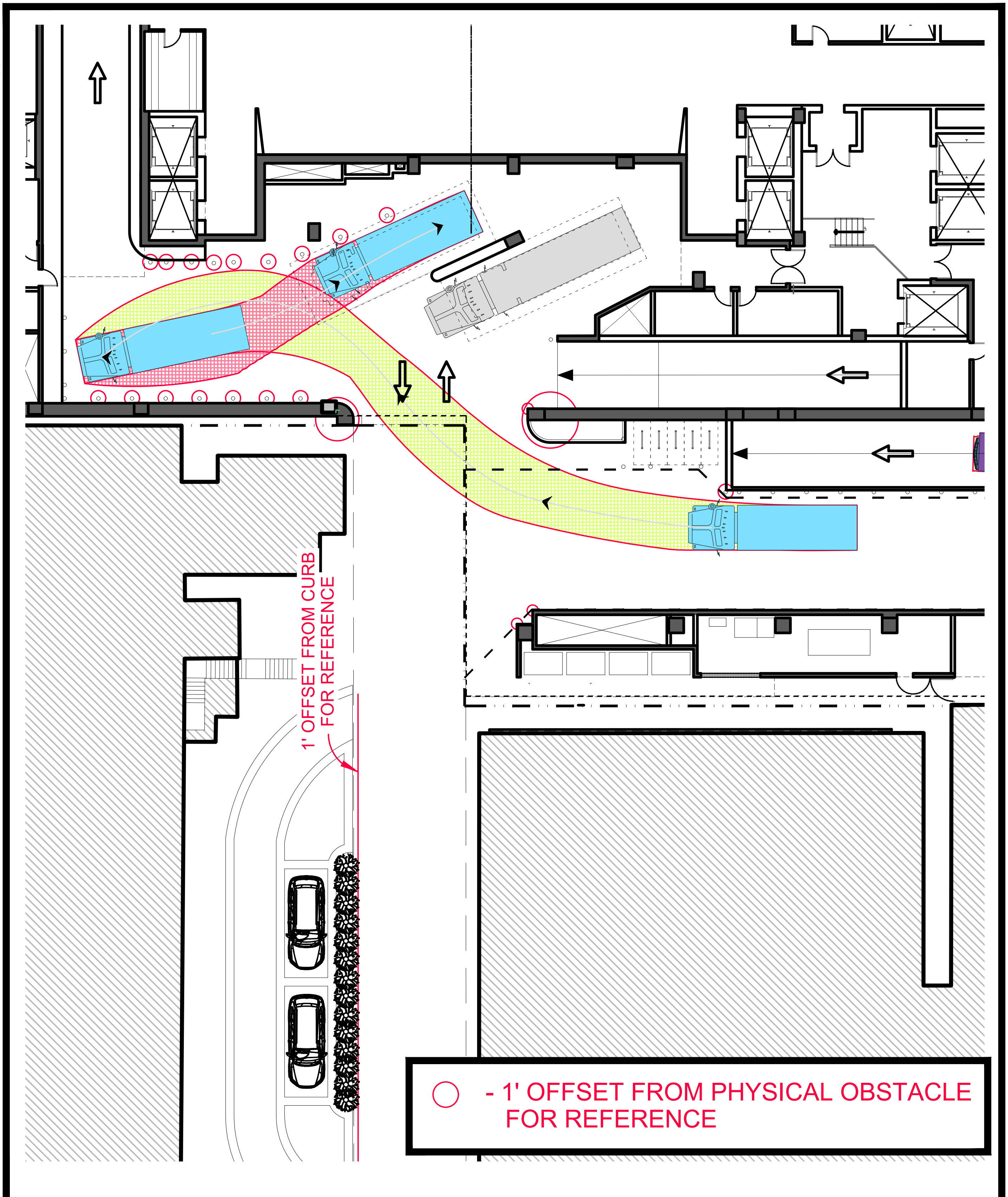
12/23/2021

HIRSCH GREEN

Hirsch/Green Transportation Consulting, Inc.

TYPICAL SINGLE-UNIT (SU-40) DELIVERY TRUCK
LOADING BAY #2 (EXIT)

CHEVAL BLANC BEVERY HILLS \ VEHICLE ACCESS (VER 15A) (12-23-2021)



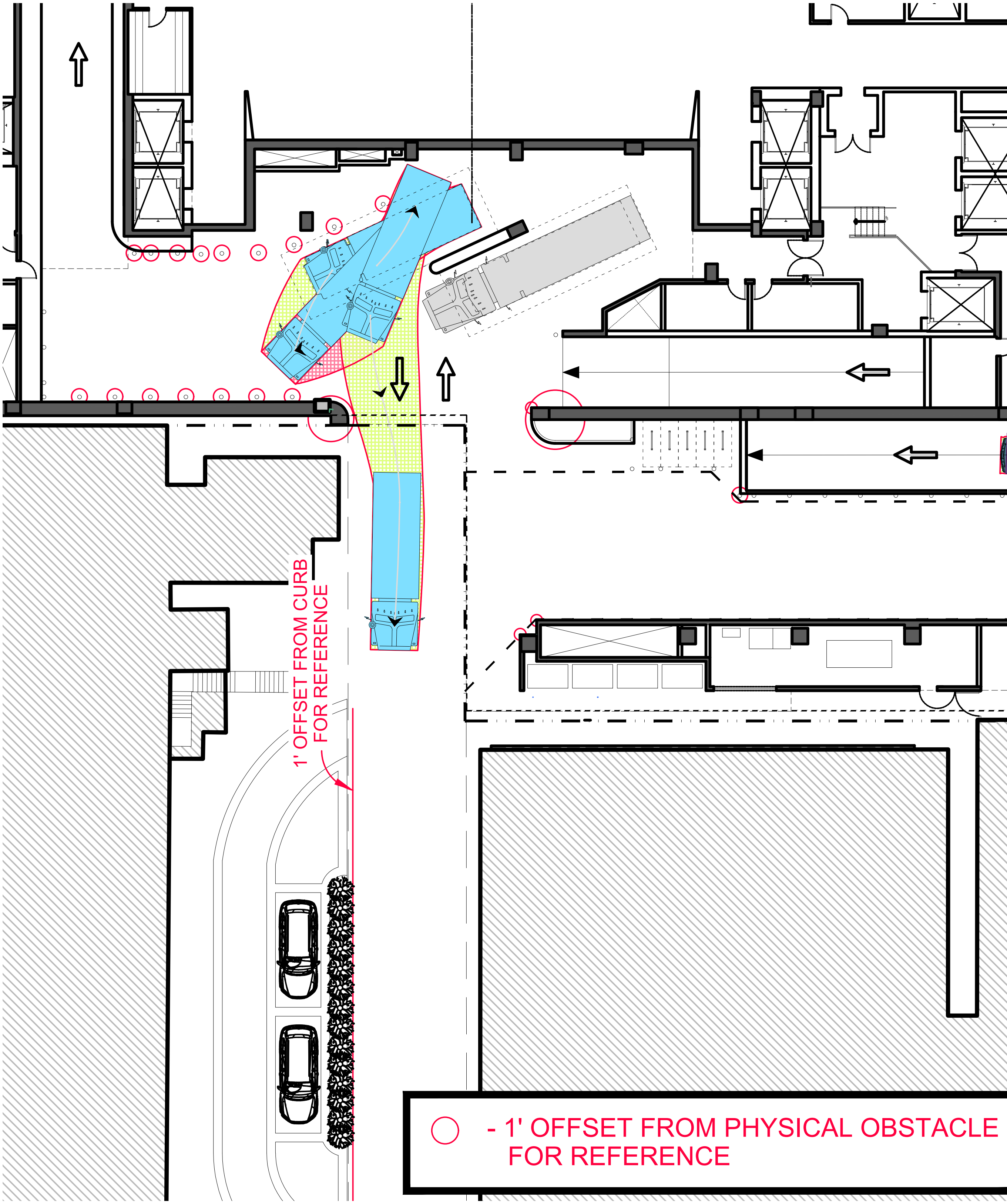
12/23/2021

HIRSCH GREEN

Hirsch/Green Transportation Consulting, Inc.

TYPICAL SINGLE-UNIT (SU-30) DELIVERY TRUCK
LOADING BAY #1 (ENTRY)
(WITH SU-40 OCCUPYING LOADING BAY #2)

CHEVAL BLANC BEVERY HILLS \ VEHICLE ACCESS (VER 15A) (12-23-2021)



12/23/2021

HIRSCH GREEN

Hirsch/Green Transportation Consulting, Inc.

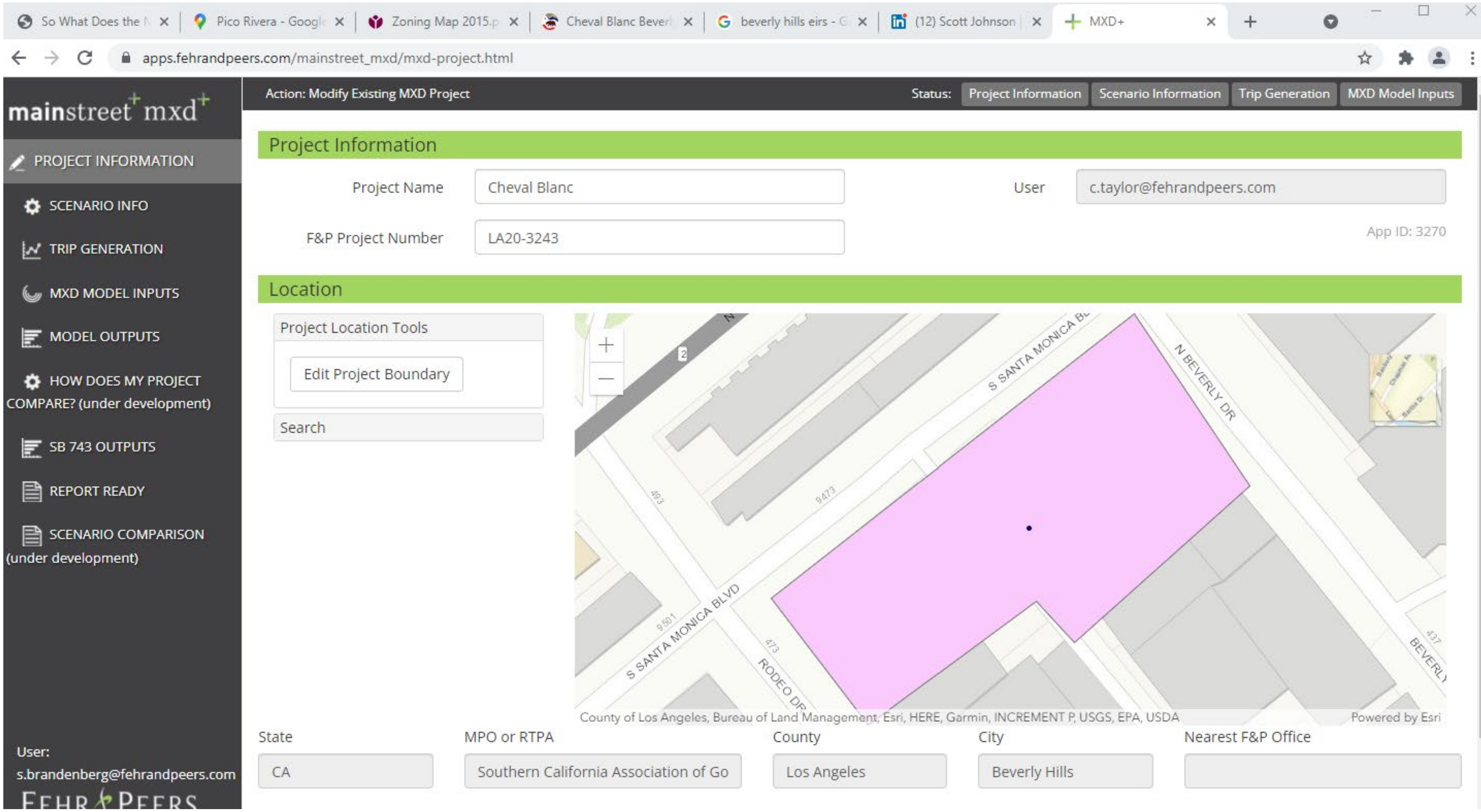
TYPICAL SINGLE-UNIT (SU-30) DELIVERY TRUCK
LOADING BAY #1 (EXIT)
(WITH SU-40 OCCUPYING LOADING BAY #2)

Appendix H.5

MXD Model Results

Chavel Blanc MXD+ Model

Fehr & Peers, December 2021



Model Outputs (Vehicle Trips)

Land Use	Units[1]	ITE Code	Quantity	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Net New Uses										
(931) - Quality Restaurant (Adj Streets, 7-9A, 4-6P)	1000 Sq. Ft. FLA	931[2]	25.094	2104	0	0	18	131	65	196
(918) - Hair Salon (Adj Streets, 7-9A, 4-6P)	1000 Sq. Ft. FLA	918[3]	12.936	0	0	0	16	3	16	19
Custom	Custom	000[4]	500	180	16	4	20	32	8	40
(310) - Hotel (Adj Streets, 7-9A, 4-6P)	Rooms	310[5]	115	961	32	22	54	35	34	69
(820) - Shopping Center (Adj Street, 7-9A, 4-6P)	1000 Sq. Ft.	820[6]	24.976	943	14	9	23	46	49	95
Reductions										
Internal Capture				-24	-2	-2	-4	-28	-20	-48
External Walk, Bike, and Transit				-1,420	-23	-24	-47	-74	-51	-125
Total Reductions				-1,444	-25	-26	-51	-102	-71	-173
Net New Project Trips				2,744	37	9	80	145	101	246

1. **DU = dweling units. KSF = 1000 square feet**
2. **ITE Trip Generation land use category (931) - Quality Restaurant (Adj Streets, 7-9A, 4-6P)**
   - **Daily: T = 83.84(X)**
   - **AM Peak Hour: T = 0.73(X) (0% in, 0% out)**
   - **PM Peak Hour: T = 7.80(X) (67% in, 33% out)**
3. **ITE Trip Generation land use category (918) - Hair Salon (Adj Streets, 7-9A, 4-6P)**
   - **Daily: T = 0.00(X)**
   - **AM Peak Hour: T = 1.21(X) (0% in, 0% out)**
   - **PM Peak Hour: T = 1.45(X) (17% in, 83% out)**
4. **ITE Trip Generation land use category Custom**
   - **Daily: T = 0.00(X)**
   - **AM Peak Hour: T = 0.00(X)**
   - **PM Peak Hour: T = 0.00(X)**
5. **ITE Trip Generation land use category (310) - Hotel (Adj Streets, 7-9A, 4-6P)**
   - **Daily: T = 8.36(X)**
   - **AM Peak Hour: T = 0.47(X) (59% in, 41% out)**
   - **PM Peak Hour: T = 0.60(X) (51% in, 49% out)**
6. **ITE Trip Generation land use category (820) - Shopping Center (Adj Street, 7-9A, 4-6P)**
   - **Daily: T = 37.75(X)**
   - **AM Peak Hour: T = 0.94(X) (62% in, 38% out)**
   - **PM Peak Hour: T = 3.81(X) (48% in, 52% out)**
7. **Reductions based on application of MXD+ model:**
   - **Total Reductions: Daily = 34.5%, AM Peak Hour = 39.3%, PM Peak Hour = 41.3%**
   - **Internal Capture: Daily = 0.6%, AM Peak Hour = 3.1%, PM Peak Hour = 11.5%**
   - **External Walk, Bike, and Transit: Daily = 33.9%, AM Peak Hour = 36.2%, PM Peak Hour = 29.8%**
8. **Sources:**
   - ***ITE Trip Generation Manual*, 9th and 10th Edition**
   - **Fehr and Peers**
9. **Person Trips:**
   - **Person Trips derived using the following average vehicle occupancy rates, applied to ITE Vehicle Trip Generation:**
   - **HBW AVO:1.05**
   - **HBO AVO:1.05**
   - **NHW AVO:1.05**

Model Inputs

Input Variable	Input Value	Source
MXD specific inputs		
Project Area (Acres)	1.277	GIS
Intersections per Square Mile	191	EPA Smart Location Database (2013) - 2010 Scenario
Employment within 1 mile of Project Site	38862	City Model 2035
Share of regional employment within a 30 minute trip by transit	0.04497502	EPA Smart Location Database (2013) - 2010 Scenario
Surrounding Household Size	1.97	Census 2010 - All Housing Types
Surrounding Vehicle Ownership	1.40	Census 2000 - All Housing Types
Site Household Size	1.97	Census 2010 - All Housing Types
Site Vehicle Ownership	1.37	ACS 2012 (5-year) - All Housing Types
Average Vehicle Occupancy (HBW Trips)	1.0	NCHRP 758
Average Vehicle Occupancy (HBO Trips)	1.0	NCHRP 758
Average Vehicle Occupancy (NHB Trips)	1.0	NCHRP 758